# Swarthmore 

College Bulletin 2014-2015
Volume CXII Number 1
Catalog Issue August 2014

Swarthmore College, 500 College Avenue, Swarthmore PA 19081-1390
Online at www.swarthmore.edu
Main number 610-328-8000


## Table of Contents



## 2014

Aug. 22-26
Aug. 26
Aug. 26-31
Aug. 28

Aug. 29
Aug. 29
Aug. 30

Aug. 31
Sept. 1
Sept. 12
Sept. 19-20
Oct. 1
Oct. 10
Oct. 20
Oct. 31-Nov. 2
Nov. 5
Nov. 7

Nov. 10-20
Nov. 24-26
Nov. 26
Nov. 26
Dec. 1
Dec. 1

Dec. 5-6
Dec. 8-9

Dec. 9

Dec. 12
Dec. 12-20

Dec. 19
Dec. 20

Fall Semester
International student orientation.
Residence halls open for new students.
Orientation and placement days.
Advising begins. All-adviser meeting in morning. Individual advising begins in afternoon.
Residence halls open for returning students.
Computer preregistration for first-year and transfer students only.
Registration follow-up meeting for students who need to make a change to their schedule.
Meal plan starts at dinner for returning students.
Classes and seminars begin. Labor Day
Drop/add ends. Last day to delete a course from or add one to permanent registration.
Board of Managers meeting.
Final examination schedule available online.
October break begins at end of last class or seminar.
October break ends at 8:30 a.m.
Garnet Homecoming and Family Weekend.
Schedule of courses and seminars for next semester available online.
Last day to declare CR/NC grading option. Last day to withdraw from a course and receive the grade notation "W."
Advising period.
Pre-enrollment for spring semester.
Pre-enrollment ends at 4 p.m.
Thanksgiving break begins at end of last class or seminar.
Thanksgiving break ends at 8:30 a.m.
All accounts must show a zero or positive balance to enroll or select a room for spring semester.
Board of Managers meeting.
Monday follows the "Friday" class schedule, replacing the Friday of Thanksgiving break. Tuesday follows the "Thursday" class schedule, replacing the Thursday of Thanksgiving break.
Classes end.
Lottery for spring housing.
Final examinations begin.
Note: Final examinations are not rescheduled to accommodate travel plans. If you must make travel arrangements before the examination schedule is published (by Oct. 1), do not expect to leave until after finals.
Seminars end.
Final examinations end at noon.
Meal plan ends at lunch. Residence halls close at 6 p.m.

## College Calendar

| 2015 | Spring Semester |
| :---: | :---: |
| Jan. 17 | Residence halls open at noon. |
| Jan. 18 | Meal plan starts at dinner. |
| Jan. 19 | Classes and seminars begin. |
| Jan. 30 | Drop/add ends. Last day to delete a course from or add one to permanent registration. |
| Feb. 20-21 | Board of Managers meeting. |
| March 6 | Spring break begins at end of last class or seminar. |
| March 16 | Spring break ends at 8:30 a.m. |
| March 27 | Last day to declare CR/NC grading option. Last day to withdraw from a course and receive the grade notation "W." |
| April 1 | Schedule of courses and seminars for next semester available online. |
|  | All accounts must show a zero or positive balance for students to enroll and select a room for the fall semester. |
| April 6-16 | Advising period. |
| April 20-22 | Pre-enrollment for fall semester. |
| April 22 | Pre-enrollment ends at 4 p.m. |
| May 1 | Classes and seminars end. |
| May 1-2 | Board of Managers meeting. |
| May 5 | Course Finals and Written Honors examinations begin. |
| May 14 | Course Finals and Written Honors examinations end. |
|  | Meal plan ends at dinner for all but seniors. |
|  | Residence halls close to all but seniors at 8 a.m. (Non-seniors are expected to leave the College within 24 hours after their last examination.) |
| May 18-19 | Senior comprehensive examinations. |
| May 17-19 | Oral honors examinations. |
| May 23 | Baccalaureate. |
| May24 | Commencement. |
| May 25 | Residence halls close to seniors at 9 a.m. |
| May 29-31 | Alumni Weekend. |

## 2015

Aug. 21-25
Aug. 25
Aug 25-30
Aug. 27

Aug. 28

Aug. 29
Aug 30
Aug 31
Sept. 11
Sept. 18-19
Oct. 1
Oct.
Oct. 9
Oct. 19
Nov. 3
Nov. 6

Nov. 9-19
Nov. 23-25
Nov. 25
Nov 26-27
Dec. 1
Nov 30
Dec. 4-5
Dec. 7-8

Dec. 8

Dec. 11
Dec. 11-19

Dec. 18
Dec. 19

Fall Semester
International student orientation.
Residence halls open for new students.
Orientation and placement days.
Advising begins. All-adviser meeting in morning. Individual advising begins in afternoon.
Residence halls open for returning students.
Computer preregistration for first-year and transfer students only.
Registration follow-up meeting for students who need to make a change to their schedule.
Meal plan starts at dinner for returning students.
Classes and seminars begin.
Drop/add ends. Last day to delete a course from or add one to permanent registration.
Board of Managers meeting.
Final examination schedule available online.
Garnet Homecoming and Family Weekend.
October break begins at end of last class or seminar.
October break ends at 8:30 a.m.
Schedule of courses and seminars for next semester available online.
Last day to declare CR/NC grading option. Last day to withdraw from a course and receive the grade notation "W."
Advising period.
Pre-enrollment for spring semester.
Pre-enrollment ends at 4 p.m.
Thanksgiving break..
All accounts must show a zero or positive balance to enroll or select a room for spring semester.
Fall classes Resume 8:30 am
Board of Managers meeting.
Monday follows the "Friday" class schedule, replacing the Friday of Thanksgiving break. Tuesday follows the "Thursday" class schedule, replacing the Thursday of Thanksgiving break.
Classes end.
Lottery for spring housing.
Final examinations begin.
Note: Final examinations are not rescheduled to accommodate travel plans. If you must make travel arrangements before the examination schedule is published (by Oct. 1), do not expect to leave until after finals.
Seminars end.
Final examinations end at noon.
Residence halls close at 6 p.m. Meal plan ends at lunch.

| 2016 | Spring Semester |
| :---: | :---: |
| Jan. 16 | Residence halls open at noon. |
| Jan. 17 | Meal plan starts at dinner. |
| Jan. 18 | Classes and seminars begin. |
| Jan. 29 | Drop/add ends. Last day to delete a course from or add one to permanent registration. |
| Feb. 19-20 | Board of Managers meeting. |
| March 4 | Spring break begins at end of last class or seminar. |
| March 14 | Spring break ends at 8:30 a.m. |
| March 25 | Last day to declare CR/NC grading option. Last day to withdraw from a course and receive the grade notation "W." |
| April 1 | All accounts must show a zero or positive balance for students to enroll and select a room for the fall semester. |
| March 29 | Schedule of courses and seminars for next semester available online. |
| April 4-14 | Advising period. |
| April 18-20 | Pre-enrollment for fall semester. |
| April 20 | Pre-enrollment ends at 4 p.m. |
| Apr 29 | Classes and seminars end. |
| May 3 | Course Finals and Written Honors examinations begin. |
| May 6-7 | Board of Managers annual meeting. |
| May 12 | Course Finals and Written Honors examinations end. |
|  | Meal plan ends at dinner for all but seniors. |
|  | Residence halls close to all but seniors at 8 a.m. (Non-seniors are expected to leave the College within 24 hours after their last examination.) |
| May 16-17 | Senior comprehensive examinations. |
| May 15-17 | Oral honors examinations. |
| May 21 | Baccalaureate. |
| May 22 | Commencement. |
| May 23 | Residence halls close to seniors at 9 a.m. |
| May 27-29 | Alumni Weekend. |

## 1 Introduction to Swarthmore College

Swarthmore College, founded in 1864 by members of the Religious Society of Friends as a coeducational institution, occupies a campus of 425 acres of rolling wooded land in and adjacent to the Borough of Swarthmore in Delaware County, Pa. It is a small college by deliberate policy, with an enrollment of approximately 1,550 students. The Borough of Swarthmore is a residential suburb within half an hour's commuting distance of Philadelphia. College students are able to enjoy both the advantages of nearby rural settings and the opportunities offered by Philadelphia. The College's location also makes cooperation possible with three nearby institutions, Bryn Mawr and Haverford colleges and the University of Pennsylvania

### 2.1 Objectives and Purposes

Swarthmore students are expected to prepare themselves for full, balanced lives as individuals and as responsible citizens through exacting intellectual study supplemented by a varied program of sports and other extracurricular activities. The purpose of Swarthmore College is to make its students more valuable human beings and more useful members of society. Although it shares this purpose with other educational institutions, each school, college, and university seeks to realize that purpose in its own way. Swarthmore seeks to help its students realize their full intellectual and personal potential combined with a deep sense of ethical and social concern.

### 2.2 Varieties of Educational Experience

Education is largely an individual matter, for no two students are exactly alike. The Swarthmore College curriculum is designed to give recognition to this fact and seeks to evoke the maximum effort and development from each student. The
Swarthmore College Honors Program offers additional enriching and exciting intellectual experiences to students who choose to prepare for evaluation by examiners from other colleges and universities. Throughout the curriculum, options for independent study and interdisciplinary work offer opportunities for exploration and development over a wide range of individual goals. These opportunities typically include considerable flexibility of program choices from semester to semester, so that academic planning may be responsive to the emerging needs of students.

### 2.3 The Religious Tradition

Swarthmore College was founded by members of the Religious Society of Friends (the Quakers).
Although it has been nonsectarian in control since 1908 and Friends now compose a small minority of the student body, the faculty, and the administration, the College still values highly
many of the principles of that society. Foremost among these principles is the individual's responsibility for seeking and applying truth and for testing whatever truth one believes one has found. As a way of life, Quakerism emphasizes hard work, simple living, and generous giving as well as personal integrity, social justice, and the peaceful settlement of disputes. The College does not seek to impose on its students this Quaker view of life or any other specific set of convictions about the nature of things and the duties of human beings. It does, however, encourage ethical and religious concern about such matters and continuing examination of any view that may be held regarding them.

### 2.4 Tradition and Change

A college draws strength from tradition and energy from the necessity of change. Its purposes and policies must respond to new conditions and new demands. By being open to change, Swarthmore tries to provide for its students, by means appropriate to the times, the standard of excellence it has sought to maintain from its founding.

The primary educational resources of any college are the quality of its faculty and the spirit of the institution. Financial as well as physical resources play an important supportive role.

### 2.1 The Endowment

The educational resources at Swarthmore College have been provided by gifts and bequests from many alumni, foundations, corporations, parents, and friends. In addition to unrestricted gifts for the operating budget, these donors have contributed funds for buildings, equipment, collections of art and literature, and permanently endowed professorships, scholarships, awards, book funds, and lectureships. Their gifts to Swarthmore have not only provided the physical plant but also have created an endowment fund of $\$ \$ 1.635$ billion at market value on June 30, 2013. Swarthmore is ranked among the highest in the country in endowment per student. Income from the endowment during the academic year 2012-2013 contributed approximately $\$ 35,877$ to meet the total expense of educating each student and provided about 43 percent of the College's operating revenues.
The College's ability to continue to offer a high quality of education depends on continuing voluntary support. Swarthmore seeks additional gifts and bequests for its current operations, its permanent endowment, and its capital development programs to maintain and strengthen its resources. The vice president in charge of development will be pleased to provide information about various forms of gifts: bequests, outright gifts of cash or securities, real estate or other property, and deferred gifts through charitable remainder trusts and life-income contracts in which the donor reserves the right to the annual income during his or her lifetime.

### 2.2 Libraries

The library is an active participant in the instructional and research program of the College. The primary function of the library is to support the teaching mission of the College by acquiring and organizing collections in a variety of print, digital, and other formats and by instructing students in the effective use of the library and its collections. Although the library's collections are geared primarily toward undergraduate instruction, the scope, nature, and depth of student and faculty research require a greater quantity of source materials than is typically found in undergraduate libraries. Additional needs are met through interlibrary loan, document delivery, and other cooperative arrangements.
Swarthmore, Haverford, and Bryn Mawr colleges link their library collections through Tripod (their shared, online catalog). Tripod, as well as other network information sources, can be accessed online through the library's home page at
www.swarthmore.edu/library. The Tri-College Library Consortium takes advantage of a long history of cooperation and a unified, online catalog to work toward building a research-quality collection from the combined holdings of these three strong liberal arts colleges.
Reference service is often where research begins. Reference librarians guide patrons in formulating research strategies and in accessing the information and materials contained in the library's vast electronic and print collections. The library provides a considerable digital collection of electronic journals in all disciplines and of citation and full-text research databases that support access to historical, statistical, visual, and bibliographic information. The ever-growing amount of online resources has created a variety of new library services, including Live Help, an online "chat" reference service. The library also provides direct curricular support through extensive print and electronic reserve readings and honors collections. Swarthmore College library holdings amount to approximately 850,000 print volumes with some 12,000 volumes added each year; additionally more than 500,000 e-books are available to patrons. The College participates in the Federal and Pennsylvania Depository Library Program and selects those government documents most appropriate to the needs of the curriculum and the public and catalogs them in Tripod. The library also houses an extensive interdisciplinary audiovisual collection, including 12,600 videos more than 17,000 classical and jazz music recordings, and 1,400 spoken-word recordings of dramatic and poetic literature. The video collection includes classic U.S. and foreign films as well as educational, documentary, and experimental films. The collections are housed in three libraries. The Thomas B. and Jeannette L. McCabe Library is the center of the College library system and is home to the major portion of the collections, extensive public computing resources, a wide variety of reading and study areas, and a video classroom.
The Cornell Library of Science and Engineering in the Science Center houses 66,000 volumes and serves the curricular and research needs of students and faculty in the sciences.
The Underhill Music and Dance Library contains 22,000 books on music and dance as well as the sound recordings mentioned earlier. It provides a wide variety of listening and viewing facilities, which overlook the Crum Woods. Small collections of relevant materials are located in the Black Cultural Center and the Beit Midrash located in the Bond Lodges.

### 2.2.1 Special Library Collections

The College library contains certain special collections: the Private Press Collection, representing the work of more than 750 presses, an exemplary collection of "book arts" and artists'
books; British Americana, accounts of British travelers in the United States; the works of English poets Wordsworth and Thomson bequeathed to the library by Edwin H. Wells; the works of Seamus Heaney, winner of the Nobel Prize for Literature, 1995; the W.H. Auden Collection commemorating the English poet who taught at Swarthmore in the mid-1940s; and the Bathe Collection of the history of technology donated by Greville Bathe.
Within the McCabe Library building are two special libraries that enrich the academic life of the College:
The Friends Historical Library, founded in 1871 by Anson Lapham, is one of the outstanding collections in the United States of manuscripts, books, pamphlets, and pictures relating to the history of the Society of Friends. The library is a depository for records of Friends Meetings belonging to Baltimore, New York, Philadelphia, and other Yearly Meetings. More than 10,000 record books, dating from the 1670s until the present, have been deposited. Additional records are available on microfilm.
The collection includes materials on subjects of Quaker concern such as abolition, Indian rights, utopian reform, and the history of women's rights. Notable among the other holdings are the Whittier Collection (first editions and manuscripts of John Greenleaf Whittier, the Quaker poet), the Mott manuscripts (more than 500 letters of Lucretia Mott, antislavery and women's rights leader), and the Hicks manuscripts (more than 400 letters of Elias Hicks, a prominent Quaker minister). More than 43,000 volumes are in the library's collection of books and pamphlets by and about Friends. More than 200 Quaker periodicals are currently received. The library also has an extensive collection of photographs of meetinghouses and pictures of representative Friends and Quaker activities as well as a number of oil paintings, including The Peaceable Kingdom by Edward Hicks. It is hoped that Friends and others will consider the advantages of giving to this library any books and family papers that may throw light on the history of the Society of Friends. Visit the website www.swarthmore.edu/fhl.xml.
The Swarthmore College Peace Collection is of special interest to research students seeking records of the peace movement. The records of the Women's International League for Peace and Freedom and the personal papers of Jane Addams of Hull-House, Chicago, formed the original nucleus of the Collection (1930). Over the years, other major collections have been added including the papers of Devere Allen, Emily Greene Balch, Danilo Dolci, Belva Lockwood, Homer Jack, A.J. Muste, Scott Nearing, John Nevin Sayre, Wilhelm Sollmann, André and Magda Trocmé, and others as well as the records of the American Peace Society, A Quaker Action Group, Center on Conscience and War, Code Pink, Fellowship of Reconciliation, Friends Committee on National

Legislation, The Great Peace March, Lake Mohonk Conferences on International Arbitration, Military Families Speak Out, National Council for Prevention of War, SANE Inc., United for Peace and Justice, War Resisters League, Women Strike for Peace, and many others. The Peace Collection serves as the official repository for the archives of these organizations. The Peace Collection also houses more than 14,000 books and pamphlets over 3,000 periodical titles, more than 20,000 linear feet of manuscripts, over 50,000 photographs and other images, thousands of audio and video recordings, and memorabilia. Periodicals are currently received from 22 countries. The comprehensive website www.swarthmore.edu/library/peace describes the archival holdings and resources.

### 2.3 Information Technology Services

Information Technology Services (ITS) provides technology resources to support the instructional mission, residential life, and administrative work of the College. Services are available to all students, faculty, staff, and alumni. ITS works in partnership with the Swarthmore community to meet its mission.
Swarthmore provides a rich, robust, and secure technology infrastructure. All campus buildings are served by wired and wireless networks. In addition to network services, a cell phone signal distribution system is installed in the residence halls. Presentation technology is available in every classroom. Swarthmore's information systems provide a wide range of academic and administrative information services to the College community.
Public computers and printing services are available to students in the residence halls, McCabe, Science, and Music Libraries, and in other public spaces on campus. Public computer labs are located in Trotter and McCabe Library, and there are many departmental computer labs across campus that meet the specific needs of academic disciplines. A wide array of commercial and open source software is available for use on all public computers to support academic work.
The Media Center in Beardsley provides access to a rich set of multimedia tools and the newest technologies available for experimentation and creation of audio, video, multimedia, high-quality color and 3-D output for curricular and extracurricular work. Music composition/editing computers are available in the Music Library. Language study and video editing are supported in the Language Resource Center in Kohlberg Hall. Some academic software is available for downloading by the College community. The College Bookstore also sells a variety of software at competitive prices.

The ITS Help Desk located in Beardsley Hall serves students, faculty, and staff who have technology questions or problems and is available by phone on campus at X4357 (HELP), off campus at 610-328-8513, or via email at help@swarthmore.edu. Computer repair services are also available for students (a fee is charged for parts and labor).

### 2.4 Communications

The Communications Office coordinates strategic communications efforts at the College, particularly those relating to admissions, alumni, advancement, Swarthmore's web presence, and media relations. In collaboration with other College offices, the Communications Office leads the development and implementation of an overall web strategy for Swarthmore. The office also leads crisis communications efforts at the College, in close collaboration with a team of partners across campus.
The Communications Office produces a broad range of print and online materials for the College's internal and external communities. A selection includes the quarterly Swarthmore College Bulletin, the annual college calendar, and the Sw@tNews email newsletter. News about Swarthmore newsmakers, campus activities, and special events are available on the College's website (www.swarthmore.edu), which also features a rich variety of videos, podcasts, and faculty experts. The Communications Office also maintains the College's social media presence on Twitter, Facebook, Instagram, YouTube, and iTunes.
The Communications Office maintains a set of standards for print and web publications, including a College design guide, a College style guide, and the appropriate use of the College logo.
Permission from the office is also required for all photo, film, or video shooting on the Swarthmore campus by external vendors or members of the media.
Communications Office staff members provide editorial, photographic, graphic design, printproduction, and web content support services to administrative offices and academic departments across campus, either directly or in working with outside vendors to produce exceptional products.

### 2.5 Physical Facilities

When Swarthmore College opened in fall 1869, it consisted of one building-Parrish Hall-set on farmland and serving 199 students. Today, the College encompasses more than 40 buildings used by approximately 1,550 students on 425 acres.
The College provides an impressive range of modern facilities for students' intellectual growth, cultural enrichment, and physical and social development. At the same time, it maintains an
intimate, pedestrian campus exemplifying the concept of academic study in an idyllic setting.

### 2.5.1 Intellectual Growth

Parrish Hall, the original College building, still
lies at the heart of the campus with classroom buildings clustered around it. Parrish is the administrative and social center of the campus. Admissions, the Registrar's Office, the President's Office, and Dean's Office share space with the Financial Aid Office, Career Services, numerous student groups, and two floors of student residences. The second oldest building on campus, Trotter Hall, was renovated in 1997. Today, Trotter Hall respects the past but embraces modern technology and design, providing the space for the history, political science, and classics departments; the Center for Social and Policy Studies; programs in Latin American studies, peace and conflict studies, interpretation theory, gender and sexuality studies, black studies, and Asian studies; the Writing Center; and several classrooms and seminar rooms. At the center of the building is the Tarble Atrium, with student lounges on each floor. Views from this building overlook the Rose Garden to the south and the Nason Garden and Outdoor Classroom to the north.
Kohlberg Hall, completed in 1996, features spaces for use by the entire College community on the ground floor, including a lounge complete with a coffee bar and fireplace; the Scheuer Room, a popular place for lectures and gatherings; and the Cosby Courtyard, a dramatic outdoor space with stone seating walls around a lawn that doubles as an outdoor classroom. On the upper two floors are modern classrooms and intimate seminar rooms, a language resource center, and faculty offices. Home to the Modern Languages and Literatures, Economics, and Sociology and Anthropology departments, Kohlberg Hall demonstrates that a new building with award-winning architectural design can be integrated into an established campus.
Next door to Kohlberg lies the Lang Performing Arts Center, home to the English Literature and Theater departments and the programs in dance and film and media studies. In addition to two theaters and two dance studios, classrooms and offices are found on the second and third floors.
Hicks, Beardsley, and Pearson halls are clustered together on the north end of the academic campus, forming with Trotter Hall a quadrangle around the Nason Garden. Hicks is home to the Engineering Department and contains laboratories, with several equipped for computer-assisted and controlled experimentation. Beardsley, renovated in 1990, houses the Art Department and Information Technology Services. Pearson, renovated in 1998, is home to the Linguistics, Educational Studies, and Religion departments. Completing the cluster of north campus academic buildings is Papazian

Hall, which houses the Psychology and Philosophy departments.
The Science Center, completed in 2004, physically links the departments of Biology, in Martin Hall, Chemistry and Biochemistry, Computer Science, Mathematics and Statistics, Physics and Astronomy, and the Cornell Science and Engineering Library to foster interaction and exchange among faculty and student scientists.
The center offers the 80 -seat Cunniff Lecture Hall, a 120 -seat auditorium, and the Eldridge Commons area. The project was designed and constructed using criteria developed by the U.S. Green Building Council to produce a sustainable design providing opportunities for education about the environment and environmental responsibility. In 1999, the Martin Greenhouse was renovated to support a broader research program.
Lang Music Building, another award-winning building on campus, is home to the Music and Dance Department and the Underhill Library.
McCabe Library, the intellectual heart of campus, is the College's main library, and houses the national repository of the Society of Friends. The Lang Center for Civic and Social Responsibility, at 3-5 Whittier Place, is an incubator and funding source for student, staff and faculty initiatives related to activism, advocacy, community service, and social entrepreneurship. Sproul Observatory, with its 24-inch visual refracting telescope, was the center of fundamental research in multiple star systems. A 24-inch reflecting telescope on Papazian Hall is used for solar and stellar spectroscopy. In 2009, a 24-inch computerized telescope was installed in the Peter van de Kamp Observatory in the Science Center, providing state-of-the-art observing capabilities.
In the management, design, and construction of all physical facilities, the College recognizes the importance of employing environmentally sound practices and acknowledges its commitment to current and future societies. An example of Swarthmore's commitment to sustainability is the biostream bed, located between McCabe Library and Willets Hall and designed to filter runoff from upper-campus building roofs. More information is available at www.swarthmore.edu/sustainability.
Housed in Trotter Hall, the Center for Social and Policy Studies is an interdisciplinary applied research and policy initiative at the College. Established in 1972, the center undertakes and supports research addressing the complex, dynamic, and compelling needs of inner-city communities, particularly the interplay between poverty and community development in the neighboring community of Chester. In addition, the center supports POLS 70: Politics of Punishment and POLS 106: The Urban Underclass and Urban Policy
For students, the center attempts to tie academic learning to real-world problem solving and
provides a rich hands-on experience in the broad field of social and public policy. Through their research, education, outreach, and advocacy activities, students have an opportunity to put their convictions into practice as they work with residents in the Chester community. The center's faculty director is Associate Professor of Political Science Keith Reeves '88.

### 2.5.2 Cultural Enrichment

The Lang Music Building, opened in 1973, contains a concert hall which seats 425 while providing an expansive view into the Crum Woods. It also is home to the Daniel Underhill Music and Dance Library, classrooms, practice and rehearsal rooms, and an exhibition area. It is the central facility for the Music Department and for musical activities at the College.
Greatly enhancing performance venues, the Eugene M. and Theresa Lang Performing Arts Center (LPAC) opened in 1991. The building contains Pearson-Hall Theatre, with a seating capacity of 825 . The theater can be divided with a 40-ton movable soundproof wall, which is raised and lowered hydraulically. When the wall is raised, the space may be used simultaneously as a cinema seating more than 300 and a theater space of about equal seating capacity. The stage of the theater may also be transformed from its traditional configuration into a thrust stage.
The Frear Ensemble Theatre on the lower level of the LPAC is another, more intimate theater, a "black box" that serves as an experimental and instructional studio as well as the Patricia Wityk Boyer Dance Studio and the Troy Dance Lab. This building also provides an elegant facility for changing art exhibits, student art exhibitions, and a display of holdings of Swarthmore College's permanent art collection in its List Art Gallery.

### 2.5.3 Physical Development

The College maintains about 80 acres of playing fields around the academic heart of the campus to support a wide range of sports, including rugby, field hockey, lacrosse, soccer, softball and baseball. Track sports are supported by both an outdoor track around the Clothier Field and indoor track in the Lamb-Miller Field House, which also provides indoor basketball courts. Next to the field house are Matchbox, our wellness/fitness center and Ware Pool, with a 50 -meter pool. Twelve outdoor tennis courts are supplemented with the Mullan Tennis Center, which houses indoor tennis courts and a fitness pavilion. Ample open lawn areas, an integral part of the Swarthmore College campus, accommodate and inspire a range of informal and spontaneous physical activity from Frisbee throwing to water sliding.

### 2.5.4 Social Development

Residence hall rooms are assigned by a lottery. All students have private telephone and computer hookup capabilities in their rooms. All halls have
common lounges for socializing, and Swarthmore's Sharples Dining Hall provides an impressive dining space, ensuring that students have the opportunity to interact regularly at mealtimes. Small dining rooms within the dining hall are frequently used for special-interest groups such as language discussion groups.
Other student activity and organization space on campus includes the Parlors, a student lounge, and student activities offices in Parrish Hall; Tarble in Clothier, with a snack bar, game room, the College Bookstore, a large all-campus space used for dances and other events and Paces, a student coffeehouse; the Intercultural Center, with both private organization space and a large meeting room for collective events; the Black Cultural Center; Bond Hall, home to the religious advisers and religious organizations; the Kitao Gallery, a student-run art gallery; Olde Club, a party/concert venue; the Women's Resource Center; and two fraternity houses.

### 2.5.5 Scott Arboretum

The College property comprises 425 acres, including a large tract of woodland and the valley of Crum Creek. Much of this tract has been developed as horticultural and botanical collections of trees, shrubs, and herbaceous plants through the provisions of the Scott Arboretum, established in 1929 by Mrs. Arthur Hoyt Scott and Owen and Margaret Moon as a memorial to Arthur Hoyt Scott of the Class of 1895. The plant collections are designed to afford examples of the better kinds of trees and shrubs that are hardy in the climate of eastern Pennsylvania, are suitable for planting by the average gardener, and to beautify the campus. All collections are labeled and recorded. Exceptionally fine displays include hollies, flowering cherries, conifers, crabapples, magnolias, tree peonies, lilacs, rhododendrons, azaleas, hydrangeas, and witch hazels. Specialty gardens include the Terry Shane Teaching Garden, the Theresa Lang Garden of Fragrance, the Dean Bond Rose Garden, the Isabelle Bennett Cosby '28 Courtyard, the Nason Garden, the Metasequoia Allée, the Harry Wood Courtyard Garden, the Pollinators Garden, the Gold Medal Plant Garden, and the West House Garden. Many interested donors have contributed generously to the collections, and the arboretum is funded primarily by restricted endowment funds with a combined market value of $\$ 29.5$ million as of June 30, 2013.
The arboretum offers educational horticulture programs to the general public and Swarthmore students. These workshops, lectures, and classes are designed to cover many facets of the science/art called gardening. Tours are conducted throughout the year for College people and interested public groups. In 2009 the arboretum opened the Wister Education Center and Greenhouse (5,200 square feet) to better fulfill its educational mission. This facility has been
awarded Gold LEED certification (Leadership in Energy and Environmental Design).
Aiding the arboretum staff in all its efforts, are the Associates of the Scott Arboretum. This membership organization provides financial support and assistance in carrying out the myriad operations that make up the arboretum's total program, such as plant propagation, public lectures, workshops, publications, and tours to other gardens. More than 100 volunteer Arboretum Assistants aid in campus maintenance on a regular basis. Student memberships are available and the arboretum provides interesting and educational job opportunities for students. The arboretum's newsletter, Hybrid, publicizes its activities and provides up-to-date information on seasonal gardening topics. Maps for self-guided tours and free brochures of the arboretum plant collections are available at the Scott offices, 610-328-8025, located in the Cunningham House, as well as online.
The arboretum conducts applied research on ornamental plants and it holds three recognized North American Plant Collections: hollies, magnolias, and oaks.
The Scott Arboretum was accredited by the American Association of Museums in 1995 and reaccredited in 2006, signifying its professional standards of operation as a museum of living plants. For more information and a calendar of events, the "Garden Seeds" blog, membership information, and brochures, visit www.scottarboretum.org.

### 2.6 Special Funds and Lectureships

The Catherine G. '72 and Ernest B. Abbott '72 Partners in Ministry Endowment was created in recognition of the importance of a distinctive ecumenical program of spiritual nurture serving the entire Swarthmore College community. Income from the Abbott endowment is distributed to Partners in Ministry to help provide for the compensation of the religious adviser and supporting staff of the Swarthmore Protestant community.
The Mary Albertson Lectureship in Medieval Studies was established in 1987 with gifts from George Cuttino '35 and former students, colleagues, and friends. Mary Albertson joined the Swarthmore faculty in 1927 and served as chair of the History Department from 1942 until her retirement in 1963. She was responsible for expanding the history curriculum to include studies on Russia, the Far and Near East, Africa, and Latin America. Mary specialized in English medieval history. She died in May 1986.
The Jesse and Maria Aweida Endowment for the Support of Arabic Language Instruction was established in 2006 by Jesse and Maria Aweida, members of the Class of 1956.

The Barnard Fund was established in 1964 by two graduates of the College, Mr. and Mrs. Boyd T. Barnard of Rosemont, Pa. The fund has been augmented by the 50 -year class gifts from the classes of 1917 and 1919 and other friends. The income from the fund may be used for any activity that contributes to the advancement of music at the College. It has been used for concerts on the campus, for the purchase of vocal and orchestral scores and other musical literature, and to provide scholarships for students in the Music Department who show unusual promise as instrumentalists or vocalists.
The Peter B. Bart '54 Endowment was established in 2005 to support the Film and Media Studies Program at Swarthmore College.
The Albert H. Beekhuis Music Fund was created in 1989 by a generous bequest of Mr. Beekhuis, neighbor, friend, and patron of Swarthmore music. The fund supports the acquisition and maintenance of musical instruments and brings musical performers to the College.
The Bloom Discretionary Fund Endowment was established by Ira T. Wender '45 in honor of President Alfred H. Bloom. This fund is discretionary under the direction of the president.
The Al and Peggi Bloom Endowment for Financial Aid for International Students and for Faculty Support was established in 2005. This endowment aims to help prepare students to identify and advance common purpose in a global world by providing financial support to international students at Swarthmore, and by supporting relevant faculty efforts in any discipline or across disciplines.
The Alfred H. Bloom Jr. and Martha B. Bloom Memorial Visiting Scholar Fund is the gift of Frank Solomon Jr. '50 in honor of the parents of Alfred H. Bloom. It brings visiting scholars to campus at the discretion of the president.
The Patricia Boyer Music Fund was created in 1989. Income from the Boyer fund supports the Dance Program.
The Richard B. Brandt Fund was established in 1986 by Phillip J. Stone '62 in honor of Richard B. Brandt, a member of the Philosophy Department from 1937 to 1964. The fund supports visiting speakers chosen by the department.
Brest Family General Endowment was established in 2004 by Iris Lang Brest '61, Paul Brest '62, Hilary Brest Meltzer '86, and Jeremy Brest '90 to further the objectives and purposes of Swarthmore College. The income of the Brest Endowment is for unrestricted use.
The Brown Family Travel Fund, established in 2011 by Vera Grant Brown '70 and Frank I. Brown '68, recognizes and honors the special contribution that parents and family members have played in helping their student prepare for college and come to Swarthmore. It provides support for families to travel to landmark events or programs
involving their student that would not be possible otherwise due to cost of transportation and lodging. These might include Commencement exercises, athletic competitions, performing arts productions, academic presentations and the like. The use of the fund is under the direction of the Dean's Office.
The Phillip A. Bruno Fine Arts Endowment was created by Phillip A. Bruno in 1988. The fund supports the acquisition of artwork for the Swarthmore College collections.
The William J. Carter '47 Religious Harmony Fund was established in 2011 by a bequest from William J. Carter '47. The fund's purpose is to encourage and promote understanding, harmony and respect among the various religions of the world.
The Barbara Weiss Cartwright Fund for Social Responsibility was created in 1993 by a gift from Barbara W. Cartwright '37 and Dorwin P. Cartwright '37. The fund supports new or existing programs that encourage involvement in addressing societal problems through projects initiated by the College or created by current students. In addition, it will provide opportunities for faculty and students to participate in volunteer service projects linked to the academic program. Wendy Susan Cheek '83 Memorial Fund for Gender and Sexuality Studies. Established in 1998 by Aimee Lee and William Francis Cheek, the fund supports student and/or programming needs of the Gender and Sexuality Studies Program, including the capstone seminar for honors and course students. The fund shall be spent at the direction of the gender and sexuality studies coordinator.
The Cilento Family General Endowment Fund was established in 2002 by Alexander P. Cilento ' 71 to support the general objectives of the College. The income is unrestricted.
The Cilento Family Information Technology Fund was established in 2002 by Alexander P. Cilento '71 as an expression of gratitude and appreciation for the Engineering Department at Swarthmore College. The fund supports teaching innovations in information science, with preference for computer science, engineering, and related disciplines. The Provost's Office administers the fund.
The Classics Endowment was established in 2005 and, in consultation with the Provost's Office, shall be used to support classics instruction directly.
The Richard W. Conner '49 Partners in Ministry Fund was created in spring 2000 by Richard W. Conner '49 to establish a matching challenge grant program benefiting Partners in Ministry in recognition of the importance of an ecumenical program of spiritual nurture serving the diverse faith traditions of the entire Swarthmore College community.

The George R. Cooley Curatorship was established in 1986. The Cooley endowment supports the curatorship of the Swarthmore College Peace Collection.
The William J. Cooper Foundation provides funding for a varied program of lectures, exhibits, and concerts, which enriches the academic work and cultural experience of the College and the community. The foundation was established by William J. Cooper, a devoted friend of the College whose wife, Emma McIlvain Cooper, served as a member of the Board of Managers from 1882 to 1923. It provides annual funds that are used "in bringing to the College eminent citizens of this and other countries who are leaders in statesmanship, education, the arts, sciences, learned professions and business, in order that the faculty, students and the College community may be broadened by a closer acquaintance with matters of world [interest]."
The Cooper Foundation Committee, composed of students, faculty members, and staff members, works with members of all campus constituencies to arrange lectures, exhibitions, and performances of College-wide interest as well as to bring to the College speakers of note who will remain in residence long enough to enter into the life of the community. In the past, some speakers have been invited with the understanding that their lectures would be published under the auspices of the foundation. This arrangement has produced 18 volumes.
The Bruce Cratsley '66 Memorial Fund was created in 1998 and supports lectures about photography and exhibitions.
The Carley Cunniff '72 Paul Hall Residence Fund was established to honor this member of the Board of Managers who died in January 2005.
The Michael J. Durkan Memorial Fund was established by family and friends of Michael J. Durkan, librarian emeritus, to support library collections and to help bring Irish writers to campus.
The Elizabeth Pollard Fetter Chamber Music Fund, endowed by Frank W. Fetter '20, Robert Fetter '53, Thomas Fetter '56, and Ellen Fetter Gille in memory of Elizabeth Pollard Fetter '25, subsidizes the private instrumental lessons of outstanding student string players at the College. Interested applicants should write to the director of the Fetter Chamber Music program and should plan to audition at the beginning of each semester.
The James A. Field Jr. Lectureship was established by Thomas D. Jones Jr. '53 and Vera Lundy Jones '58 in memory of James Field, professor of history from 1947 to 1984, to support lectures by visiting scholars on the history of the United States.
The James A. Field Jr. Memorial Fund was established by family and friends of James A.

Field Jr., Clothier Professor Emeritus of history, to support library collections.
The Tariq Q. Fischer Endowed Islamic Studies
Fund was created in 2005 by Paul and Asma Fischer, parents of Tariq. Q. Fischer '08, in his memory, to support the development of an Islamic Studies Program.
The Swarthmore College Folk Dance Club Endowment was established in 2010. This fund supports activities of the Swarthmore College Folk Dance Club.
The Lee Frank Memorial Art Fund, endowed by the family and friends of Lee Frank '21, sponsors each year a special event in the Art Department: a visiting lecturer or artist, a scholar or artist in residence, or a special exhibit.
The Gertrude S. Friedman Research Fund was established in 1992 to support travel and research of biology faculty members with preference to those studying in the area of physiology and related subspecialties. Grants are awarded at the discretion of the chair of the Biology Department.
The Garnet Athletics Endowment was created in 2002 by an anonymous donor to support the Athletics Program at Swarthmore College. The fund supports expenses associated with introducing prospective scholar-athletes to Swarthmore College, including travel costs and the production of publications promoting the Athletics Program at the College.
The Mary Josephine Good '70 Endowment was created in her memory by her father, Richard A. Good. The fund was created in 2004 and supports the Partners in Ministry program at Swarthmore College.
The David R. Goodrich '71 Endowment for Islamic Studies was established in 2003 to support the Islamic Studies Program at Swarthmore College. The Provost's Office administers the fund.
The Donald J. Gordon Art Fund was established in 1998 by a gift from his children and their spouses on the occasion of his 70th birthday and the 50th anniversary of his graduation from Swarthmore College. The fund supports visiting artists.
The Harry D. Gotwals Fund was established in 1997 in memory of the distinguished service of Harry D. Gotwals as vice president for development, alumni, and public relations from 1990 to 1997. The fund supports the professional development of members of the division.
The Merritt W. Hallowell '61 Career Services Fund was established in 2002 by Merritt Hallowell to support the College's career services program and initiatives, including but not limited to student career exploration, vocational counseling,
identification of skills, interests, and values to develop an individual's personalized career options; electronic and print resources; alumni networking and mentoring; and extern
opportunities. The Career Services Office administers the fund.
The Halpern Family Foundation Engineering Design Fund was established in 2007 by Michael Halpern '68 and Christine Grant '69. This fund supports work by students on interdisciplinary projects with socially relevant purposes, which include design engineering principles as well as aesthetics and client needs.
The Hayward Family Fund was established by Priscilla Hayward Crago '53 in honor of her parents, Sumner and Elizabeth Hayward, to receive designated life income gifts made by the donor since 1991 and to accommodate additional gifts anticipated over the donor's lifetime and from her estate. The income from the fund provides support for the faculty at Swarthmore College.
The Marjorie Heilman Visiting Artist Fund was established by M. Grant Heilman '41 in memory of Marjorie Heilman to stimulate interest in art, particularly the practice of art, on campus.
The James C. Hormel '55 Endowment for Public Policy and Social Change was established by James Hormel ' 55 to support faculty in the Political Science Department.
The James C. Hormel '55 Endowment for Student Services was established by James Hormel '55 to support staffing and programs related to student services and activities, including student involvement in volunteering and programs to encourage greater understanding of, sensitivity to, and incorporation into the great society of differences in culture, sexual orientation, or race.
The William I. Hull Fund was established in 1958 by Mrs. Hannah Clothier Hull, Class of 1891, in memory of her late husband. Dr. Hull was a professor of history and international law at Swarthmore College for 48 years. The fund enables the College to bring a noted lecturer on peace to the campus each year in memory of Dr. and Mrs. Hull, who were peace activists.
The David Kemp Endowment was created in 2006 by Giles '72 and Barbara Kemp and provides support for David Kemp Hall, which is named for Gil's grandfather.
The Kaori Kitao Cinema History Endowment. Established in 2013 by Kaori Kitao, Professor Emerita in Art History, to celebrate her 80th birthday, supports curricular, scholarly and public events that explore history of cinema, with a preference for silent cinema, such as the annual public screening of silent films from worldwide sources, in recognition of its historical, cultural and cross-cultural importance, but open to other topics and purposes. The fund will be administered by the coordinator of the Film and Media Studies Department in consultation with other relevant departments.
The Kaori Kitao Endowment for Mathematics, established in 2012 by Kaori Kitao, Professor Emerita in Art History, to celebrate her 80th
birthday, supports a visiting lecture or lecture series in the Mathematics and Statistics department colloquium with a preference for topics in geometry, topology, and the history of mathematics, at the discretion of the department. Creation of this fund was motivated by the donor's desire to fulfill her alternate ambition for a career in mathematics which never materialized. The Mathematics and Statistics Department will administer the fund.
The Kaori Kitao Endowment for the List Gallery, established in 2013 by Kaori Kitao, Professor Emerita in Art History, to celebrate her 80th birthday, supports a variety of educational initiatives to be organized and administered by the List Gallery director. Supported initiatives include a student fellowship in curatorial studies, the publication of exhibition catalogs for emerging artists, on-site sculpture and installation projects, and the hiring of technical and administrative assistants as needed in order for the director to pursue such additional programming.
The Kaori Kitao Humanities Research Fellowship Endowment. Kaori Kitao, Professor Emerita in Art History, established this research fellowship in 2013 in celebration of her 80th birthday. The fund supports students in the humanities by providing grants to encourage and facilitate historical research, original scholarship, and professional development, with a preference for Italian Studies, Japanese Studies, and Performing Arts. The fund is administered by the Division of the Humanities and the Provost's Office.
The Kyle House Endowment was created by a gift from Elena '54 and Fred '54 Kyle and is used for the upkeep and expenses of a house on Whittier Place currently used as a residence hall.
The Jonathan R. Lax Fund, created by his bequest in 1996, supports an annual Lax Conference on Entrepreneurship and Economic Anthropology. Jonathan Lax ' 71 was class agent and a reunion leader. His parents, Stephen '41 and Frances Lax, and brothers Stephen (Gerry) Lax Jr. '74 and Andrew Lax '78 have been actively involved at the College.
The Lucinda M. Lewis '70 and Sarah Reynolds '09 Mathematics Endowment was established in 2012 by Robert J. Reynolds. This fund supports visiting scholars to the department of mathematics and student participation in conferences. Recipient(s) will be chosen by the chair of the department of mathematics.
The Genevieve Ching-wen Lee '96 Memorial Fund was established in her memory by family and friends and recognizes the importance of mutual understanding and respect among the growing number of ethnic groups in our society. The fund supports an annual lecture by a prominent scholar of Asian American studies and/or an annual award to two students to assist in projects pertaining to Asian American studies.

The Lucinda M. Lewis '70 and Sarah E. Reynolds '09 Field Hockey Endowment was established in 2009 by Robert Reynolds P'09 in honor of his wife and daughter. Cindy was an avid field hockey player at Swarthmore from 1966-1970, and Sarah from 2006-2009. This fund will be administered by the Athletics Department and supports activities and expenses associated with the field hockey program at Swarthmore College including training trips and trips by field hockey coaching staff to high school field hockey games and tournaments.
The List Gallery Exhibit Fund, established through the generosity of Mrs. Albert List, supports exhibits in the List Gallery of the Eugene M. and Theresa Lang Performing Arts Center.
The Lorax Fund for Environmental Sustainability was established in 2007 by a grant from the Schwab Charitable Fund as recommended by Naomi Zikmund-Fisher '91. The fund is used to support the activities that move Swarthmore College and its community toward a more environmentally sustainable future (e.g. the reduction or offsetting of carbon or other greenhouse gas emissions, innovative replacements of less than efficient technologies, systems, and devices, etc.). The fund is administered by the Office of Facilities and Services.
The Judy Lord Endowment was established in 2004 by anonymous donors who are friends of the College. The endowment memorializes Judy Lord's enthusiasm and community spirit and is a reward for hard work and contributions to Swarthmore College life. Earnings from the Judy Lord endowment are awarded to academic departmental administrative assistants with tenure of 10 or more years at the College.
The Lovelace Family Endowment was established in 2004 to further the objectives and purposes of Swarthmore College. The income is unrestricted.
The Caro Elise Luhrs '56 Business and Leadership Endowment was established by Caro Elise Luhrs
'56 in 2011. This fund better prepares students for assuming leadership positions in whatever liberal arts and science fields they may go into by giving them grounding in basic business skills. Activities supported by this fund will foster strong communication skills, inspire new ways to develop innovative solutions, and encourage entrepreneurship thought and action.
The Julia and Frank L. Lyman '43 Partners in Ministry Endowment was created in February 2000 in recognition of the importance of a distinctive ecumenical program of spiritual nurture serving the entire community of Swarthmore College. Income from this endowment will help provide for the compensation of the religious adviser and supporting staff of the Swarthmore Protestant Community.

The Barbara W. Mather '65 Political Science Honors Endowment was established in 2012 in honor of Barbara W. Mather '65, an exceptional and agile leader who served as chair of the Swarthmore College Board of Managers from 2004-2012. As Barbara was a Political Science major as a student, this fund supports the Honors Program in Political Science, which includes visiting examiners, special lectures, thesis work, and other special projects of Political Science honors majors.
The Isabel Gamble MacCaffrey '46 Library Endowment was established in 2010 by Wallace MacCaffrey in memory of his wife. The fund is used to support the library program.
The Lucy Bunzl Mallan '54 Faculty Leave Endowment was established in 2006 by Lucy Bunzl Mallan to recognize the importance of her Swarthmore College experience and classmates. This endowment will be used by the provost to support faculty leaves.
The Penelope Mason Endowment for Asian Studies was created via the estate of Penelope E. Mason '57. The fund supports courses taught in the departments of art, modern languages, economics, history, music and dance, political science, religion, and sociology/anthropology.
The Chica Maynard '48 Cherry Border Fund was established in 2009 by the Class of '48, friends and family in memory of Carolien "Chica" Powers Maynard '48 to honor her ties and over a century of family ties to Swarthmore College. This fund supports maintenance, upkeep, and enhancements to the Cherry Border of the Scott Arboretum which was started in April 1931 with a gift from Mrs. Allen K. White, Class of 1894, in recognition of her daughter, Carolien White Powers '22 and the "whisper bench" which serves as a memorial to Carolien Powers '22. Uses for the income of this fund will be determined by the Scott Arboretum.
The Thomas B. McCabe Memorial Fund was established with gifts from alumni and the McCabe Family to support an annual lectureship that brings to campus each fall individuals with distinguished careers in fields such as public service, business, government, education, or medicine.
The James H. Miller '58 Partners in Ministry Endowment was created in recognition of the importance of a distinctive ecumenical program of spiritual nurture serving the entire Swarthmore College community. Income from the Miller endowment is distributed to Partners in Ministry to help provide for the compensation of the religious adviser and supporting staff of the Swarthmore Protestant community.
The Margaret W. and John M. Moore Endowment was created in September 1999 via a life-income gift contract. Income provides research stipends for selected scholars using the resources of the

Friends Historical Library and/or the Peace Collection at Swarthmore College.
The Paul Moses and Barbara Lubash Computer Science Fund was created to provide support for computer science students traveling to seminars and related events.
The Helen F. North Fund in Classics, established in 1996 by Susan Willis Ruff '60 and Charles F.C. Ruff '60 to honor the distinguished career of Helen F. North and her enduring impact on generations of Swarthmore students, is awarded to support the program of the Classics Department. At the discretion of the department, it shall be used to fund annually the Helen F. North Distinguished Lectureship in Classics and, as income permits, for a conference or symposium with visiting scholars; summer study of Greek or Latin or research in classics-related areas by students majoring in the field; or study in Greece or Italy in classics by a graduate of the department.
The Project Pericles Fund of Swarthmore College was created in 2005 to support ambitious, social change-oriented projects of groups of Swarthmore students. Eugene M. Lang '38 and the Board of Managers of the College contributed to the endowment, which is administered by the Lang Center for Civic and Social Responsibility.
The Theodore and Elizabeth Pierson Friend Fund for Islamic Studies was created in 2005 and is used to support the Islamic Studies Program at Swarthmore College.
The Promise Fund, established anonymously by an alumnus on the occasion of his graduation, is administered by The Cooper Foundation Committee. Income from the Promise Fund brings guest speakers, artists, and performers in music, film, dance, and theater who show promise of distinguished achievement.
The Mary Herndon Ravdin '50 Endowment for Partners in Ministry was established in memory of Mary Herndon Ravdin in 2008 by her husband, William D. Ravdin '50. This fund supports the Partners in Ministry program at Swarthmore College.
The Lucinda M. Lewis '70 and Sarah Reynolds '09 Mathematics Endowment was established in 2012 by Robert J. Reynolds. This fund supports visiting scholars to the department of mathematics and student participation in conferences. Recipient(s) will be chosen by the chair of the department of mathematics.
The Edgar and Herta Rosenblatt Fund was created in 1967 and supports the work of the faculty at Swarthmore College.
The Ruach Endowment was created in 2000 to support Hillel activities on campus.
The Richard L. Rubin Scholar Mentoring Fund was established by Richard Rubin, a professor of political science and public policy at the College,
in 2003. This fund supports the mentoring program, which the Dean's Office administers.
The Bernie Saffran Lecture Endowment was established in 2007 by students, colleagues, and friends as a tribute to this beloved and esteemed member of the College faculty. This fund is administered by the Economics Department and supports expenses associated with bringing exceptional speakers to campus.
The Sager Fund of Swarthmore College was established in 1988 by alumnus Richard Sager '73, a leader in San Diego's gay community. To combat homophobia and related discrimination, the fund sponsors events that focus on concerns of the lesbian, bisexual, and gay communities and promotes curricular innovation in the field of lesbian and gay studies. The fund also sponsors an annual three-day symposium. The fund is administered by a committee of women and men from the student body, alumni, staff, faculty, and administration. In 2004, Richard Sager created an "internship" to provide funding for students in internships with nonprofit organizations whose primary missions address
gay/lesbian/bisexual/transgender issues. The Lang
Center for Civic and Social Responsibility administers the internship.
The Scheuer-Pierson Fund, established in 1978 by Walter and Marge Scheuer '48, supports the Economics Department.
The Schmelz Family Endowment was established in 2012 by John and Diane Schmelz. This fund supports the athletics program at Swarthmore College and activities and expenses associated with the women's basketball program, including training trips, winter break trips, and other program enhancing projects.
The Science Center Endowment Fund was established in 2003 with a gift from Peter Weinberger of the Class of 1964. Income from this endowment will be used to support the operations and maintenance of the Science Center.
The Science Center Support Endowment was established by numerous donors to support the operation of the renovated Science Center and related academic programs.
Harold E. and Ruth Caldwell Snyder Premedical Endowment Fund was established in 1988 by Harold Cincy Snyder '29 in appreciation for the education he and his beloved wife, Ruth Caldwell Snyder '31, received at Swarthmore College. The fund was fully endowed through a bequest in 1992 and supports a visiting lecturer in the medical profession with a preference for practitioners who treat each patient as a whole person.
The Gil and Mary Roelofs Stott Concert Fund was established in 1997 on the 25th anniversary of the Lang Music Building. The fund was created as an expression of deep affection for the Stotts by Eugene M. Lang, Class of 1938, to recognize their special artistic talents and all that they have meant

## 2 Educational Resources

to the Swarthmore community. Each year, a new musical composition will be commissioned by the College to be performed at an annual Gil and Mary Roelofs Stott Concert at which the Gil and Mary Roelofs Stott Resident Student Artist will perform.
The Mary and Gilmore Stott Honors Philosophy Seminar Endowment was created in 1998 by William G. Stott '75 and by Christopher Niemczewski '74. The fund supports a seminar offered by the Philosophy Department. It was established in honor of the parents of William G. Stott '75.
The Swarthmore Chapter of Sigma Xi Lecture Series brings eminent scientists to the campus under its auspices throughout the year. Local members present colloquia on their own research. The Thatcher Fund provides individualized assistance to students with disabilities. The purpose of the fund is to enable such students to take full advantage of the academic and extracurricular life of the College and to make Swarthmore a desirable choice for prospective students with disabilities. The fund was established in 1997.
The Phoebe Anna Thorne Memorial Endowment was created by a Thorne family member in 1911. The endowment supports the faculty of Swarthmore College.
The Pat Trinder Endowment was established by alumni and friends of Patricia E. Trinder, a member of the career planning and placement office staff, to honor her many years of dedication and support to students. The endowment supports programs to advance career planning and placement at Swarthmore College. It specifically supports alumni participation in the recruiting, placement, and mentoring efforts for students.
The P. Linwood Urban Jr. Partners in Ministry Endowment was created in recognition of the importance of a distinctive ecumenical program of spiritual nurture serving the entire Swarthmore College community. Income from the Urban endowment is distributed to Partners in Ministry to help provide for the compensation of the religious adviser and supporting staff of the Swarthmore Protestant community.
The Benjamin West Lecture, made possible by gifts from members of the Class of 1905 and other friends of the College, is given annually on some phase of art. It is the outgrowth of the Benjamin West Society, which built up a collection of paintings, drawings, and prints, which are exhibited, as space permits, in the buildings on campus. The lecture was named for the American artist who was born in a house that stands on the campus and became president of the Royal Academy.
The Dan and Sidney West House Endowment was established in 2006 by Giles and Barbara Kemp to honor Vice President Dan C. West and his wife, Sidney Childs West. The income from this
endowment will be used to support the maintenance, upkeep, and program expenses of the campus residence and the gardens of the vice president for development, alumni, and public relations, which also serves as guest quarters and an entertainment venue for campus visitors.
The Wister Memorial Endowment was established in 2000 by John C. and Gertrude Wister to support the Scott Arboretum.
Kenneth R. Wynn '74 Fund for Interdisciplinary Programs was created in 1998 to support interdisciplinary, language-based programs that embrace a more global view of language learning than traditional sources.
The Neil '80 and Beth Yelsey Endowment was established in 2004 to further the objectives and purposes of Swarthmore College. The income is unrestricted
The Young Family Endowment was established in 2003 by James and Jacqueline Young, parents of Scott Young '06. The fund supports the Swarthmore College radio station, WSRN.

## 3 Admissions

Inquiries concerning admission and applications should be addressed to the Vice President and Dean of Admissions, Swarthmore College, 500
College Avenue, Swarthmore PA 19081-1390 or admissions@swarthmore.edu. Office telephone: 610-328-8300 or 800-667-3110.

### 3.1 General Statement

In the selection of students, the College seeks those qualities of character, social responsibility, and intellectual capacity that it is primarily concerned to develop. It seeks them not in isolation but as essential elements of the whole personality of candidates for admission.
Selection is important and difficult. No simple formula will be effective. The task is to choose those who give promise of distinction in the quality of their personal lives, in service to the community, or in leadership in their chosen fields. Swarthmore College must choose its students on the basis of their academic achievement and commitment to intellectual inquiry as well as their individual future worth to society and of their collective contribution to the College.
It is the College's policy to have the student body represent not only different parts of the United States but also many foreign countries; public, independent, and religiously affiliated schools; and various economic, social, religious, ethnic, and racial backgrounds. The College is also concerned to include in each class the sons and daughters of alumni and members of the Society of Friends.
Admission to the first-year class is normally based on the satisfactory completion of a 4-year secondary school program. Under some circumstances, students who have virtually completed the normal 4-year program in 3 years will be considered for admission, provided they meet the competition of other candidates in general maturity as well as readiness for a rigorous academic program. Home-schooled students should make every effort to complete the application with information that is appropriate to their experience. It is useful to note that Swarthmore is looking for the same information about a candidate as is required from a student with more traditional secondary schooling. Students who have already completed a college degree, or higher, are not eligible for admission to Swarthmore College.
All applicants are selected on the following evidence:

1. Record in secondary school.
2. Recommendations from the school principal, headmaster, or guidance counselor, and from two academic teachers.
3. Standardized testing results for any one of the three following testing scenarios: The SAT and any two SAT Subject Tests, the ACT with writing; the SAT and the ACT (with or without writing).
4. Applicants considering a major in engineering are strongly encouraged to take the SAT Math level 2 subject test.
5. A brief statement about why the student is applying to Swarthmore, a brief essay on a meaningful activity or interest, and a longer essay (subject specified).
6. Cocurricular and extracurricular activities.

Applicants must have satisfactory standing in school and standardized tests as well as strong intellectual interests. The College is also interested in strength of character, promise of growth, initiative, seriousness of purpose, distinction in personal and extracurricular interests, and a sense of social responsibility. The College values the diversity that varied interests and backgrounds can bring to the community.

### 3.2 Preparation

Swarthmore does not require a set plan of secondary school courses as preparation for its program. The election of specific subjects is left to the student and school advisers. In general, preparation should include the following:

1. Accurate and effective use of the English language in reading, writing, and speaking.
2. Comprehension and application of the principles of mathematics.
3. The strongest possible command of one or two foreign languages. The College encourages students to study at least one language for 4 years, if possible.
4. Substantial coursework in history and social studies; literature, art, and music; and mathematics and the sciences. Variations of choice and emphasis are acceptable, although some work in each of the three groups is recommended. Those planning to major in engineering should present work in chemistry, physics, and 4 years of mathematics, including algebra, geometry, trigonometry, and calculus.

### 3.3 Application Process

Application to the College may be submitted through either the Regular Decision or one of the Early Decision plans. Applicants follow the same procedures, submit the same supporting materials, and are evaluated by the same criteria under each plan.
The Regular Decision plan is designed for those candidates who wish to keep open several different options for their undergraduate education throughout the admissions process. Applications under this plan will be accepted at any time up to the Jan. 1 deadline, but the application should be submitted as early as possible to create a file for the candidate to which supporting material will be added up to the deadline.

## 3 Admissions

The Early Decision plans are designed for candidates who have thoroughly and thoughtfully investigated Swarthmore and other colleges and found Swarthmore to be an unequivocal first choice. On applying to Swarthmore College, Early Decision candidates may not file an early decision application at other colleges, but they may file early action/regular applications at other colleges with the understanding that these applications will be withdrawn upon admission to Swarthmore.
Any Early Decision candidate not admitted will receive one of two determinations: a deferral of decision, which secures reconsideration for the candidate among the Regular Decision candidates, or a denial of admission, which withdraws the application from further consideration. If one of these determinations is made, the applicant is free to apply to other institutions.
Application under any plan must be accompanied by a nonrefundable application fee of $\$ 60$ or fee waiver (which must be approved by the secondary school counselor). Timetables for the plans are the following:

## Fall Early Decision

Application deadline Nov. 15
Notification of candidate by Dec. 15

## Winter Early Decision

Application deadline Jan. 1
Notification of candidate by Feb. 15

## Regular Decision

Application deadline Jan. 1
Notification of candidate by April 1
Candidate reply date May 1
Under certain circumstances, admitted students may apply in writing to defer their admission for one year. These requests must be received by May 1 and approved in writing by the dean of admissions, and students must confirm their plans for the year by June 1. The dean of admissions may choose to review other requests on a case-bycase basis. Students granted deferment may neither apply to nor enroll at another degree-granting college/university program.
Swarthmore College places strong emphasis on academic achievement and personal character. An offer of admission to Swarthmore College is dependent on a student maintaining his or her standard of academic achievement before enrolling at the College. An offer of admission is also dependent on a student's continued demonstration of character and high standards for personal conduct. Lapses in either category may be grounds for rescinding an offer of admission.
For U.S. citizens and permanent residents applying as first-year or transfer students, admission to Swarthmore is determined without regard to financial need. See information concerning financial aid.

### 3.4 Interview

An admissions interview with a representative of the College is a recommended part of the first-year application process. Prospective first-year applicants should take the initiative in arranging for this interview. On-campus interviews are available to rising seniors from June through early December. Students are encouraged to complete the interview before submitting an application to the College. Those who can reach Swarthmore with no more than a half-day's trip are urged to make an appointment to visit the College for this purpose. Other students may contact the Admissions Office in the fall of their senior year to request a meeting with an alumni representative in their own area. The deadline to request an alumni interview is Dec. 1. Applicants for transfer may interview with an alumni representative. Transfer interviews are completely optional and may be requested in the winter and must be completed by the transfer deadline of April 1.
Arrangements for on-campus or alumni interviews can be made by writing to the Admissions Office or by calling 610-328-8300 or 800-667-3110. Requests for interviews may also be made through the admissions website.

### 3.5 Advanced Placement

Enrolled first-year students with special credentials may be eligible during the first semester for advanced placement (placement into courses with prerequisites) and/or credit toward graduation from Swarthmore (32 credits are required), however, credit is normally only available for high-scoring work in certain Advanced Placement (AP) examinations of the College Entrance Examination Board, certain higher-level examinations of the International Baccalaureate, or certain other foreign certifications (such as British A-Levels or the German Abitur). Sometimes placement or possibly credit might be awarded for courses taken at another college. Every effort is made to place students at the appropriate level, but no department is required to give placement or credit for special credentials. All placement or credit decisions are made on a subject-by-subject basis by the individual Swarthmore departments. Credit for examination credentials is available only for examinations taken before matriculation at Swarthmore. Credit is denied or revoked if a student chooses to take a course at Swarthmore that the Swarthmore department says essentially repeats the work covered by the credit.
Departmental AP-credit policies are posted on the registrar's website under "Policies."
Departments may set additional requirements. For instance, students may be required to take a placement examination at Swarthmore to validate their previous work.

## 3 Admissions

Swarthmore normally does not grant degree credit for college work done prior to starting school at Swarthmore (including the summer before Swarthmore) but advanced placement into courses with prerequisites may be possible. Students who wish to have courses taken at another college considered for either advanced placement or credit must be prepared to provide as needed an official transcript from the institution attended as well as written work (papers, examinations); syllabi; and reading lists for the coursework to be evaluated by the department concerned. Transcripts are evaluated by the registrar; grades must be straight C or better for credit, but departments make the placement or credit decisions. Any such requests for placement or credit must be made within the first year at Swarthmore.
In some cases, students may qualify for advanced standing and may become juniors in their second year. To qualify for advanced standing, a student must do satisfactory work in the first semester, obtain 14 credits by the end of the first year, intend to complete the degree requirements in 3 years, and signify this intention when she or he applies for a major during the spring of the first year.

### 3.6 International Admissions

The College is deeply committed to a strong international presence on campus. The application process is the same as for U.S. citizens and permanent residents of the United States with the following exceptions:

1. While financial aid awards are loan free, admission is not need-blind. Students must submit additional financial documentation to the Financial Aid Office. Applying for financial aid places the student in the most selective subgroup of the total application pool regardless of the parental contribution.
2. Demonstrated proficiency in English is required of those for whom English is not their first language. This may be in the form of a standardized test for non-native speakers of English, such as TOEFL or IELTS, or superior academic achievement in a school where English is the language of instruction. Although not required, an interview on campus or with a College admissions representative overseas is considered to be very helpful.
3. Required standardized tests (SAT, ACT, and SAT subject tests) are waived for those who live in countries where such testing is unavailable. In countries where testing is available, applicants are strongly advised to make test arrangements early and to have scores reported directly to Swarthmore College by the appropriate application deadline.
4. It is the applicant's responsibility to guarantee the authenticity of all submitted credentials. This includes notarized translations of official documents and certified school transcripts signed by the appropriate school staff member.
5. The College does not accept transfer applications from foreign nationals who require financial aid.

### 3.7 Applications for Transfer

The College welcomes well-qualified transfer applicants. Applicants for transfer must have had an outstanding academic record in the institution attended and must present transcripts for both college and secondary school work, including an official statement indicating that the student is leaving the institution attended in good standing. Students who have completed the equivalent of two or more semesters of university-level work must apply for transfer admission. Admission status for students who have completed less than the equivalent of two semesters of university-level work will be decided on a case-by-case basis. Results of the SAT and ACT are optional for transfer applicants.
Four semesters of study at Swarthmore College constitute the minimum requirement for a degree, two of which must be those of the senior year. Applications for transfer must be filed by April 1 of the year in which entrance is desired. Swarthmore does not have a midyear transfer application process. Need-based financial assistance is available for transfer students who are U.S. citizens or permanent residents. Transfer applications are not accepted from international students who require financial aid.
Transfer applicants are notified of decisions by mid to late May. Students who have already completed a bachelor's degree, or higher, are not eligible for transfer admission to Swarthmore College.

## 4 Expenses

### 4.1 Student Charges

Total charges for the 2014-2015 academic year (two semesters) are as follows:

| Tuition | $\$ 45,700$ |
| :--- | ---: |
| Room | $\$ 6,950$ |
| Board | $\$ 6,600$ |
| Student activities fee | $\$ 360$ |
|  | $\$ 59,610$ |

These are the annual charges billed by the College. Students and their parents, however, should plan for expenditures associated with books, travel, and other personal items. In addition, the College will bill for unpaid library fines, Worth Health Center fees, and other fees and fines not collected at the source.

Students engaged in independent projects away from the College for which regular academic credit is anticipated are expected to register in advance in the usual way and pay normal tuition. If the student is away from the College for a full semester, no charge for room and board will be made. However, if a student is away for only a part of a semester, the preceding charges may be made on a pro rata basis.

Students who have not satisfied their financial obligations will not be permitted to return to campus, attend any classes, live in campus housing, have a meal plan, register via add/drop (or any other method) for any classes, enroll for the following semester, participate in the room lottery, obtain a transcript, or be permitted to be graduated. Late fees of 1.5 percent per month will accrue on all past-due balances.
The regular College tuition covers the normal program of four courses per term as well as variations of as many as five courses or as few
as three courses. Students who elect to carry more than five courses incur a unit charge for the additional course ( $\$ 5,712$ ) or half-course $(\$ 2,856)$, although they may within the regular tuition vary their programs to average as many as five courses in the two semesters of any academic year. College policy does not permit programs of fewer than three courses for degree candidates in their first eight semesters of enrollment. After the first eight semesters of enrollment, students are eligible to pay the unit charge for each course.

### 4.1.1 Study Abroad

Students who wish to receive Swarthmore credit for study abroad must, for the semester or year abroad, pay the full Swarthmore charges (excluding the student activities fee). Financial aid is normally applicable to study abroad, with the approval of the Off-Campus Study Office. Students contemplating study abroad should begin working with the Off-Campus Study Office well in advance for academic and administrative planning.

### 4.2 Payment Policy

Semester bills are sent in July and December. Payment for the first semester is due by July 28, 2014 and for the second semester by January 5, 2015. A 1.5 percent late fee will be assessed monthly on payments received after the due date. Many parents have indicated a preference to pay College charges on a monthly basis rather than in two installments. For this reason, Swarthmore offers a monthly payment plan, which provides for payment in installments without interest charges. Information on the plan is mailed to all parents in April.

### 4.3 Withdrawal Policy

Charges for tuition and fees will be reduced for students who withdraw for reasons approved by the dean before or during a semester. Reductions in charges will be made in the following ways:

| For Students Who Withdraw | Tuition and Fees Reduced | Board Reduced | Room Reduced |
| :--- | :--- | :--- | :--- |
| Before start of classes | To $\$ 0$ | To $\$ 0$ | To $\$ 500$ |
| During first 2 weeks of classes | To $\$ 200$ | To $\$ 100$ | To $\$ 500$ |
| During week 3 | By 90 percent | By 90 percent | To $\$ 500$ |
| During week 4 | By 80 percent | By 80 percent | To $\$ 500$ |
| During week 5 | By 70 percent | By 70 percent | To $\$ 500$ |
| During week 6 | By 60 percent | By 60 percent | To $\$ 500$ |
| During week 7 | By 50 percent | By 50 percent | To $\$ 500$ |
| During week 8 | By 40 percent | By 40 percent | To $\$ 500$ |
| During week 9 and beyond | No further reduction on tuition, fees, board, or rooms |  |  |

## 4 Expenses

### 4.3.1 Withdrawal From Study Abroad

If a student elects to withdraw from an OffCampus Study abroad program, or is required by the College to withdraw from the program, either before the program begins, or after the program is underway, the student also assumes financial responsibility for the expenses that the College has either paid out or obligated on behalf of the student. Unrecoverable expenses may include, but are not limited to the payment of tuition, room and board, and travel allowances. The student must repay any unrecoverable expenses and any travel and/or meal and/or lodgings allowance that have been advanced, before he or she will be permitted to re-enroll at the College, receive an official transcript, or be graduated from the College. Financial aid will not be available for this purpose of covering these costs. Once the obligated and unrecoverable amounts have been met by the student, College charges will be reduced in a manner consistent with the charge reduction/withdrawal policy for tuition, room, and board set forth in section 4.3.

### 4.4 Housing Fines

Any time a student selects a room in the lottery that they do not use, the minimum fine is $\$ 100$. Other fines follow:

### 4.4.1 Fall Semester

If a student selects a room in the lottery and

1. Chooses to live off campus and is still enrolled, they will be assessed:
a. A $\$ 500$ penalty unless everyone in the space notifies the Residential Life Office by June 1 that they will not be occupying the room. If everyone does notify the office, the fine will be $\$ 100$ each.
b. A $\$ 500$ penalty for each person moving
off campus when notice is given between June
1 and the 8th week of classes.
c. No room refund when notice is given after the 8th week.
2. Takes a leave of absence and notifies the Dean's Office, they will be assessed:
a. A $\$ 100$ penalty if notice is given by Aug. 1.
b. A $\$ 500$ penalty if notice is given between Aug. 1 and the 8th week of classes.
c. No room refund after the 8th week.

### 4.4.2 Spring Semester

If a student selects a room in the December
lottery or already has a room from fall semester and

1. Chooses to live off campus and is still enrolled, they will be assessed:
a. A $\$ 250$ penalty unless everyone in the unit leaves this space and notifies the Residential Life Office by Dec. 1.
b. A $\$ 500$ penalty each if notice is given between Dec. 1 and the 8th week of classes.
c. No room refund if notice is received after the 8th week.
2. Takes a leave of absence and notifies the Dean's Office, they will be assessed:
a. No penalty if notice is given by Dec. 1 .
b. A $\$ 100$ penalty if notice is given between Dec. 1 and Jan. 5.
c. A $\$ 500$ penalty if notice is given between Jan. 5 and the 8th week of classes.
d. No room refund after the 8th week.

### 4.5 Inquiries

All correspondence regarding payment of student charges should be addressed to Linda Weindel, student accounts manager, or phone 610-328-8396.

## 5 Financial Aid

To make a Swarthmore education available to qualified students, the College designated in excess of \$31 million for Swarthmore scholarships for the coming year. About $52 \%$ of our student body receives scholarship assistance through Swarthmore on the basis of their families' financial situations. To meet the needs of our students, the average aid award for 2013-2014 was $\$ 39,982$. A total of 70 percent of our students will share more than $\$ 40$ million in scholarships, loans, and campus job opportunities during the 2014-2015 academic year.
Although admission and financial aid decisions are made separately, they are made at the same time.
A prospective student should apply for
Swarthmore aid and outside assistance when applying for admission to Swarthmore Instructions for completing a financial aid application can be found at
www.swarthmore.edu/financialaid. Financial assistance will be offered if a family does not have the capacity to meet college costs without our help. The amount a family is expected to contribute is determined by weighing the family's income and assets against such demands as taxes, living expenses, medical expenses, siblings’ undergraduate tuition expenses, and so forth. Family contributions also include a $\$ 2,000$ to \$2,500 summer earnings contribution from students, as well as a portion of the student's assets.
For 2014-2015, the College charges, which include tuition, room, board, and a student activity fee, will be \$59,610. This activity fee covers admission to all social, cultural, and athletic events on campus. The total budget figure against which aid is computed is $\$ 62,050$. This allows for an estimated $\$ 1,230$ for books and supplies and $\$ 1,210$ for personal expenses. A transportation allowance is added to the budget for those who live in the United States but more than 100 miles from the College. It is this larger total that we use when determining a student's need for our help.
Although our financial aid awards are loan-free, students and parents remain welcome to borrow to help pay the family's share of Swarthmore expenses (see section 5.2).
In keeping with our policy of basing financial aid on demonstrated need, the College reviews each student's family financial situation annually. Students who would like to be considered for our support for the next year must submit a new financial aid application each spring. A student's aid is not withdrawn unless financial need is no longer demonstrated. Assistance is available only during a normal-length undergraduate program (eight semesters) and only if a student enrolls fulltime each semester, earns four credits each semester, and makes satisfactory academic progress. These factors also apply in our consideration of a sibling's undergraduate educational expenses. Students who choose to live
off campus will not receive Swarthmore Scholarship or Supplemental Educational Opportunity Grants in excess of their college bills. However, the cost of living off campus will be recognized in the calculation of a student's financial need, and other outside sources of aid may be used to help meet off-campus living expenses once the college bill is satisfied.
Although eligibility for federal aid funds is limited to those who are able to complete and to submit the Statement of Registration Compliance, additional funds have been made available for those who are unable to accept need-based federal aid because they have not registered with the U.S. Selective Service.
U.S. citizens and permanent residents who have not previously received financial aid may become eligible and may apply to receive aid if their financial situations have changed. A student who marries may continue to apply for aid, though parents are still expected to contribute to the student's education.
Financial support for foreign national students is limited and must be requested during the admission application process. New aid applications from foreign nationals cannot be considered after admission.
Answers to most financial aid questions are available at www.swarthmore.edu/financialaid.

### 5.1 Scholarships

For the academic year 2014-2015, the College will award more than $\$ 31$ million in Swarthmore Scholarship funds. About one-half of that sum will be provided through the generosity of alumni and friends by special gifts and the scholarships listed in section 5.4. Students do not apply for a specific College scholarship. Rather, the College decides who is to receive restricted endowed scholarships or support from general scholarship funds. Although the qualifying criteria for awarding mos endowed scholarships remain general, some donors have established explicit guidelines that closely mirror the interests of the individual for whom the scholarship is named. Financial need, however, is a requirement for all College scholarships except the regional McCabe Scholarship. Federal Pell Grants and federal Supplemental Educational Opportunity Grants are also available to eligible students.

### 5.2 Loan Funds

Although our aid awards are loan-free, students may choose to borrow instead of working or to help ease the family's burden. First-year students may borrow up to $\$ 5,500$; sophomores may borrow $\$ 6,500$, and juniors and seniors may borrow up to \$7,500.
The federal Direct Stafford Loan is a long-term, low-interest educational loan. Eligibility for a

## 5 Financial Aid

federal Direct Stafford Loan is determined by the College, using federal guidelines. Family income, family size, asset strength, and number of children in college, etc., form the basis for the determination of your federal eligibility.
Parents who wish to borrow might consider the federal Direct PLUS Loan. Up to \$59,610 per year and repayment may be made over a 10 -year period.
For more information about these loan programs or other financing options, go to our website at www.swarthmore.edu/financialaid.

### 5.3 Student Employment

Student employment on the Swarthmore campus is coordinated by the Student Employment Office, which is under student direction. Campus jobs are available in such areas as our libraries, Information Technology Services, the student-run coffeehouse, most academic and administrative offices, and many other places on campus. Our students manage, give tours, tutor, write, coordinate, and provide support throughout the campus. Students apply for campus positions when they arrive in the fall. On-campus hourly rates of pay run from $\$ 8.95$ to $\$ 9.60$. Students receiving financial aid are usually offered the opportunity to earn up to $\$ 1,920$ during the academic year, and are given hiring priority, but there are many jobs available for non-aided students who wish to work on campus. Students are encouraged to keep a moderate work schedule-no more than about 7 or 8 hours weekly-so that academic performance is not compromised. About 1,200 of our 1,550 students choose to work.
The Student Employment Office also publicizes local off-campus and temporary employment opportunities in the student DASH on-line.
For those who wish to work off campus and who qualify for the federal Work-Study Program, offcampus positions in public or private nonprofit agencies may be arranged through our Financial Aid Office-if funding is sufficient.

### 5.4 Scholarship Funds

All students who demonstrate financial need are offered scholarship aid, some of which is drawn from the following named funds. However, students should not worry if they do not fit the specific restrictions listed because their scholarships will instead be drawn from other sources not listed here. By completing the aid application process, a student will be considered for the following funds. No separate application is needed.
(Financial need is a requirement for all scholarships except the McCabe Scholarships. No separate application is needed.)
The Catherine G. '72 and Ernest B. '72 Abbott Scholarship, established in 1999 by Catherine and

Ernest Abbott, is awarded to a first-year student who shows great promise. This renewable scholarship is for a man or woman who demonstrates financial need and academic excellence.
The Karim Abdel-Motaal '90 Egypt Scholarship was established in 2012. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable. Preference will be given first to students from Egypt, secondarily to Arab or Arab American students and thence to international students or students from the United States. For each of the preceding preferences, additional preference will be given to women candidates.
The Frank and Alice Adelberg Scholarship was established by Stephen M. Harnik '75 in 2010 in his capacity as executor of their charitable estate. The Adelbergs were Holocaust survivors who believed deeply in Jewish causes which promoted peaceful international discourse and who dedicated their benefactions to such endeavors. The scholarship is awarded to students on the basis of academic merit and financial need and is renewable. Preference will be given to students who have an interest in human rights, conflict resolution, and the promotion of peace and understanding.
The Lisa P. Albert '81 Scholarship, established in 1983 by Lisa Albert and her mother, Stella Saltonstall, is awarded to a young man or woman on the basis of scholarship and financial need, with preference given to a student with a demonstrated interest in the humanities.
The George I. Alden Scholarship, established in 1989 as a memorial by the Alden Trust with matching funds from several individual donors, is awarded on the basis of academic merit and financial need with preference given to a student from New England studying in the sciences or engineering.
The Vivian B. Allen Foundation, established in 1969, provides scholarship aid to enable foreign students to attend Swarthmore College as part of the foundation's interest in the international exchange of students.
The Susan W. Almy '68 Scholarship was established by this alumna in 2003. The fund supports financial aid for needy students at Swarthmore College, with preference given to students interested in international careers, especially in developing nations.
The Alumni Council Scholarship, established in 2000 by the Alumni Council of Swarthmore College, is awarded based on academic merit and financial need and is renewable.
The Alumni Scholarship is awarded to students on the basis of financial need. Established in 1991, it is funded through alumni gifts and bequests to encourage donors who cannot fund a fully endowed named scholarship.

## 5 Financial Aid

The John R. '53 and Joyce B. '55 Ambruster Scholarship was created in 2001. The scholarship is awarded on the basis of academic merit and financial need.
The Anadarko Endowed Scholarship was established by Mike Nelson '81 and Michelle Murray in 2012. This renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to students who come from the states of Oklahoma, New Mexico, Nebraska, Kansas or Arkansas.
The Janice R. Anderson '42 Scholarship, established in 2006, is awarded on the basis of academic merit and financial need.
The Smitha Arekapudi '99 Scholarship was established in 2006 by Drs. Bapu and Vijayalakshmi Arekapudi. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to a premed student, with a background in the humanities and social sciences, who plans to become a doctor and care for patients. Preference is also given to students who show commitment to socially responsible citizenship, with demonstrated qualities of exceptional character, intellectual curiosity, and leadership.
The Evenor Armington Scholarship, created in 1980 in recognition of the long-standing and affectionate connection between the Armington family and Swarthmore College, is given each year to a worthy student with financial need. The Paul '62 and Catherine '60 Armington Endowed Scholarship was established in 2005. The scholarship is awarded on the basis of academic merit and financial need and is renewable. Preference will be given to students who have plans to or are currently studying in Africa.
The Barclay G. Atkinson Scholarship and Rebecca M. Atkinson Scholarship were established in 1892 by Rebecca M. Atkinson and are now part of the general scholarship fund.
The Frank and Marie Aydelotte Scholarship, established in 1946 by family, friends, and alumni, is awarded to a new student who shows promise of distinguished intellectual attainment based on sound character and personality. The award is made in honor of Frank Aydelotte, president of the College from 1921 to 1940 and originator of the Honors Program at Swarthmore, and Marie Osgood Aydelotte, his wife.
The David Baltimore '60 Scholarship was established by an anonymous donor in 2000. This renewable scholarship is awarded with preference given to a junior or senior majoring in biology or chemistry.
The Norman Barasch Scholarship was established in 2006 by Richard Barasch '75 in honor of his father. This renewable scholarship is awarded on the basis of academic merit and financial need.

The Philip and Roslyn Barbash, M.D., Scholarship was endowed in 1990 as a memorial by their daughter and son-in-law, Babette B. Weksler, M.D., '58 and Marc E. Weksler, M.D., '58. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to women with an interest in the sciences and, in particular, in the environment.
The Charles F. Barber Scholarship was established in 2009 by Charles F. Barber, a member of the Board of Managers from 1967 to 1974, in memory of his wife of 62 years, Lois LaCroix Barber. Lois and Charles raised four children, including Robin Barber ' 74 . The scholarship is awarded to students on the basis of academic merit and financial need and is renewable.
The W. Herman Barcus '27 Scholarship, established in his memory in 1982 by his widow, Kate, and his employer, Sun Oil, is awarded to a student with financial need.
The Philip H. Barley '66 Memorial Scholarship was established in 1968 in memory of Philip H. Barley by his family and friends and the Class of 1966, which he served as president. The scholarship provides financial assistance for a junior or senior who has demonstrated outstanding leadership qualities at Swarthmore.
The Franklin E. Barr Jr. '48 Scholarship was established in 1984 by Betty Barr to honor her husband's memory and is awarded to a first-year student who has broad academic and extracurricular interests and shows promise of developing these abilities for the betterment of society. This scholarship, based on financial need, is renewable for three years.
The Robert A. Barr, Jr. '56 Scholarship was established by a group of alumni in 2011 in honor of Robert A. Barr, Jr., who served Swarthmore College as Dean of Men from 1962-1970, and as Dean of Admissions from 1977-1994. This scholarship was created to honor Dean Barr for his contributions to the lives of Swarthmore students; as an unfailingly supportive adviser to so many he admitted to the College, and as a role model who taught us how to treat and respect one another. This renewable scholarship will be awarded to a first year student with strong academic credentials who also shows promise of making substantial contributions to the co-curricular life of the campus. When appropriate, preference will be given to sons and daughters of Swarthmore alumni.
The Peter B. Bart '54 Scholarship, established in 2005, is awarded to deserving students.
The Connie L. Baxter Scholarship was established by Eugene M. Lang '38 in 2010 in honor of Connie L. Baxter, in recognition of her extraordinary dedication as a member of the Swarthmore College staff. The scholarship shall be awarded to students on the basis of academic merit

## 5 Financial Aid

and financial need and is renewable. Preference will be given to students who transfer to Swarthmore from a community college, or to students with an interest in classics or theater.
The H. Albert Beekhuis Scholarship in engineering is awarded on the basis of academic merit and financial need to a first-year student and is renewable through the senior year as long as that student retains a major in engineering. This scholarship was endowed in 1989 through the generous bequest of Dr. Beekhuis, neighbor, friend, and successful chemical engineer.
The Patty Y. and A.J. Bekavac Scholarship. Established in 1997 by their daughter, Nancy Y. Bekavac '69, the scholarship is awarded on the basis of financial need, with preference given to students from western Pennsylvania.
The Margaret Fraser Bell '53 Scholarship, created in 2000 in her memory by her husband, Monroe Bell, is awarded each year to a junior on the basis of academic merit and financial need, with preference given to a student majoring in Russian.
The Sherry F. Bellamy '74 Scholarship was established in 2003 by Sherry Bellamy. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Belville Scholarship was established in 1882 by Catharine Reading Belville, Class of 1919. Honoring Robert Chambers Belville and Margaret Klein Belville, the scholarship is awarded annually to an incoming student of particular promise.
The Brand and Frances Blanshard Scholarship, established in 1987 by a former student to honor the memory of this philosophy professor and his wife, is given to a deserving student with high academic promise.
The Al and Peggi Bloom Endowment for Advancing Swarthmore's Global Reach was established in 2005. This endowment supports international student financial aid and supports faculty effort in any discipline or across disciplines that enhances the global reach of the college curriculum.
The Blough and Locksley Family Scholarship, established in 2003 by Stephen Blough '79 and Sally Locksley '79, is awarded on the basis of academic merit and financial need. The scholarship is renewable.
The Jeanne Cotten Blum '40 Scholarship, established in 2003 by Jeanne Cotten Blum, is awarded on the basis of academic merit and financial need. The scholarship is renewable. The Frank '36 and Benita Blumenthal Scholarship was established in 2006 by Frank Blumenthal. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Curtis Bok Scholarship was established in 1964, the College's centennial year, in honor of the late Philadelphia attorney, author, and jurist, who was a Quaker and honorary alumnus of

Swarthmore. The renewable scholarship is assigned annually to a junior or senior whose qualities of mind and character indicate a potential for humanitarian service such as Curtis Bok himself rendered and would have wished to develop in young people. Students in any field of study, and from any part of this country or from abroad, are eligible.
The Winifred Cammack Bond '43 Scholarship was established by Winifred Cammack Bond and her husband, George Cline Bond '42, to be awarded to a first-year student who is the first member of his or her family to attend college, with a high school record showing strong academic, athletic, and leadership abilities.
The Book and Key Scholarship was established in 1965 by members of Book and Key, a men's secret honorary society, when the society was dissolved. The scholarship is awarded to a member of the senior class.
The Anne C. Booth '32 Endowed Scholarship was established in 2006 by this alumna who wanted students to be able to share the special educational experience she enjoyed, regardless of financial need. Although Anne died in 2006, her memory lives on through this scholarship.
The Frank R. Borchert Jr. '58 and Thomas K.
Glennan Jr. '57 Scholarship was established in 2002 by T. Keith '82 and Kathryn P. '82 Glennan in honor and memory of their uncle and father who, from their days as fraternity brothers at Swarthmore, became lifelong friends and brothers-in-law. They shared a common commitment to educational excellence, and each devoted his professional life to this cause. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Edward S. Bower '42 Memorial Scholarship, established in 1958 by Mr. and Mrs. Ward T. Bower in memory of their son, is awarded annually to a student who ranks high in scholarship, character, and personality.
The George '38 and Josephine Clarke '41 Braden Scholarship was established in 1999 by their children in honor of George and in memory of Josephine. The renewable scholarship is awarded to a student with demonstrated need for financial assistance, with preference for a child of immigrant parents or guardians.
The William A. Bradford Jr. '66 Scholarship was established in 2000 by William Bradford. The renewable scholarship provides financial assistance to a student who shows great promise and is based on academic merit and financial need.
The Carol Paxson Brainerd '26 Scholarship, established in 2001, is awarded on the basis of financial need and academic merit.
The Susan Goldman Brandes '76 Memorial Scholarship was established in 2008 by her husband, Lee Brandes. The renewable scholarship is awarded to students on the basis of academic

## 5 Financial Aid

merit and financial need. Preference is given to students majoring in chemistry.
The Daniel Walter Brenner '74 Memorial Scholarship, established in 1979 by family and friends in memory of Daniel W. Brenner, is awarded to a senior majoring in biology who is distinguished for scholarship and has an interest in plant ecology, wildlife preservation, or animal behavior research. The recipient is chosen with the approval of the biology faculty.
The Leon Willard Briggs '17 Scholarship, established in 1979 with a bequest from Ina Carey Diller in honor of her husband, is awarded to a worthy student with financial need.
The John S. Brod '34 Scholarship, established in 1984 with gifts from this chemistry major and his employer, Procter \& Gamble, is awarded to a deserving student on the basis of academic merit and financial need.
The John G. Brokaw Scholarship was established in 2005 by Lawrence Jean Richardson '78 and Jacqueline Brokaw Richardson '80. It is awarded on the basis of academic merit and financial need.
The Robert C. Brooks Scholarship was established in 1964 by several of his former students as a memorial to Professor Brooks, who taught political science at Swarthmore from 1912 to 1941. The scholarship is awarded to students on the basis of academic merit and financial need.
The Edna Pownall Buffington, Class of 1898, Scholarship was established by a bequest from Albert Buffington, Class of 1896, during 1964, the College's centennial year. This scholarship honors a graduate and a longtime resident of Swarthmore and is awarded on the basis of financial need.
The Bushnell Family Scholarship was established in 2005 by the Bushnell family: father Douglas, daughter Rebecca Bushnell '74, and brothers Michael and David, in honor of wife and mother, Peggy Meeker '45. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Malcolm Campbell '44 Unitarian
Scholarship, established by Malcolm Campbell on the occasion of his 50th reunion, is awarded to a student who is an active Unitarian Universalist with financial need and a strong academic record. The scholarship is renewable.
The Centennial Scholarship, established in 1964 with gifts from many donors to the Centennial Campaign, is awarded on the basis of financial need.
The Richard N. Chambers '48 Scholarship was established by the bequest of Clyde Chambers, father of Richard, in 2012 in memory of Richard N. Chambers '48. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.
The Chang/Hawley '58 Scholarship, established in 2003, is named for Rosalind Chang Whitehead and

John K. Hawley. Their son, Charles Loy Hawley 85 , is also an alumnus. The scholarship is awarded on the basis of financial need and academic merit.
The Chi Omega Scholarship, established by the sorority and the Swarthmore Chapter of Gamma Alpha, provides an award to a student annually on the basis of academic merit and financial need.
The Elinor Jones Clapp '46 Scholarship was established in 2003. The renewable scholarship is awarded on the basis of academic merit and financial need with preference given to students who are U.S. citizens residing abroad.
The William '17 and Eleanor Stabler '18 Clarke Scholarships, established in 1985 in their honor by W. Marshall '47 and Cornelia Clarke '46 Schmidt, are awarded to two worthy first-year students with financial need. Preference for these renewable scholarships is accorded to members of the Society of Friends.
The Class of 1913 Scholarship, established on the occasion of the class's 50th reunion, is awarded to a student who has demonstrated financial need.
The Class of 1914 Scholarship, established in honor of the class's 50th reunion, is awarded to a student who has demonstrated financial need.
The Class of 1915 Scholarship, established in 1940, is awarded to a student with financial need.
The Class of 1917 Scholarship is awarded to a student who has demonstrated financial need.
The Class of 1925 Scholarship, created on the occasion of the class's 50th reunion, is awarded on the basis of academic merit and financial need.
The Class of 1930 Scholarship was endowed on the occasion of the class's 60th reunion. The renewable scholarship is awarded alternately to a woman or a man on the basis of sound character and academic achievement, with preference given to those who exercise leadership in athletics and community service.
The Class of 1932 Scholarship was established on the occasion of the class's 70th reunion. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Class of 1938 Harriet and William Carroll Scholarship was established on the occasion of the class's 65th reunion by their classmates and members of their family in honor of the Carrolls' long-standing service to the College. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Class of 1939 Scholarship was established at the 50th reunion of the class in fond memory of Frank Aydelotte, president of the College from 1921 to 1940, and his wife, Marie Aydelotte. The renewable scholarship is awarded to a worthy student with financial need.
The Class of 1941 Scholarship was created in celebration of the 50th reunion of the class. The

## 5 Financial Aid

renewable scholarship is awarded on the basis of academic merit and financial need.
The Class of 1943 Scholarship, established to honor the 50th reunion of that class, is awarded to a student in the sophomore class on the basis of sound character and academic achievement, with preference given to those participating in athletics and community service. The scholarship is renewable through the senior year.
The Class of 1946 Scholarship was established on the occasion of the class's 50th reunion in recognition of the Swarthmore tradition that so influenced its members.
The Class of 1949 Scholarship was established in 1999 in celebration of the class's 50th reunion. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Class of 1950 Scholarship, established on the occasion of the class's 50th reunion, is awarded to one or more deserving students. It is renewable.
The Class of 1952 Evans H. Burn Memorial Scholarship, established on the occasion of the class's 50th reunion in memory of the class's longtime president, is awarded on the basis of academic merit and financial need. It is renewable.
The Class of 1954 Scholarship, established on the occasion of the class's 50th reunion, is awarded on the basis of academic merit and financial need. It is renewable.
The Class of 1956 Scholarship, established on the occasion of the class's 25 th reunion, is awarded on the basis of academic merit and financial need.
The Class of 1957 Gilmore Stott Memorial Scholarship, established on the occasion of the class's 50th reunion, is in memory of Dean Gilmore Stott, who died in 2005. A beloved College professor and dean for 55 years who played the viola in the College orchestra, taught ethics, and counseled thousands of students; he was widely admired for his intelligence, judicial manner, modesty, gentleness, and consideration of others. This renewable scholarship is awarded, on the basis of academic merit and financial need, to a student who shares some of Dean Stott's wonderful characteristics.
The Class of 1960 Scholarship was created in honor of the 50th reunion of the class. This renewable scholarship shall be awarded to students on the basis of academic merit and financial need.
The Class of 1963 Scholarship, awarded on the basis of academic merit and financial need, is renewable through the senior year. The scholarship was created in honor of the class's 25th reunion.
The Class of 1964 Scholarship, established in honor of their 50th reunion, is renewable and awarded to students on the basis of academic merit and financial need.
The Class of 1969 Scholarship was established at the 25th reunion of the class in honor of the contributions made by Courtney Smith, president
of Swarthmore College from 1953 to 1969. The scholarship was given with bittersweet memories of the campus turmoil of the 1960s and with confidence in the power of open discussion and reconciliation. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Cochran Memorial Scholarship, established in 1979 in memory of the Cochran family by the estate of Marie A. Cochran, is awarded annually to a student who has demonstrated financial need.
The David L. '77 and Rhonda R. '76 Cohen Scholarship, established in 2004, is awarded on the basis of academic merit and financial need.
The Sarah A. Cole '34 Scholarship, founded in 1953 by her parents to celebrate her life and memory, is awarded to deserving students on the basis of academic merit.
The Charles A. Collins, Class of 1912, Scholarship, established in 1974, is awarded every year to a deserving student in need of financial assistance, in accordance with the donor's will. Charles Collins, a New Jersey farmer, was active in local Quaker affairs and served as a trustee of the Philadelphia Yearly Meeting.
The N. Harvey Collisson '22 Scholarship, established in 1965 by his family and the Olin Mathieson Charitable Trust in memory of N. Harvey Collisson, is awarded to a first-year student. Selection places emphasis on character, personality, and ability.
The Gehan Talwatte '87 and Keara Connolly '87 Endowed Scholarship was established in 2011. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable. Preference will be given first to students from Sri Lanka, secondarily to other international students, and thence to students from the United States.

The Marcia Perry Ruddick Cook '27 Scholarship is awarded to a junior on the basis of merit and need, with preference given to an English
literature major. The renewable scholarship was endowed in 1987 by J. Perry Ruddick in memory of his mother.
The Edward Hanes Cooley '43 Endowed Scholarship, established in 2005, is awarded on the basis of academic merit and financial need, with a preference for a student majoring in engineering.
The Helen Ridgway Cooley, Class of 1907, Endowed Scholarship, established in 2005, is awarded on the basis of academic merit and financial need, with a preference for a female student majoring in music.
The Stephanie Cooley '70 Scholarship was established in loving memory by her parents in 1984 and is awarded on the basis of financial need, with preference for a student from Greece or a student with an interest in the study of classics.

## 5 Financial Aid

The David S. Cowden '42 Scholarship was established in 1977 by David Cowden, who taught English literature at Swarthmore from 1949 until his death in 1983. The scholarship is awarded on the basis of financial need.
The Mark W. Crandall '80 International Scholarship was established in 2004. The renewable scholarship is awarded on the basis of academic merit and financial need, with a preference for international students.
The John '41 and Barbara Crowley Endowed Scholarship was established in 2006 by the Crowleys as a symbol of their long-standing affection for and commitment to the College. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Crum Meadow Scholarship was created by an anonymous donor in 2001. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Ellsworth F. Curtin '16 Memorial Scholarship was established in 1982 by Margaretta Cope Curtin '18 in memory of her husband, with preference for engineering majors.
The Marion L. Dannenberg Scholarship, established in 1978, is awarded to a first-year student with financial need who ranks high in personality, character, and scholarship. This endowment is in memory of Mrs. Dannenberg, who was the mother, grandmother, and greatgrandmother of seven students who attended Swarthmore.

The Anna Janney DeArmond '32 Scholarship was established by bequest from her estate in 2008. The renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to a female upper-class student interested in a teaching career at the high school or college level, majoring or expressing an interest in literature in the English language or the history of countries in which the language of literature is ordinarily English.
The Edith Thatcher '50 and C. Russell '47 de Burlo Scholarship is awarded to Swarthmore College students who are United States citizens whose legal residence is in Maine, Vermont, Rhode Island, or Massachusetts and who intend to major either in engineering or the humanities. The renewable scholarship, established in 1986 as the gift of Edith and Russell de Burlo, is awarded on the basis of financial need and academic merit.
The Kenneth William Defontes Jr., Class of 1972, Scholarship was established in 2006 to support a deserving student who expresses interest in pursuing a major in engineering or the physical sciences. This renewable scholarship is awarded on the basis of academic merit and financial need and may be given to a first-year student.
The Delta Gamma Scholarship, created by the sorority, is awarded to a student who has demonstrated academic merit and financial need.

The William Diebold, Class of 1906, William Diebold Jr., Class of 1937, and John T. Diebold, Class of 1949, Endowed Scholarship was established in 2004 by John T. Diebold in honor of the Diebold family. The scholarship is awarded on the basis of academic merit and financial need, with a preference for students studying and performing research in Europe.
The Edward L. Dobbins '39 Memorial Scholarship was established by Hope J. Dobbins in 1997 in memory of her husband. The Dobbins scholarship is awarded to a worthy student who demonstrates a commitment to the betterment of society through involvement in community or environmental activism. Preference for the renewable scholarship is given to residents of Berkshire County, Mass.
The Patrick A. Dolan Scholarship was established by Patrick D. Dolan '83 in 2004. The renewable scholarship is awarded on the basis of academic merit and financial need to a first-year student who shows great promise.
The Francis W. D’Olier, Class of 1907,
Scholarship, created in 1964 in memory of Francis W. D'Olier, is awarded to a first-year student. Selection for the renewable scholarship focuses on character, personality, and ability.
The William Dorsey Scholarship was established in 1906 through the estate of Elizabeth Dorsey, a member of the Board of Managers from 1868 to 1870, in memory of her father, who served on the Board of Managers from 1862 to 1865 and from 1867 to 1874. The scholarship is awarded on the basis of financial need.
The Agnes B. Doty Memorial Scholarship was established in 2000 by her daughter, Christine M. Doty '70. The renewable scholarship is awarded each year, with a preference given to students majoring in Asian studies.
The Marcel Dubien Endowed Scholarship was established in 2007 by Jacques Joussot-Dubien '49 to honor his father. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to students from Europe who are not U.S. citizens.
The Faith '51 and Ross '50 Eckler Scholarship was established in 2002 by A. Ross and Faith Woodward Eckler. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to a man or woman with a commitment to community service.
The Marjorie Vandeusen '38 and J. Earle '36
Edwards Scholarship was established by an anonymous donor in 2000. The renewable scholarship is awarded with preference given to a junior or senior who has demonstrated a commitment to socially responsible citizenship, with a special interest in peace and conflict studies.
The Maurice G. Eldridge '61 Scholarship was created by an anonymous donor in recognition of outstanding administrators at Swarthmore College.

## 5 Financial Aid

The Eldridge Scholarship was established in 1999 to honor Maurice G. Eldridge, vice president of college and community relations and executive assistant to the president. The renewable scholarship is awarded to a student with merit and need who has demonstrated a commitment to socially responsible citizenship, with a preference for a student from the Washington, D.C., public school system, especially from either the Banneker Academic High School, Duke Ellington School of the Arts, or the Bell Multicultural School.
The George Ellsler, Class of 1890, Scholarship, created in 1943 by a bequest from Mary Ellsler, is awarded to a student who has demonstrated financial need.
The Robert K. Enders Scholarship, established by his friends and former students to honor Dr. Robert K. Enders, a member of the College faculty from 1932 to 1970, is awarded annually to a worthy student with an interest in the study of biological problems in a natural environment.
The J. Horace Ervien, Class of 1903, Scholarship, created in 1979 with gifts from J. Horace Ervien and his wife, is awarded to students demonstrating academic merit and financial need.
The European Alumni Scholarship was established in 2006 by gifts from Antoinette Graefin zu Eltz '01, Jacques Joussot-Dubien '49, and other European alumni. This scholarship is awarded on the basis of academic merit and financial need.
Preference is for students from Europe who are not U.S. citizens.

The Howard S., Class of 1903, and Gertrude P. Evans Scholarship provides scholarships for worthy students with financial need. Howard Evans majored in engineering at Swarthmore and was a native of the village of Swarthmore.
The Philip Evans Scholarship was established in 1986 by Jerome Kohlberg ' 46 in memory of his longtime friend and classmate, Dr. Phillip Evans
'48. Dr. Evans was a highly admired physician, faithfully serving patients from all walks of life. Evans Scholars are expected to develop themselves as critical thinkers, compassionate citizens, and engaged participants in local and world affairs. They are awarded to students who in their high school years have demonstrated leadership, integrity, intelligence and a commitment to the larger community. The Scholarships are awarded to members of the first year class, are renewable annually, and provide summer opportunity grants that are awarded on the recommendation of the dean of students.
The Michael S. Fedak '82 Scholarship was established in 2003. The renewable scholarship is awarded on the basis of academic merit and financial need with preference given to students from New Jersey majoring in economics or mathematics.
The Samuel and Gretchen Vogel '56 Feldman Scholarship was established in 1992 by Gretchen

Vogel Feldman and her husband, Samuel. The renewable scholarship, awarded on the basis of financial need, is given to a student interested in pursuing a teaching career. Preference is given to residents of Martha’s Vineyard.
The Samuel M. and Gretchen Vogel '56 Feldman Scholarship II was established in 2000. The renewable scholarship, awarded on the basis of financial need, is given to a student interested in pursuing a teaching career after graduating from Swarthmore College. Preference is given to residents of Martha's Vineyard.
The Martin Fleisher '80 and Mark Risk '78 Scholarship, established in 2005, is awarded on the basis of academic merit and financial need.
The Eleanor Flexner '30 Scholarship, established in 1989, is awarded to a deserving student on the basis of academic merit and financial need, with preference given to a student majoring in English literature.
The Margaret Mccain Ford '43 Scholarship was established in 2006 in her memory by her husband, Thomas Ford, and their children. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Norma Patz Fox '82 and Clifford Fox Scholarship was established in 2006 by Clifford and Norma Patz Fox. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Caroline W. Frame Scholarship was established in 1885 by a bequest from her grandfather, Samuel Willets. The funds, now part of the general scholarship fund, are awarded on the basis of academic merit and financial need.
The David W. Fraser Scholarship. This endowed scholarship was established in 1991 by the Board of Managers and friends of David Fraser in honor of his service as president of Swarthmore College from 1982 to 1991. This scholarship is awarded to one student enrolled in an approved program of academic study outside the boundaries of the United States. Preference is given to students studying in Asian, Middle Eastern, and African countries.
The Marianne Durand Frey '57 Scholarship, established by Marianne Durand Frey in 2002, reflects the donor's gratitude for scholarship aid received during her attendance at Swarthmore. This renewable scholarship is awarded based on academic merit and financial need to a woman who has attended a public high school.
The Theodore and Elizabeth Friend Scholarship was established in 1981 and was announced during the closing ceremony for The Program for Swarthmore as an expression of respect and appreciation by board members and others who have been associated with them in the service of Swarthmore College. The scholarship honors this former president of Swarthmore, who served from

## 5 Financial Aid

1973 to 1982, and his wife. It is awarded each year on the basis of financial need to a worthy student.
The Theodore Friend and Elizabeth Pierson Friend Scholarship was established by him in 2005 and is awarded on the basis of academic merit and financial need, with a preference for a student from an Islamic country or a student engaged in Islamic Studies.
The Toge and Mitsu Fujihira Scholarship was created in 2000 by their son, Donald Fujihira '69. The renewable scholarship is awarded to a man or woman who shows great promise and assumes both financial need and academic excellence. Preference is given to students of Asian descent.
The John and Gail Gaustad Scholarship was established by friends and students of the Gaustads to honor their many years of service to the College. In 1984, John Gaustad, the Edward Hicks Magill Professor of Astronomy, and his wife, Gail, started the practice of welcoming international students into their home during periods when the dorms were closed. Over the years, they were hosts to about 120 students with many becoming close and lasting friends. This renewable scholarship, expressing appreciation for the Gaustads' generosity and dedication, is awarded annually to a promising student who demonstrates financial need and academic excellence.
The Martha Salzmann Gay '79 Scholarship was created in 2000 by Martha S. Gay. The renewable scholarship assumes both academic excellence and financial need and is awarded to a first-year student who shows great promise.
The David Gelber '63 and Kyoko Inouye Scholarship, established in 2004, is awarded on the basis of academic merit and financial need, with a first preference for students from New York or New Jersey majoring in history and a second preference for humanities majors
The Jeffrey L. Gertler '74 Memorial Scholarship was established in 2005 by an anonymous donor. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Joseph E. Gillingham Scholarship was established by a bequest from prominent Philadelphia merchant Joseph E. Gillingham, who died in 1907. The scholarship is awarded to a deserving student on the basis of academic merit and financial need.
The Allis Dale and John E. '59 Gillmor and Jordan and Sarah Gillmor '92 Hymowitz Scholarship was established in 2008 by this family on the occasion of John's 50th reunion. The scholarship is awarded on the basis of academic merit and financial need to a first-year student who shows great promise.
The Joyce Mertz Gilmore '51 Scholarship, awarded to an entering first-year student, is renewable. The recipient is chosen on the basis of mental vigor, concern for human welfare, and the potential to contribute to the College and the
community outside. The award was established in 1976 by Harold Mertz '26 in memory of his daughter, Joyce Mertz Gilmore.
The Barbara Entenberg Gimbel '39 Scholarship was endowed in 1980 in memory of Barbara Entenberg Gimbel by her husband, Dr. Nicholas S. Gimbel. The scholarship is awarded on the basis of need to a worthy student, with preference for a black candidate.
The Chloe and Raoul Glant Scholarship was established in 2005 by their family to honor their zeal for lifelong learning and passion for greater understanding of the issues facing today's world. The scholarship is awarded based on need and academic achievement, with a preference for a foreign or American student who demonstrates intellectual and personal integrity and a strong commitment to the public good.
The Barbara Nugent Glouchevitch Scholarship was established in 2004 by Michel Glouchevitch '77 in memory of his mother, a 1948 Bryn Mawr graduate. Barbara had close ties to Swarthmore and lived her abbreviated life enthusiastically pursuing career, family, intellectual, and sports activities. This scholarship is awarded on the basis of merit and need to students showing distinction in academics, leadership, and extracurricular activities.

The Marcia and John D. Goldman '71 Scholarship was created in 1992 and is awarded on the basis of need to a student with a strong academic record and leadership qualities. Preference is given to students from northern California.

The Berda Goldsmith Scholarship, established in 1991 in memory of Mrs. Goldsmith, is a needbased scholarship awarded annually to a music major, beginning in his or her junior year. Mrs. Goldsmith was a music lover and patroness of the Settlement Music School. Preference will be given to a student who has attended the Settlement Music School and shows an interest and proficiency in playing the piano.
The Kermit Gordon '38 Scholarship was created by an anonymous donor in 2000. This renewable scholarship is awarded on the basis of need, merit, and an interest in public policy.
The Cynthia Norris Graae '62 and Stephen L. Bloom '62 Scholarship recognizes two dedicated alumni, both members of the Class of 1962. It was created by an anonymous donor in 2007 in recognition of Cynthia Norris Graae, an alumna whose service to the College included serving on Alumni Council and the Board of Managers, and expanded in 2011 in recognition of her late husband Stephen L. Bloom, an alumnus who was a gifted clarinetist who was a member of both the orchestra and the wind ensemble while a student at Swarthmore. The renewable scholarship is awarded on the basis of financial need, with preference given to a student who plays a musical instrument.

## 5 Financial Aid

The Neil R. Grabois '57 Scholarship was created by an anonymous donor in 2001. The scholarship is awarded on the basis of academic merit and financial need, with preference for students from urban public high schools who wish to study engineering or science.
The Sarah Maurer Graham '77 Scholarship was established in 2003 by Sarah's husband, Robert B. Graham, after her passing to honor her curiosity, achievements, and passion for Swarthmore. The renewable scholarship is awarded on the basis of academic merit and financial need with preference given to students interested in classical studies.
The Edward F. Green '40 Scholarship, established in 1999 by a bequest from this alumnus, is awarded on the basis of academic merit and financial need.
The Walter W. Green Scholarship and the White Open Scholarships Mr. and Mrs. Daniel S. White, Class of 1875, on the occasion of the class's 50th reunion, established three scholarships in the names of Howard White Jr., Serena B. White, and Walter W. Green. They are awarded annually on the basis of financial need and are tenable for four consecutive years.
The James E. Gregory '85 Scholarship, established in 2005, is awarded on the basis of academic merit and financial need. Preference is for music majors or students who study or perform music.
The Mary Lippincott Griscom, Class of 1901, Scholarship was established in 1969 by Mary Griscom and her daughter, Mary Griscom Colegrove '42, to provide financial aid on the basis of academic merit and financial need. The scholarship honors Mary L. Griscom, who served on the Board of Managers from 1916 to 1967.
The Robert G. Grossman '53 and Ellin Grossman Endowed Scholarship, created in 2005, is awarded on the basis of academic merit and financial need, with a preference for biology or history majors.
The Pauline and Joseph Guss Endowed Scholarship was established in 2003 by Giles '72 and Barbara Guss Kemp. The scholarship is awarded on the basis of financial need and academic merit, with preference for students from Nebraska or, as a second consideration, students from the Midwest.
The Lucinda Buchanan Thomas '34 and Joseph H. '37 Hafkenschiel Scholarship was established as a memorial to Lucinda Thomas in 1989 by her husband and sons, Joseph III '68; B.A. Thomas '69; Mark C. '72; and John Proctor '75. Lucinda's father, B.A. Thomas, M.D., graduated with the Class of 1899. This scholarship is awarded to a junior and is renewable, based on need. Preference is given to students who have demonstrated proficiency in water sports or have shown talent in studio arts and who have been outstanding in service to the College.

The Mason Haire '37 Scholarship was established in 1986 by his wife, Vivian, in honor of this alumnus, a distinguished psychologist and former member of the Swarthmore College faculty. The renewable scholarship is awarded to a first-year student with financial need who is distinguished for intellectual promise and leadership.
The Nicole Alfandre Halbreiner '82 Scholarship, established in 2005, is awarded on the basis of academic merit and financial need.
The Margaret Johnson Hall '41 Scholarship for the Performing Arts was established in 1991 by Margaret Johnson Hall. The scholarship provides financial assistance based on academic merit and financial need, with preference for students intending to pursue a career in music or dance.
The Merritt W. Hallowell '61 Scholarships were established in 2005 by a bequest from Merritt Hallowell, a loyal and generous alumnus with a sincere interest in helping students. These renewable scholarships are awarded on the basis of academic merit and financial need.
The Helene and Mark '71 Hankin Scholarship was established in 2002 by the Hankins in memory of Mark Hankin's father, Perch P. Hankin. The renewable scholarship is awarded on the basis of academic merit and financial need.

The John W. '60 and Ann E. Harbeson Scholarship, established by the Harbesons in 2004, is awarded on the basis of academic merit and financial need to a first-year student, renewable through the senior year. Preference is given to a deserving international student, reflecting the donors' active involvement, careers, and interests. The Edith Ogden Harrison Memorial Scholarship was created in 2004 by her daughter, Armason Harrison '35. The renewable scholarship is awarded to a first-year student, with a preference for children of members of the Religious Society of Friends or to Native American students.
The Hartnett Engineering Scholarship was established in 2009 by Thomas ' 94 and Rachel Hartnett. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference for an engineering student who shows great promise.
The William Randolph Hearst Scholarship for Minority Students, established in 1988 by the Hearst Foundation Inc., provides financial assistance to minority students with financial need.
The Bernard B. and Phyllis N. Helfand Scholarship was established by their daughter, Margaret Helfand '69, in 2003 to honor their encouragement of nontraditional educational pathways. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to students interested in both art and science and a commitment to improving their communities through their work.

## 5 Financial Aid

The J. Philip Herrmann Scholarship was established in 1983 by Katharine F. Herrmann '14 and Margaret Herrmann Ball '24 in honor of their father. The renewable scholarship is awarded to a deserving student on the basis of academic merit and financial need.

The E. Dyson and Carol Hogeland '38 Herting Scholarship was created in 1999 by Eugene M.
Lang '38. The renewable scholarship is awarded with preference given to a junior or senior woman majoring in political science who plans to attend law school.
The A. Price Heusner '32 Scholarship, established in 1976 by his wife, Helen, is awarded to a student on the basis of academic merit and financial need.
The Rachel W. Hillborn Scholarship was established in 1945 by Anne Hillborn Philips, Class of 1892, in memory of her mother, Rachel W. Hillborn, who served on the Board of Managers from 1887 to 1913. The scholarship is awarded to a junior or senior, with preference for a student who is a member of the Religious Society of Friends or who is involved in international service.
The Stephen B. Hitchner Jr. '67 Scholarship was established in 1990 by the Board of Managers in memory of Stephen B. Hitchner Jr. with gratitude for his strong leadership of the Student Life Committee and his previous service to the College. Recipients of this need-based, renewable scholarship are selected from the junior class for their interest in a career in the public or nonprofit sectors.
The Betty Stern Hoffenberg '43 Scholarship, established in 1987 in honor of this alumna, is awarded to a junior or senior with academic merit and financial need who shows unusual promise, character, and intellectual strength. Strong preference is given to a student majoring in history.
The Hadassah M. L. Holcombe Scholarship, created by a bequest from this member of the Board of Managers who served from 1938 until her death in 1978, is awarded to a deserving student on the basis of academic merit and financial need, with preference given to a member of the Religious Society of Friends.
The Holland Family Scholarship was established in 2002 by Jim Holland ' 71 and Nancy Holland '72, and is awarded on the basis of academic merit and financial need. The scholarship is renewable.
The Hollenberg-Sher Scholarship was created in 1998 by Norman Sher '52. The renewable scholarship is awarded to a first-year student.
The Carl R. Horten '47 Scholarship was created in 1985 by the Ingersoll-Rand Company on the occasion of his retirement. Preference is given to students planning to major in engineering or prelaw.

The Doris K. Hourihan Scholarship was established in 2006 by Jenny Hourihan Bailin '80 in memory of her mother, Doris K. Hourihan. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Everett L. Hunt Scholarship, endowed in 1973 as a reunion gift by the Class of 1937, honors this beloved emeritus professor and dean and provides an unrestricted scholarship awarded annually by the College.
The Betty P. Hunter '48 Scholarship was created in 1977. Betty P. Hunter, one of the first black students to attend Swarthmore College, established this fund by a bequest to provide scholarship aid to needy students.
The Richard M. Hurd '48 Scholarship was created in 2000 by this alumnus who served on the Board of Managers for almost two decades and his wife, Patricia. The renewable scholarship is awarded with preference given to a student majoring in engineering.
The William Y. Inouye '44 Scholarship was established in loving memory by his family, friends, and colleagues in recognition of his life of service as a physician. The renewable scholarship is awarded to a worthy junior premedical student with need.
The Aaron B. Ivins Scholarship was established with an annuity given in 1928 by Emma Ivins Gower and is awarded to a deserving student on the basis of academic merit and financial need.
The William and Florence Ivins Scholarship, created in 1993 by a bequest from Barbara Ivins ' 35 , is awarded to a student who has demonstrated financial need.
The George B. Jackson '21 Scholarship was endowed in 1986 by Eugene M. Lang '38 in honor of the man who guided him to Swarthmore. The scholarship is awarded on the basis of financial need and academic merit, with preference given to a student from the New York metropolitan area.
The Howard M. '20 and Elsa P. '22 Jenkins Scholarship in engineering provides financial assistance to a promising sophomore or junior with need who is interested in pursuing a career in engineering. It was created in 1993 by the gift of Elsa Palmer Jenkins, Swarthmore’s first woman graduate in engineering.
The George K. and Sallie K. Johnson Scholarship, established in 1928 by a bequest from Sallie Kaign Johnson, is awarded to students with financial need. Sallie Johnson was the mother of Howard Cooper Johnson, Class of 1896.
The Howard Cooper Johnson, Class of 1896, Scholarship, established in 1944 by this alumnus who served on the Board of Managers from 1901 to 1952, is awarded with preference given to a member of the Religious Society of Friends.
The Edmund A. Jones Memorial Scholarship was created in 1965, awarding a grant each year to a

## 5 Financial Aid

graduate of Swarthmore High School and, since 1983, to a graduate of Strath Haven High School. In 2004, this four-year, renewable scholarship was designated with preference for graduates of Strath Haven High School, Delaware County high schools, or Pennsylvania high schools, respectively. Edmund A. Jones was the son of Adalyn Purdy Jones '40, and Edmund Jones '39, longtime residents of Swarthmore.
The Benjamin Kalkstein '72 Scholarship, established by his family in 2002, is awarded to a first-year student on the basis of merit and need and is renewable. Preference is given to students with an interest in environmental studies.
The Kappa Alpha Theta Scholarship, established through the generosity of the members and friends of the sorority at Swarthmore College, is awarded on the basis of academic merit and financial need.
The Kappa Kappa Gamma Scholarship, created by the sorority, is awarded to a first-year student and is renewable.
The Jennie Keith Scholarship was created by an anonymous donor in recognition of outstanding administrators at Swarthmore College. The Keith Scholarship was established in 2000 to honor Jennie Keith, professor of anthropology, who served as provost from 1992 to 2001. The scholarship is awarded to a student who shares the donor's and Jennie Keith's commitment to the use of intellectual excellence in the service of positive social change.
The Michael and Elizabeth Lavin '87 Kelley Scholarship was established in 2004. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Alexander Kemp Endowed Scholarship was established in 2001 by Giles Kemp '72 and Barbara Guss Kemp. The renewable scholarship is awarded on the basis of financial need and academic merit.
The Kennedy Scholarship is given in honor of the parents and with thanks to the children of Christopher '54 and Jane '55 Kennedy. The renewable scholarship, created in 1985, is awarded on the basis of financial need and academic merit.
The Clark Kerr '32 Scholarship was created by an anonymous donor in 2000. The scholarship is awarded with preference given to a student entering his or her senior year, who meets the model described by President Aydelotte of the allaround student with strong interests in academic achievement, athletics, and interests in debating and other aspects of student life and community service.
The Florence and Melville Kershaw Scholarship was endowed in 1987 in their honor by their son Thomas A. Kershaw '60. The renewable scholarship is awarded to a first-year student on the basis of financial need and academic merit, with preference given to those intending to major in engineering.

The Naomi Kies '62 Scholarship was created in 2006 in her memory by her family and friends. Naomi Kies devoted herself to community service, pursuing practical idealism and seeking peaceful solutions to political and social problems. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to international students.
The Joseph W. '44 and Elizabeth Blackburn '44 Kimmel Scholarship was established in 2003 by their son, James B. Kimmel '70. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to students from the Delaware Valley area, including eastern Pennsylvania, southern New Jersey, and Delaware.
The William H. Kistler '43 Scholarship was endowed in 1986 in his memory by his wife, Suzanne '44, his friends, and former classmates. The scholarship is awarded to a needy and deserving student majoring in engineering or economics.
The Floyd C. and Virginia Burger '39 Knight Endowed Scholarship, established by a bequest in 2006, is awarded on the basis of academic merit and financial need.
The Paul '46 and Mary Jane Kopsch Scholarship, established in 1982 through a gift of Paul J. Kopsch, is renewable and awarded each year to a junior premedical student(s) with financial need.
The Jessie Stevenson Kovalenko Scholarship, established in 1944 by Michel Kovalenko in memory of his wife, is awarded on the basis of academic merit and financial need.
The Walter W. Krider, Class of 1909, Memorial Scholarship was established by his wife, Anna Hetzell Mulford Krider, and daughter, Elizabeth Krider Snowden '36, in 1959. The Krider scholarship is awarded to a student who ranks high in scholarship, character, and personality and has financial need.
The Paul Kuenstner '80 Endowed Scholarship was established in 2013. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.
The Kyle Scholarship, established in 1993 by Elena Sogan Kyle '54, Frederick W. Kyle '54, and Robert B. Kyle Jr. '52, is awarded in the junior or senior year to a student who has shown leadership capability, made significant contributions to the life of the College, and demonstrated the need for financial assistance.
The John Lafore, Class of 1895, Scholarship, established in 1956 by his son Laurence Lafore '38 and his daughter Eleanor Lafore Gilbert, is awarded to a deserving student on the basis of academic merit and financial need.
The Laurence Lafore '38 Scholarship was established in his memory in 1986 by family, friends, classmates, and former students. Professor

## 5 Financial Aid

Lafore, author of numerous books and essays, taught history at Swarthmore from 1945 until 1969. This renewable scholarship is awarded to a student showing unusual promise.
The Robert E., Class of 1903, Elizabeth, Class of 1903, and Walter, Class of 1939, Lamb Scholarship was established in 2000 by Walter Lamb, who served on the Board of Managers from 1977 to 2002. The scholarship is awarded on the basis of academic merit and financial need.
The Barbara Lang Scholarship is awarded to a student in the junior class whose major is in the arts, preferably in music, who ranks high in scholarship and has financial need. This renewable scholarship was established in 1984 by Eugene M. Lang '38 in honor of his sister.
The Eugene M. Lang '38 Opportunity Grants are awarded each year to as many as six sophomore students who are selected by a special committee on the basis of distinguished academic and extracurricular achievement and demonstrable interest in social change. Stipends are based on financial need and take the form of full grants up to the amount of total college charges. Each Lang Scholar is also eligible for summer or academicyear community service support while an undergraduate. Projects, which must be approved in advance by a faculty committee, are expected to facilitate social change in a significant way. The program is made possible by a gift of Eugene M. Lang.
The Ida and Daniel Lang Scholarship, established in 1964 by their son, Eugene M. Lang '38, provides financial assistance for a young man or woman who ranks high in scholarship, character, and personality.
The Eleanor B. and Edward M. '30 Lapham, Jr. Scholarship, established in 1996 by Eleanor to honor her husband's memory, is awarded to a firstyear student on the basis of academic merit and financial need. The scholarship is renewable for his or her years of study at Swarthmore.
The E. Hibberd Lawrence Scholarship honors the memory of a student who attended the Swarthmore Preparatory School from 1881 to 1882 and is awarded on the basis of financial need.
The Frances Reiner and Stephen Girard '41 Lax Scholarship was established in 1989 with preference for minority or foreign students who show academic merit and financial need. This scholarship has been endowed by the family of Stephen Girard Lax, who was chairman of the Board of Managers of Swarthmore College from 1971 to 1976.
The Stephen Girard Lax '41 Scholarship was established in 1977 by family, friends, and business associates of Stephen Lax. The scholarship is awarded on the basis of financial need every two years to a student entering the junior year who shows academic distinction,
leadership qualities, and a definite interest in a career in business.
The Alfred and Harolyn Lazarus Scholarship was established in 2008 by their son, Lewis H. Lazarus '78, in honor of his parents' boundless curiosity, great respect for intellectual excellence, high moral character, and service to others. The scholarship is awarded to students on the basis of academic promise and financial need. The renewable scholarship is given with preference for students intending to practice medicine or majoring in history.
The Dorrie '44 and Henry '45 Leader Family Scholarship was established in 2001 in recognition of their many family members who attended Swarthmore College including their children, Martha ' 71 and Elizabeth '73. The scholarship is awarded on the basis of academic merit and financial need.
The Thomas L. Leedom Scholarship was established in 1905 by Hannah A. Leedom in memory of her husband, who always had a deep interest in the success of the College. It is awarded to a deserving student on the basis of academic merit and financial need.
The Raphael Lemkin Endowed Scholarship was established in 2005 by John '77 and Ann '77 Montgomery to honor Raphael Lemkin, a Holocaust survivor who invented the word "genocide" and drafted the Genocide Convention of the United Nations, adopted in 1948. The scholarship is awarded with preference for "upstanders" or students who demonstrate interest in human rights, especially anti-genocide work. The Gerry and Marguerite Lenfest Scholarship was established in 2008. The renewable scholarship is awarded to students on the basis of academic merit and financial need.
The Walter H. Leser '49 Memorial Scholarship was established by his wife, Martha E. Leser, in 2002. The renewable scholarship is awarded on the basis of academic merit and financial need with preference for students majoring in mathematics.
The Carl M. Levin '56 Scholarship was created by an anonymous donor in 2000. The renewable scholarship is awarded to a student with merit and need who has overcome obstacles, with a preference for Michigan public high school graduates.
The Beryl and Leonard Levine Scholarship was established by their daughter, Susan Brauna Levine '78, in 2005 and is awarded on the basis of academic merit and financial need.
The Levine Family Scholarship was established by Jay H. Levine '55 and Michael A. Levine '87 in 2012. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.

## 5 Financial Aid

The Wilma A. Lewis '78 Scholarship was established in 2006 by Wilma A. Lewis. This scholarship is awarded on the basis of academic merit and financial need.
The Lewis-Bill Scholarship was established in 2009 by Robert J. Reynolds, father of Sarah Reynolds '09, to honor his wife, Lucinda M. Lewis '70, and her parents, Robert B. '35 and Margaret Bill '38 Lewis. It is awarded to students on the basis of academic merit and financial need. The Scott B. Lilly Scholarship, endowed by Jacob T. Schless of the Class of 1914 and offered for the first time in 1950, is awarded annually in honor of a former distinguished professor of engineering. Students who plan to major in engineering are given preference.
The Sarah E. Lippincott Scholarship, established in 1918 by Katherine Lippincott Holden in memory of her mother, is awarded to a deserving student on the basis of financial need.
The Lloyd Family Scholarship was established in 2000 by May Brown Lloyd '27, G. Stephen Lloyd '57, and Anne Lloyd '87. The renewable scholarship is awarded with preference given to a student who shows great promise.
The Lloyd-Jones Family Scholarship is the gift of Donald '52 and Beverly Miller '52 Lloyd-Jones and their children Anne '79; Susan '84; Donald '86; and Susan's husband, Bob Dickinson '83. Established in 1990, the renewable scholarship is awarded on the basis of academic merit and financial need.
The Amy Chase Loftin '29 Scholarship was established in 1998. The renewable scholarship is awarded to a sophomore, with preference given to Native Americans and African Americans.
The Joan Longer '78 Scholarship was created as a memorial in 1989 by her family, classmates, and friends, to honor Joan's personal courage, high ideals, good humor, and grace. The renewable scholarship is awarded on the basis of merit and need.
The Mary T. Longstreth Scholarship was established in 1938 by Rebecca C. Longstreth in memory of her mother, who served on the Board of Managers from 1872 to 1887. The scholarship is awarded to a deserving student on the basis of financial need.
The David Laurent Low Memorial Scholarship was established in 1981 by Martin L. Low '40; his wife, Alice; Andy Low '73; and Kathy Low in memory of their son and brother. It is awarded to a man or woman who shows the great promise that David himself did. The award assumes both need and academic excellence and places emphasis, in order, on qualities of leadership and character or outstanding and unusual promise. The renewable scholarship is awarded to a first-year student.
The Lyman Scholarship was established by Frank L. Lyman Jr. '43 and his wife, Julia, on the
occasion of his 50th reunion in 1993. The renewable scholarship is awarded on the basis of financial need to a student who is a member of the Religious Society of Friends or whose parents are members of the Religious Society of Friends.
The Leland S. MacPhail Jr. '39 Scholarship, given by Major League Baseball in 1986 in recognition of 48 years of dedicated service by Leland $S$. MacPhail Jr., is awarded annually to a deserving student on the basis of need and merit.
The Magill Walk Scholarship was established in 2010 by an anonymous donor. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.
The David Mailloux Endowed Scholarship was established in 2005 by his loving parents to celebrate David's life and memory. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Clara B. Marshall Scholarship was established in 1982 by the estate of Dr. Clara Marshall. Clara Marshall was a Philadelphia-area physician and educator from a prominent Quaker family whose leadership as dean of the Women's Medical College led to greatly expanded and improved facilities and course offerings at that institution. The scholarship is awarded to a deserving student on the basis of academic merit and financial need.
The Edward Martin Scholarship, established by a bequest from Edward Martin, a professor of biological sciences at the College, is awarded to a junior or senior with preference for a biology major or premedical student.
The Richard G. Mason Fund, an endowed scholarship, was established in 2012 by the estate of Richard G. Mason '50 and is awarded on the basis of academic merit and financial need with a preference for students studying theater or art history. The scholarship is renewable.
The Jacob and Rae Mattuck Scholarship, created in 2009 by Arthur P. Mattuck '51 in honor of his parents, is renewable and awarded to students based on academic merit and financial need with preference for majors in the sciences, mathematics, statistics, computer science, engineering, music, or the arts.
The Franz H. Mautner Scholarship honors the memory of this Professor Emeritus of German and is awarded to a student who has demonstrated financial need.
The Thomas B. McCabe '15 Awards, established in 1952 by Thomas B. McCabe, are awarded to entering students. Regional McCabe Scholarships are awarded to a few students from the Delmarva Peninsula and from southeastern Pennsylvania (Chester, Montgomery, and Delaware counties). These awards provide a minimum annual scholarship of full tuition or a maximum to cover tuition, fees, room, and board, depending on need.

## 5 Financial Aid

The National McCabe Scholarships are awarded to a few students based on financial need. In making selections for all McCabe Scholarships, the committee places emphasis on ability, character, personality, and service to school and community.
The Charlotte Goette '20 and Wallace M. McCurdy Scholarship is awarded to a first-year student on the basis of financial need and academic merit. The renewable scholarship was endowed by Charlotte McCurdy in 1986.
The Cornelia Dashiell and Dino Enea Petech '35 McCurdy, M.D., Family Scholarship was endowed by Cornelia and Dino E.P. McCurdy, M.D. The scholarship is awarded each year to a well-rounded student with need who demonstrates academic and extracurricular interests based upon sound character and healthy personality traits, with preference given to graduates of George School.
The Dorothy Shoemaker '29 and Hugh '30
McDiarmid Scholarship is awarded to a first-year man or woman on the basis of academic merit and financial need. Established in 1987, the renewable scholarship is the gift of the McDiarmid family in commemoration of their close association with Swarthmore College.
The Helen Osler McKendree '23 Scholarship, created in 1998 by the estate of Helen's brother, E. Morgan Osler, is awarded to a junior majoring in a foreign language or languages.
The Sarah Meade McKitterick Scholarship was established in 2006 by Katherine Burt Anderson '49 to honor the memory of her daughter. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Donald R. McMinn '86, Robert '57, and Tamzin MacDonald '58 McMinn Scholarship was created in 2004 and is awarded on the basis of academic merit and financial need, with preference for students planning a career in business.
The Margaret S. Meeker '45 Scholarship was established in 2005 by Douglas F. Bushnell, Rebecca W. Bushnell '74, and John D. Toner ' 73 in memory of Peggy Meeker, wife and mother, who was full of love and life and who was so happy during her years at Swarthmore College. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Norman Meinkoth Scholarship was established in 1988 by his friends and former students to honor Dr. Norman A. Meinkoth, a member of the College faculty from 1947 to 1978 who died in 1987. This scholarship serves as a memorial and is awarded annually to a worthy student with an interest in the study of biological problems in a natural environment.
The Alison Joanna Meloy '94 Memorial
Scholarship was established in 2006 by her mother and stepfather, Alice and Robert Deal. The scholarship celebrates Alison's love of Swarthmore College and recognizes that some of her happiest years were spent there. The renewable
scholarship is awarded on the basis of academic merit and financial need, with a preference for female students majoring in political science.
The Peter Mertz '57 Scholarship is awarded to an entering first-year student outstanding in mental and physical vigor, who shows promise of using these talents for the good of the College community and of the larger community outside. The renewable scholarship was established in 1955 by Harold '26, LuEsther, and Joyce '51 Mertz in Peter's memory.
The Mari Michener Scholarship provides financial support to four students on the basis of academic merit and financial need. The scholarship is the gift of James Michener '29 and honors his wife.
The Bruce and Florence Miller Scholarship was established in 2006 by their son, Grant Miller '65, to honor his parents' lifetime commitment to education and underserved communities. The renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to students with sensitivity toward diverse underserved communities.
The James E. Miller Scholarship, established by a bequest from Arabella M. Miller in 1924, is awarded to a deserving student on the basis of financial need.
The James H. Miller '58 Scholarship will be established with a gift from the estate of James H. Miller and awarded on the basis of academic merit and financial need.
The Hajime Mitarai Scholarship, established in 1995 by Eugene M. Lang '38 in memory of his close friend and the father of Tsuyoshi Mitarai '98, is awarded to students with financial need. Preference is given to students with international backgrounds.
The Margaret Moore Scholarship, established in 1974 by an anonymous donor, provides scholarships to foreign students, with a preference given to students of South Asian origin. This scholarship honors a Quaker teacher who spent a lifetime of teaching and public service in western India with the people she loved until her death in 1962.

The Kathryn L. Morgan Scholarship was established by an anonymous donor in 2000. The renewable scholarship was created in recognition of Professor Morgan's distinguished teaching and scholarly contributions to the life of the College. Preference is given to students with an interest in black studies.
The Robert '67 and Joan Murray Scholarship was created in 2004 and is awarded on the basis of academic merit and financial need.
The Thomas W. Nash '74 Scholarship was established in 2006. This renewable scholarship is awarded on the basis of academic merit and financial need.

## 5 Financial Aid

The Florence Eising Naumburg Scholarship was named in 1975 in honor of the mother of an alumna of the Class of 1943. The scholarship is awarded to a student whose past performance gives evidence of intellectual attainment, leadership, and character and who shows potential for future intellectual growth, creativity, and scholarship and for being a contributor to the College and, ultimately, to society.
The Albert and Christine Nehamas Scholarship was established in 2004 by Alexander Nehamas '67 and Susan Glimcher in loving memory of Alexander's parents, who strove to provide a sound education for their son. The scholarship is awarded on the basis of academic merit and financial need, with preference for students from Greece or from other foreign countries.
The Thomas S. '30 and Marian Hamming '30 Nicely Scholarship was established in 1987 and is awarded to a first-year student with need who shows promise of academic achievement, fine character, and athletic ability. Preference is given to a person who has been on the varsity tennis, squash, golf, or swimming teams in high school or preparatory school.
The Mary McCusker Niemczewski Scholarship was established in 2005 by Christopher M. Niemczewski ' 74 to honor his mother and is awarded on the basis of academic merit and financial need.
The John H. Nixon '35 Scholarship was established in 1983 by John H. Nixon to assist Third World students, especially those who plan to return to their country of origin.
The Donald E. Noble Scholarship was established in 2002 by the Donald E. and Alice M. Noble Charitable Foundation. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Helen North Scholarship was established in 2002 by Maureen Cavanaugh ' 75 and Christopher Plum '75 in honor of Helen F. North, who, at the time of her retirement from Swarthmore in 1991, was the Centennial Professor of Classics and had been a member of the College faculty for 43 years. Author, traveler, lecturer, and beloved friend, Helen North has always been committed to teaching in a culturally diverse educational community. The scholarship is awarded on the basis of academic merit and financial need.
The Northwest Scholarship was established in 1990 by Constance Gayl Pious '53 to offer financial aid to students from the northwestern United States.
The Edward L. Noyes '31 Scholarship was endowed in 1987 in his memory by his wife, Jean Walton Noyes '32; his three sons; and his many friends. The scholarship is available to an incoming first-year student, with preference given to those from the Southwest, especially Texas. The renewable scholarship is awarded on the basis of
financial need and academic merit to students with broad interests.
The Nancy Triggs Ohland '55 Scholarship was established in her memory in 2006 by her husband, Theodor C. Ohland, and children Karen J. Ohland '83, Matthew W. Ohland '89, and Erik D. Ohland. The scholarship is awarded on the basis of academic merit and financial need, with preference given to a student with a strong record of community service.
The Howard Osborn Scholarship, established by a bequest in 1970 to honor the memory of his parents, Viola L. and Frank Osborn, is awarded to a deserving student on the basis of academic merit and financial need.
The Mark L. Osterweil '94 Memorial Scholarship was established by his family and friends. Mark was an ardent student of European and American history, with a special interest in the economic, intellectual, political, and social relationships and connections between the United States and other countries, peoples, and cultures. Preference in awarding the scholarship is given to American or foreign students whose studies of history are consistent with Mark's wide-ranging interests.
The Martin Ostwald Scholarship was established in 2005 by Christopher Plum '75 in memory of his beloved wife, Maureen Cavanaugh '75. The scholarship is named in honor of Martin Ostwald, the Swarthmore classics professor who had a tremendous lifelong impact on Maureen's development as a classics and legal scholar. It is awarded on the basis of academic merit and financial need, with a preference for classics students, particularly those studying ancient history or philosophy.
The Page-Pixton Scholarship for Study Abroad, established in 2003, is awarded yearly on the basis of financial need to rising juniors or seniors who seek through study abroad experience to prepare themselves to become effective leaders of a more inclusive, generous, and peaceful world.
The Harriet W. Paiste Scholarship was established by a bequest in 1900 to assist those whose limited means would exclude them from enjoying the advantages of an education at this college.
The Rogers Palmer '26 Scholarship, established in 1973, is awarded to a deserving student on the basis of academic merit and financial need.
The Susanna Haines Parry, Class of 1908 and Beulah Haines Parry, Class of 1909 Scholarship, established by a bequest in 1979, is awarded to a deserving student on the basis of academic merit and financial need.
The Tory Parsons '63 Scholarship was established in 1991 in his memory by a member of the Class of 1964 to provide scholarship aid to students with demonstrated need.
The Sibella Clark Pedder '64 Endowment was established in 2005 to enable American students

## 5 Financial Aid

through study abroad to develop deeper understanding of, and improved facility with, a global world. The income from the fund is awarded only to students who qualify for financial aid on the basis of their financial need.
The J. Roland Pennock '27 Scholarships were established in 1973 by Ann and Guerin Todd '38 in honor of J. Roland Pennock, Richter Professor Emeritus of Political Science. Income from this endowment is to be used to award four scholarships on the basis of merit and need, preferably to one scholar in each class.
The Jean A. '49 and Edward B. '49 Perkins Scholarship was established by Jean A. Perkins
'49 in 2002 in memory of her late husband Edward B. '49 Perkins and in honor of their long Matchbox marriage. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.
The T.H. Dudley Perkins, Class of 1906, Scholarship was established in 1920 by his wife, Alice Sullivan Perkins 1904, and other family members and friends to honor the memory of one who died in the service of his country in 1918. The scholarship is awarded to a deserving student on the basis of academic merit and financial need.
The Perry Family Scholarship was created in 2006. Four generations of the Perry family have attended Swarthmore College. At Swarthmore, the Perrys pursued diverse academic paths and participated in team sports. After graduation, they became educators, physicians, and scientists. The Perry Family Scholarship is awarded with preference for a well-rounded premedical student who demonstrates strong academic achievement along with an interest in student life and community service. The scholarship, which may be renewed, is awarded to a student entering his or her junior year.
The Winnifred Poland Pierce '45 Scholarship was established in 1988. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to students who are the first generation in their families to attend college.
The Cornelia Chapman '26 and Nicholas O. Pittenger Scholarship, established in 1961 by their family, is awarded to an incoming first-year student who ranks high in scholarship, character, and personality and needs financial assistance. Cornelia, an honors graduate, was active in alumni activities and served on the Alumni Council from 1945 to 1949. Nicholas ("Pitt") was the controller of the College for 22 years.
The Frances Hughes Pitts Scholarship was established in 2003 by George R. Pitts ' 72 in honor and memory of his mother. The renewable scholarship is awarded on the basis of academic merit and financial need with a preference given to students with an interest in the sciences.

The Rebecca Kemp and Richard Pogir
Scholarship was established in 2009 on the occasion of their marriage as a gift from the bride's parents, Barbara Guss Kemp and Giles Kemp '72. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to a student from South Africa or Africa or with an academic interest in these areas.
The Anthony Beekman Pool '59 Scholarship, established by his family and friends in 1958, is awarded to an incoming first-year man of promise and intellectual curiosity. It is given in memory of Tony Pool, who died of pneumonia in his senior year.
The Ramon L. Posel Scholarship was established in 2005. The scholarship is awarded on the basis of academic merit and financial need.
The Richard '36 and Helen Shilcock '36 Post Scholarship was established in 1995 by Helen Shilcock Post, Bill '61 and Suzanne Rekate '65 Post, Carl '66 and Margery Post '67 Abbott, Barbara Post Walton, Betsy Post Falconi, Richard W. '90 and Jennifer Austrian '90 Post, and their families. The renewable scholarship is awarded to a well-rounded first-year student who demonstrates academic merit, financial need, and an interest in athletic endeavors.
The Elizabeth Carver Preston, Class of 1934, Memorial Scholarship was established in 2001 by the family of Elizabeth "Beth" Preston in recognition of her devotion to Swarthmore College. For Beth, who was a scholarship student, Swarthmore College opened a new world, stimulating her intellectually and introducing her to lifelong friends, including her husband. Her commitment to the College continued after graduation with years of participation in College events and service as an alumna, including several terms on the Board of Managers. Her heartfelt enthusiasm about Swarthmore encouraged numerous young people to consider the College for themselves. In this scholarship, Beth's spirit lives on by enabling others to experience the college life she so cherished. The Preston Scholarship is renewable and awarded on the basis of demonstrated financial need.
The Mary Coates Preston Scholarship, established in 1942 by a bequest from Elizabeth Coates, is awarded to a deserving student on the basis of academic merit and financial need.
The David L. Price '31 Scholarship, established in 1975 by a bequest from this alumnus, is awarded to a deserving student on the basis of academic merit and financial need.
The Henry L. Price Jr., M.D., '44 Scholarship was established in 1994 by Hal and Meme Price. The renewable scholarship, awarded on the basis of merit and need, is given to a student who has declared the intention to choose a major in the Division of Natural Sciences other than

## 5 Financial Aid

engineering. This scholarship is in memory of Dr. Price's parents, Sara Millechamps Anderson and Henry Locher Price.
The Robert Pyle, Class of 1897, Scholarship was established in 1964 by Margery Pyle, Class of 1900, and Ellen Pyle Groff, Class of 1892, in memory of their brother who served for many years on the Board of Managers.
The Martin S. and Katherine D. Quigley Scholarship was established in 2000 by their son, Kevin F. F. Quigley '74, in honor of his parents' steady commitment to family, lifetime learning, and international understanding. The renewable scholarship is awarded each year on the basis of academic merit and financial need. Preference is given to outstanding international students attending Swarthmore.
The Jed S. Rakoff '64 Scholarship was created by an anonymous donor in 2005, in recognition of the benefits of an independent judiciary. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference for students who have demonstrated an interest in public affairs.
The Raruey-Chandra and Niyomsit Scholarships were established in 1980 by Renoo Suvarnsit ' 47 in memory of his parents. They are awarded in alternate years: the Raruey-Chandra Scholarship to a woman for her senior year and the Niyomsit Scholarship to a man for his senior year, to a student of high academic standing and real need for financial aid. Preference is given to a candidate who has divorced or deceased parents.
The George G. and Helen Gaskill '18 Rathje Scholarship, established by a bequest in 1985, is awarded to a deserving student on the basis of academic merit and financial need. Helen was a writer and a college drama teacher. Her husband was a professor of German.
The Reader's Digest Foundation Endowed Scholarship, created in 1959, is awarded to a deserving student on the basis of academic merit and financial need.
The Mark E. Reeves Scholarship was established in 1905, when Caroline E. Reeves of Richmond, Ind., gave to Swarthmore College the sum of $\$ 5,000$ for the purpose of founding a scholarship in memory of her husband who "was one of the first subscribers to the College and always had a deep interest in its success." The fund is part of the general scholarship fund.
The Fred C. and Jessie M. Reynolds Scholarship, established in 1984 by a bequest from Jean Reynolds '32, is awarded to a deserving student on the basis of academic merit and financial need.
The Lily Tily Richards '29 Scholarship was established in 1963 by Peirce L. Richards Jr. '27 in memory of his wife, who was active in Swarthmore alumni activities. This scholarship is awarded to a deserving student on the basis of academic merit and financial need.

The Adele Mills Riley '37 Memorial Scholarship, established in 1964 by her husband, John R. Riley, is awarded to a deserving student on the basis of academic merit and financial need.
The Lewis M. Robbins '40 Scholarship was established by Lewis M. Robbins in 2002. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Michael J. Robbins Living Memorial Endowed Scholarship was established anonymously in 2007 to celebrate the memory of Michael J. Robbins and to recognize the important role scholarships play in assisting talented students with substantial financial need to receive a Swarthmore College education. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Byron T. Roberts, Class of 1912, Scholarship, endowed in 1973 by his family in memory of Byron T. Roberts, is awarded annually to an incoming student and is renewable.
The Louis N. Robinson, Class of 1905, Scholarship was established in 1964 during the College's centennial year by the family and friends of Louis N. Robinson. Mr. Robinson was for many years a member of the Swarthmore College faculty and founder of the Economics Discussion Group. A member of the junior or senior class who has demonstrated interest and ability in the study of economics is chosen for this award.
The Edwin P. Rome '37 Scholarship provides financial assistance to worthy students with financial need. The scholarship was established in 1987 in memory of Edwin P. Rome by his wife, Rita Rome, and The William Penn Foundation, on whose board he served.
The Matthew Rosen '73 Scholarship was established in 2004 and is awarded on the basis of academic merit and financial need.
The Alexis Rosenberg Scholarship, established in 1983 by The Alexis Rosenberg Foundation, now the Alexis Rosenberg Fund of the Greenfield
Foundation, provides aid for a first-year student. The scholarship is awarded annually to a worthy student who could not attend the College without such assistance.
The Girard Bliss Ruddick '27 Scholarship was established in 1987 by J. Perry Ruddick in memory of his father. The renewable scholarship is awarded to a junior on the basis of academic merit and financial need, with preference given to an economics major.
The Charles F. C. Ruff '60 District of Columbia Scholarship memorializes distinguished alumnus Charles F. C. Ruff, who died in 2000. Preference is given to students with financial need who live in the District of Columbia.
The Edith A. Runge '38 Scholarship, created in 1971 by a bequest from her estate, is awarded to a deserving student on the basis of academic merit and financial need. A professor, Edith Runge

## 5 Financial Aid

chaired the German Department at Mount Holyoke College at the time of her death.
The David Barker Rushmore, Class of 1894,
Scholarship, established in 1974 in honor of David Barker Rushmore by his niece Dorothea Rushmore Egan '24, is awarded annually to a worthy student who plans to major in engineering or economics.
The Carl E. Russo '79 Business Scholarship was established in 2000 and financially supports rising sophomores, juniors, and seniors with a strong and expanding interest in business and entrepreneurship. The renewable scholarship is awarded on the basis of financial need and academic merit.
The Bernard Saffran Legacy Scholarship honors Bernie Saffran's contribution to making Swarthmore a place to pursue academic passions without forgetting an obligation to strive for a better world. Established in 2008, the scholarship is awarded on the basis of academic merit and financial need, with preference given to students with an interest in economics, political science, or philosophy.
The Professor Bernard "Bernie" Saffran Scholarship was created in 2005 by students, colleagues, and friends in honor and memory of Bernie Saffran, distinguished economist, gifted teacher, international mentor, raconteur, and treasured member of the Swarthmore College faculty from 1967 to 2004. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to economics majors with an interest in public policy. The William B. Sailer '82 Scholarship was created in 2004 and is awarded on the basis of academic merit and financial need.
The Richard B. Saltzman '77 Scholarship was established in 2006 by Richard B. Saltzman. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Amelia Emhardt Sands '31 Scholarship, created in 1995 by a bequest from her estate, is awarded to a student who has demonstrated financial need.

The Katharine Scherman '38 Scholarship is awarded to a student with a primary interest in the arts and the humanities who has special talents in these fields. Students with other special interests, however, will not be excluded from consideration. Established in 1963 by her husband, the renewable scholarship honors Katharine Scherman.
The Peter '57 and David '58 Schickele Scholarship was established by an anonymous donor in 2000. Named for Peter and in memory of his brother, David, it is awarded on the basis of academic merit and financial need. Preference is given to students from the Native American community in the plains, desert, and mountain states west of the Mississippi River.

The Schmidt/Lyman Scholarship, established in 2005 , is awarded on the basis of academic merit and financial need. The scholarship is renewable.
The Walter Ludwig Schnaring Scholarship was established in 1998 by a gift from the estate of Helen Hillborn Schnaring, in memory of her husband. This renewable scholarship is unrestricted.
The Schneck Family Scholarship was established in 2001 by Jennifer Schneck '83. The renewable scholarship is awarded on the basis of academic merit and financial need.

The Howard A. Schneiderman '48 Scholarship, established in 1991 by his family, is awarded to a first-year student and is renewable. Preference is given to students with an interest in the biological sciences.

The Schoenbaum Family Scholarship was established in 2003 by Stephen B. Schoenbaum '62. It is awarded on the basis of academic merit and financial need and is renewable. Preference is given to first-generation college students.
The Gustavo R. Schwed '84 and Lucy E.
Harrington '85 Scholarship was established in 2006 by Gus Schwed and Lucy Harrington. The renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to economically disadvantaged students who represent the first generation in their families to attend college.
The Dick Senn '56 Scholarship was established in 2012 in loving memory by his wife Barbara Sachs Senn and their children in recognition of Dick’s devotion to Swarthmore. He brought his entrepreneurial spirit, his constant quest for knowledge, his involvement in the political process, his value of education, and love of life and humanity to his everyday life and to each interview he did with prospective Swarthmore students. This renewable scholarship is awarded on the basis of financial need and academic merit, with preference for African American or Latino students, preferably majoring in political science.
The William G. and Mary N. Serrill Honors Scholarship, created in 1931 through a gift from William's estate, is awarded to a deserving student on the basis of financial need.
The Clinton G. Shafer '51 Scholarship, established in 1964 by his family, is awarded to a deserving student on the basis of academic merit and financial need, with preference given to engineering and physical science majors. The Joe '25 and Terry Shane Scholarship was created in 1986 in honor of Joe Shane, who was vice president of Swarthmore College's Alumni, Development, and Public Relations from 1950 to 1972, and his wife, Terry, who assisted him in countless ways in serving the College. The renewable scholarship was established by their son, Larry Shane '56, and his wife, Marty Porter Shane '57, in remembrance of Joe and Terry's

## 5 Financial Aid

warm friendship with generations of Swarthmore alumni. This award is made to a first-year student on the basis of academic merit and financial need.
The Roy J. '70 and Linda G. Shanker Scholarship was established in 2006. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Leonard Shapiro Scholarship was established in 2004 by his son, Robin Marc Shapiro '78. The award assumes both academic excellence and financial need and is awarded to a first-year student who shows great promise. Preference for this renewable scholarship is given to a student who is the first generation of his or her family to attend a college or university in the United States.

The Felice K. Shea '43 Scholarship was established in 2004 by an anonymous donor and honors the Honorable Felice K. Shea, who has dedicated her life to issues of justice and public service throughout her 25 years on the bench and her work with the Legal Aid Society of New York.
The renewable scholarship is awarded on the basis of academic merit and financial need with preference for a student looking toward a career in public service.
The Philip Shen and Sylvia Lo Shen Scholarship was established in 2006 by an anonymous donor to honor the parents of the donor's classmate, Kairos Shen '87. This renewable scholarship is awarded on the basis of academic merit and financial need. Preference is given to Chinese students who are not U.S. citizens and students interested in religious studies.
The Florence Creer Shepard '26 Scholarship, established in 1988 by her husband, is awarded on the basis of high scholastic attainment, character, and personality.
The Caroline Shero '39 Endowed Scholarship, established on the occasion of her retirement from Swarthmore College in 1982, is awarded to a student who has demonstrated financial need.
The Annie Shoemaker Scholarship was created in 1899 and honors the memory of a member of the Board of Managers who served from 1876 to 1883 and 1891 to 1903. The scholarship is awarded to a student on the basis of financial need.
The Sarah W. Shreiner Scholarship, given in 1965 in loving memory by her daughter, Leah S. Leeds ' 27 , is awarded to a deserving student on the basis of academic merit and financial need. Leah created the scholarship because she was "able to finish at Swarthmore due to someone's kindness in making money available" when her father fell ill and her family suffered extreme financial hardship.
The Barbara L. '86 and Salem D. Shuchman '84 Scholarship, created in 2000, is awarded to a junior or senior who intends to enter the teaching profession. The recipient is chosen by the Financial Aid Office in consultation with the faculty of the Educational Studies Department at Swarthmore College.

The William C. '47 and Barbara Tipping '50 Sieck Scholarship was established in 1979 by the Siecks and is awarded annually to a student showing distinction in academics, leadership qualities, and extracurricular activities and who indicates an interest in a career in business.

The Gary J. Simon '79 Scholarship was established in 2002. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Walter Frederick Sims, Class of 1897, Scholarship, established in 1975 by a gift from the estate of Florence Sims, is awarded to a deserving student on the basis of academic merit and financial need.

The Daniel M. Singer '51 Endowed Scholarship was established in 2005 by Maxine Frank Singer '52 in honor of her husband. This renewable scholarship is awarded on the basis of academic merit and financial need.

The Rose and Simon Siskin Scholarship was established in 2004 in loving memory by their family to provide financial aid on the basis of academic merit and financial need.
The Virginia L. '40 and Robert C. Sites Scholarship, established in 2003 by a bequest from Virginia Sites, is awarded to a deserving student on the basis of academic merit and financial need. The Nancy Baxter Skallerup Scholarship was established in 1982 by her husband and children The renewable scholarship is awarded to a firstyear student with financial need.
The Ann Brownell Sloane '60 Scholarship was established in 2002 by Ann Brownell Sloane. Preference is given to a student majoring in history.
The William W. Slocum '43 Scholarship was established in 1981 and is awarded to a deserving student on the basis of academic merit and financial need.
The Courtney C. Smith Scholarship, established in 1987 by the Smith family and members of the Class of 1957, is for students who best exemplify the characteristics of Swarthmore's ninth president: intellect and intellectual courage, natural dignity, humane purpose, and capacity for leadership. Normally, the award is made to a member of the first-year class on the basis of merit and need. Recipients of this renewable scholarship gain access to a special file in the Friends
Historical Library left by the scholarship's creator, the Class of 1957, inviting them to perpetuate the memory of this individual's 16 years of stewardship of the College's affairs and his tragic death in its service.
The W.W. Smith Charitable Trust provides scholarships to qualifying students from the five surrounding counties in the Philadelphia area. The Smith Charitable Trust has contributed significant

## 5 Financial Aid

annual funds (as opposed to endowed funds) to Swarthmore student scholarships over many years.
The Elizabeth Thorn Snipes Scholarship was established in 2004 by Jim Snipes '75. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to students majoring in religion or philosophy
The Harold E. '29 and Ruth Calwell Snyder Premedical Scholarship, the gift of Harold E. Snyder in 1992, provides support up to full tuition and fees for junior or senior premedical students and is awarded on the basis of academic merit and financial need.
The Cindy Solomon Memorial Scholarship was created in 1979 by her parents, Mary and Frank Solomon, Jr. '50. It is awarded with preference given to a young woman in need of financial assistance who has a special talent in poetry or other creative and imaginative fields.
The Frank Solomon Memorial Scholarship was created in 1955 by family, friends, and the Joseph \& Feiss Company Charity Fund. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Frank Solomon Jr. '50 Scholarship was established in 2004. The scholarship is awarded on the basis of academic merit and financial need.
The Helen Solomon Scholarship was given in 1988 in her memory by her son, Frank Solomon Jr. '50. The renewable scholarship is awarded to a firstyear student on the basis of merit and need.
The Southern California Endowed Scholarship Fund was established in 2014 by California First National Bank and Leslie Jewett '77. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable. Preference will be given to students from Los Angeles or Orange Counties, with a second preference being the state of California.
The Babette S. Spiegel '33 Scholarship, given by her family in 1972 in memory of Babette S. Spiegel, is awarded to a student showing very great promise as a creative writer (in any literary form) who has need of financial assistance. The English Department assists in the selection.
The William T. '51 and Patricia E. Spock Scholarship was established in 2000 by Thomas E. '78 and Linda M. Spock. This renewable scholarship is awarded with preference given to a man or woman majoring in mathematics or the fine arts.
The Harry E. Sprogell '32 Scholarship, established in 1981 in memory of Harry E. Sprogell '32 in honor of his class's 50th reunion, is awarded to a junior or senior with financial need who has a special interest in law or music.
The Mary L. Sproul, Class of 1907, Scholarship was established by a bequest in 1949 from this alumna, cousin of former Pennsylvania governor,

William Sproul. The scholarship is awarded to a deserving student on the basis of academic merit and financial need.

The Helen E. W. Squier Scholarship, created in 1892, provides financial aid to a student with need. The Helen G. Stafford '30 Scholarship, established by a bequest from the estate of her sister, Anna R. Stafford, is awarded to a deserving student on the basis of financial need.
The C. V. Starr Scholarship, established in 1988 by The Starr Foundation as a memorial to its founder, provides scholarship assistance on the basis of academic merit and financial need.
The David Parks Steelman Scholarship, established in his memory in 1990 by C. William '63 and Linda G. Steelman, is awarded annually to a deserving male or female student on the basis of academic merit and financial need, with preference given to someone showing a strong interest in athletics.
The Stella Steiner Scholarship was established in 1990 by Lisa A. Steiner '54 in honor of her mother. The renewable scholarship is awarded to a first-year student on the basis of academic merit and financial need.
The Anne C. Stephens and Janaki Ramaswamy Scholarship was established in 2006 by Christianna Strohbeck '80 and Ramaswamy Murari. The renewable scholarship is awarded on the basis of academic merit and financial need Preference is given to students who demonstrate a commitment to teaching or counseling to develop the human and intellectual potential of others.
The Morris and Pearl Donn Sternlight
Scholarship, established by their son, Peter D. Sternlight '48, in 2005, is awarded on the basis of academic merit and financial need.
The Thomas D. '87 and Kathleen B. '87 Stoddard Scholarship was established in 2004. This gift of restricted endowment funds is awarded on the basis of academic merit and financial need.
The Clarence K. Streit Scholarship, established in 1975, is awarded to a student entering the junior or senior year and majoring in history. Preference is given to persons, outstanding in initiative and scholarship, who demonstrate a particular interest in early American history. This scholarship honors Clarence K. Streit, author of Union Now: A Proposal for an Atlantic Federal Union of the Free, whose seminal ideas were made public in three Cooper Foundation lectures at Swarthmore.
The Francis Holmes Strozier '57 Memorial
Scholarship, created in 1956 by his parents
following his death, is awarded to a deserving student on the basis of academic merit and financial need.
The Joseph T. Sullivan Scholarship, established by a bequest in 1922, is awarded to a deserving student on the basis of academic merit and financial need.

## 5 Financial Aid

The Solon E. Summerfield Endowed Scholarship, established in 1991 by the Summerfield Foundation, is awarded on the basis of academic merit and financial need with a preference for students from the Midwest.
The Swarthmore College Asian Scholarship was established in 2003 by Ahna Dewan '96, Terence Graham '94, Bruce Wook Han '86, George Hui '75, Min Lee '00, Thomas Lee '73, Benjamin Su '96, Mark Tong '99, Quoc T. Trang '93, Stephanie Wang '99, and Michael Yu '88. The scholarship is awarded on the basis of financial need and academic excellence (or potential for academic excellence) to Swarthmore College students of Asian ancestry (excluding U.S. nationals).
The Katharine Bennett Tappen, Class of 1931, Memorial Scholarship was established in 1979 by her sister, a member of the Class of 1928, and is awarded to a first-year student. The scholarship is renewable for four years at the discretion of the College. Preference is given to a resident of the Delmarva Peninsula.
The Newton E. Tarble, Class of 1913, Award, established in 1961 by Newton E. Tarble, is granted to a first-year man who gives promise of leadership, ranks high in scholarship, character, and personality, and resides west of the Mississippi River or south of Springfield, Ill.
The Julia Fishback Terrell '45 Scholarship was established in 2004 by Burnham Terrell '45 in honor and memory of Julia Terrell. The renewable scholarship is awarded on the basis of academic merit and financial need with a preference given to students with potential for service to the College.
The Ravi Thackurdeen '14 Memorial Scholarship was established in 2012 by the Thackurdeen family and friends in memory of a young man who not only embraced life with every fiber of his being, but touched others' lives so profoundly. Filled with boundless energy and enthusiasm, Ravi cherished his time at Swarthmore-a place he said "felt like home"-as well as his many dynamic learning experiences and the opportunities afforded to him as a student. His greatest wish was to "make a difference in the world." This scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.
The John S. Thayer Endowed Scholarship was established by a bequest from this friend of the College in 2007. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Phoebe Anna Thorne Memorial Scholarship was established by a Thorne family member in 1911. Preference is given to members of the New York Quarterly Meeting of the Religious Society of Friends. The scholarship is renewable.
The Titus Scholarship was established by a bequest from Georgiana Titus, Class of 1898, and
is awarded to a deserving student on the basis of academic merit and financial need.
The David Todd '38 Scholarship was established in 2004 in his memory by his daughter, Rebecca Todd Lehmann '64, and her husband, Scott K. Lehmann '64. The scholarship is awarded on the basis of academic merit and financial need with preference for a student in the natural sciences.
The Jean Goldman Todd and Alden Todd '39
Endowed Scholarship was established in 2002 by writer and editor Alden Todd. The late Jean Goldman Todd was a research biologist specializing in tissue culture. The renewable scholarship is awarded on the basis of academic merit and financial need with preference given to students concentrating in the life sciences.
The Patricia Trinder Scholarship, awarded on the basis of academic merit and financial need, is renewable. This scholarship was created in 2006 to honor the memory of Pat Trinder, recruitment manager and assistant director of career services (1988-2003) and secretary to the chairman of athletics (1979-1988). Pat's long career at the College was dedicated to reaching out, serving, supporting, encouraging, and being a friend to students as they navigated life at Swarthmore. She is remembered for her compassion, her larger-than-life personality, and her warmth toward others. The donors to this scholarship hope it will be awarded to a student who exemplifies this spirit.
The Audrey Friedman Troy Scholarship, established in 1964 by her husband, Melvin B. Troy '48, is awarded to a first-year man or woman. Prime consideration for this renewable scholarship is given to the ability of the prospective scholar to profit from a Swarthmore education and to be a contributor to the College and, ultimately, to society.
The Jane Hausman and Geoffrey M. B.'75 Troy Scholarship, established in 1999, is awarded annually to a deserving student on the basis of academic merit and financial need, with preference given to art history majors.
The Robert C. '36 and Sue Thomas '35 Turner Scholarship, established in 1987, is awarded to a deserving student on the basis of academic merit and financial need.
The Daniel Underhill Scholarship was established by a bequest from Edward Clarkson Wilson, Class of 1891, and a gift by Daniel Underhill, Jr. Class of 1894. The scholarship is named for Daniel Underhill and also recognizes Underhill's father's 31-year tenure on the Board of Managers. The scholarship is awarded to a deserving student on the basis of financial need.
The Vaughan-Berry Scholarship was established in 1963 by Harold S. Berry '28 and Elizabeth Vaughan Berry '28 through their estate plans to provide financial assistance to needy students.

## 5 Financial Aid

The William Hilles Ward, Class of 1915, Scholarship was established in 1967 by family members in memory of this alumnus who served on seven committees during his years on the Board of Managers. It is awarded to a deserving student on the basis of academic merit and financial need with preference for a science major.
The Gertrude S. Weaver '38 Scholarship was endowed in her memory by her longtime friend and companion Anna Janney de Armond '32. The scholarship, renewable in the senior year, is awarded each year to a woman student planning a career in teaching, with preference given to a student who is majoring or has a special interest in German or Chinese language, literature, history, or European history.
The Ellen V. Weissman '72 Scholarship was created in 2000. The renewable scholarship is awarded annually on the basis of academic merit and financial need.
The Stanley and Corinne Weithorn Scholarship was established in 1981. The renewable scholarship is awarded with preference given to a student who has expressed a serious interest in the area of social justice and civil rights.
The Suzanne P. Welsh Scholarship was created in 2000 by an anonymous donor in recognition of outstanding administrators at Swarthmore College. The Welsh fund was established in honor of Suzanne P. Welsh, who joined the College staff in 1983 and became its treasurer in 1989 and vice president for finance and treasurer in 2002. The renewable scholarship is awarded on the basis of academic merit and financial need.
The David '51 and Anita '51 Wesson Scholarship was established on the occasion of their 50th reunion in honor of their parents, Eleanor and Castro Dabrohua and Marion and Philip Wesson. The renewable scholarship is awarded to a firstyear student on the basis of academic merit and financial need. Preference is given to a student who is the first in his or her family to attend college.
The Dan and Sidney West Scholarship was established in 2003 by an anonymous donor to reflect the appreciation, respect, and affection that the Swarthmore College community holds for the Wests and to honor their significant accomplishments at institutional, community, and personal levels. In 2007, Dan and Sidney added funds to this endowment. The renewable scholarship is awarded on the basis of financial need and academic merit, with a preference for students from Arkansas, Oklahoma, or Texas.
The Westbury Quarterly Meeting Scholarship was created in 1874, when the Westbury Quarterly Meeting, N.Y., turned over to Swarthmore College a fund of $\$ 5,000$, called the Educational Fund belonging to the Westbury Quarterly Meeting. The scholarship is awarded to students with financial need.

The Larry E. and Myrt C. Westphal Scholarship was established by Karan Madan '91, Suzanne Buckley '89, and Jason Cummins '90, with additional gifts from other appreciative students, friends and colleagues. The scholarship honors Professor Westphal's teaching excellence and the impact he had through his microeconomics, economic development, Asian economies and environmental studies classes, and Dean Westphal's dedication and work in housing, disabilities, the Lang Scholar program and personal advising. The scholarship is awarded each year on the basis of academic merit and financial need and is renewable.
The Deborah F. Wharton Scholarship was created in 1875 and honors the mother of Joseph Wharton, who served on the Board of Managers from 1883 to 1907. The scholarship is awarded to a deserving student on the basis of financial need.
The White Family Scholarship, established in 1972, provides financial aid for a deserving student. A preference is given to students with an interest in business, economics, or engineering.
The Widdicombe Family Scholarship was established in 2006 by Stacey "Toby"
Widdicombe III '74, Gerard C. Widdicombe, and Elizabeth A. Widdicombe in honor of their parents. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Frederick J. Wiest Jr. '37 and Elizabeth S. Wiest '38 Scholarship was established in 2006 and is awarded on the basis of academic merit and financial need.
The Rachel Leigh Wightman Scholarship was created in 2000 by Colin W. ' 82 and Anne Bauman ' 82 Wightman in memory of their daughter. The renewable scholarship is awarded to a gentle person whose quiet, unrelenting love of learning inspires similar passion in those around them. The scholarship is awarded on the basis of need to a worthy student.
The Erik Joseph Wilk '90 Scholarship, established in 2005, is awarded on the basis of academic merit and financial need with a preference for someone who embraces, and has a sensitivity for and acceptance of diversity, including other cultures and sexual orientations.
The Samuel Willets Scholarship was created in 1885 to honor a member of the original committee to solicit funds for "The Establishment of Swarthmore College" who also served on the Board of Managers from 1862 to 1883. The scholarship is awarded to a deserving student on the basis of financial need.
The I.V. Williamson Scholarship, established in 1885 by a gift from the sale of property by this Philadelphia merchant and philanthropist, is awarded to a deserving student on the basis of academic merit and financial need.
The Edward Clarkson Wilson and Elizabeth T. Wilson Scholarship, established in 1948 to honor

## 5 Financial Aid

the former principal of the Baltimore Friends School and his wife, is awarded to a deserving student on the basis of financial need.
The Elmer L. Winkler '52 Scholarship, established in 1980 by this alumnus, is awarded annually to a deserving student on the basis of academic merit and financial need.
The Ned Winpenny '74 Memorial Scholarship was established in 2000 by an anonymous donor. The renewable scholarship is awarded on the basis of academic merit and financial need.
The Phyllis M. Wang Wise '67 Endowed Scholarship was established in 2009. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to students of color majoring in biology.
The Bryan '84 and Elisabeth Wolf Scholarship was established in 2014 in honor of Bryan's 30th reunion. The scholarship shall be awarded to students on the basis of academic merit and financial need and is renewable.
The Robert Wolf '39 Scholarship was endowed in his memory by his sisters, Ruth Wolf Page '42 and Ethel Wolf Boyer ' 41 . The renewable scholarship is awarded each year on the basis of need and merit to a junior or senior majoring in chemistry or biology.
The Letitia M. Wolverton, Class of 1913,
Scholarship, given by a bequest in 1983 from Letitia M. Wolverton, provides scholarships for members of the junior and senior classes who have proved to be capable students and have need for financial assistance to complete their education at Swarthmore College.
The Mary Wood Scholarship, created through a bequest in 1898 from this Media, Pa., resident, is awarded to a deserving student on the basis of financial need.
The Roselynd Atherholt Wood '23 Scholarship, established in 1983 by this alumna, is awarded to a deserving student on the basis of academic merit and financial need.
The Thomas Woodnutt Scholarship was established in 1905 by Hannah H. Woodnutt, then a member of the Board of Managers, in memory of her husband, who had from the beginning taken a great interest in Swarthmore College.
The Frances '28 and John '30 Worth Scholarship was established by Frances Ramsey Worth in 1993. The renewable scholarship is awarded to a first-year student with strong academic credentials and financial need.
The David Wright '65 Scholarship was established in 2005 and is awarded on the basis of academic merit and financial need.
The Elizabeth Cox Wright Endowed Scholarship was established in 2006 by Pamela Taylor Wetzels '52 to honor an outstanding, beloved teacher known for instilling a love of Shakespeare in her students and holding poetry seminars in her home.

Elizabeth Cox Wright came to Swarthmore College as an instructor of English in 1930 and retired as a professor emerita of English in 1964. She died in 1973. This renewable scholarship is awarded on the basis of academic merit and financial need.
The Harrison M. Wright Scholarship was created in 1993 by friends, colleagues, and former students of Harrison M. Wright, Isaac H. Clothier Professor of History and International Relations, on the occasion of his retirement from the College. The scholarship supports a student who will study in Africa.

The Michael M. and Zelma K. Wynn Scholarship, established in 1983 by Kenneth R. Wynn '74 in honor of his mother and father, is awarded annually to a student on the basis of need and merit.

The Richard A. Yanowitch '81 Scholarship, established in 2002, reflects the donor's encouragement of student interest in international relations and cross-cultural development. The renewable scholarship is awarded on the basis of academic merit and financial need, with preference given to African Americans and other minority groups. It is hoped that during his or her time at the College, the Yanowitch scholar will study history, languages, and international cultures. The Paul Ylvisaker H'78 Scholarship was established in 2008 by a member of the Class of 1952 to honor an articulate, inspiring, and charismatic faculty member who taught political science from 1948 to 1955. In 1978, Paul Ylvisaker returned to Swarthmore to receive an honorary degree, which recognized his contributions as a champion of cities and the urban underclass as a planner, government official, foundation executive, and educator. This scholarship is awarded to students on the basis of academic merit and financial need.

### 6.1 The Residential College Community

Swarthmore College seeks to help its students realize their full intellectual and personal potential, combined with a deep sense of ethical and social concern. The purpose of Swarthmore College is to make its students more valuable human beings and more useful members of society. The College is committed to student learning in and out of the classroom and thus supports the personal and leadership development of students through extracurricular activities.

### 6.1.1 Student Rights, Responsibilities, and Code of Conduct

Students are expected to familiarize themselves with the policies and rules concerning their conduct. The Student Handbook provides information about academic freedom and responsibility; ethical use of the library and other educational resources; standard citation practices; the information technology acceptable use policy; and the policies and procedures that guide the process when academic or behavioral misconduct is suspected.

### 6.2 Residential Life

Swarthmore is a primarily residential college, conducted on the assumption that the close association of students and instructors is an important element in education. Most students live in college residence halls all four years. New students are required to live in the residence halls during their first two semesters. After their first year at the College, students are permitted to live in non-College housing.

### 6.2.1 Housing

Seventeen residence halls, ranging in capacity from 8 to 214 students, offer a diversity of housing styles. Several of the residence halls are a 5 to 15minute walk to the center of campus.
Swarthmore's residence halls are Alice Paul;
Dana; David Kemp (the gift of Giles Kemp '72 and Barbara Guss Kemp, in honor of Giles' grandfather); Hallowell; Kyle House (named in honor of Fred and Elena Kyle '55); Lodges; Mary Lyon; Mertz Hall (the gift of Harold and Esther Mertz); Palmer; Pittenger; Roberts; the upper floors in the wings of Parrish Hall; Strath Haven; Wharton Hall (named in honor of its donor, Joseph Wharton, a one-time president of the Board of Managers); Willets Hall (made possible largely by a bequest from Phebe Seaman and named in honor of her mother and aunts); Woolman House; Worth Hall (the gift of William P. and J. Sharples Worth, as a memorial to their parents).
A mixture of class years live in each residence hall. About 90 percent of residence hall areas are designated as coeducational housing either by floor, section, or entire building. The remaining areas are single-sex housing.

Although single-sex options are offered, they are not always available and as such cannot be guaranteed. Students should not expect to live in single-sex housing for all four years. In these single-sex sections, students may determine their own visitation hours up to and including 24-hour visitation restrictions.
First-year students are assigned to rooms by the deans. Efforts are made to follow the preferences indicated and to accommodate special needs, such as documented disabilities. After the first year, students choose their rooms in an order determined by a housing lottery or by invoking special options-among these are block housing, allowing friends to apply as a group for a section of a particular hall. There is also the opportunity to reside at neighboring Bryn Mawr and Haverford colleges in a cross-campus housing exchange that proceeds on a matched one-for-one basis. Firstand second-year students typically reside with roommates, whereas juniors and seniors may select single rooms (as available). All students are expected to occupy the rooms to which they are assigned or which they have selected through the regular room choosing process unless authorized by the deans to move.
Resident assistants, selected from the junior and senior classes, are assigned to each of the residence halls. These leaders help create activities for students, serve as support advisers to their hallmates, and help enforce College rules for the comfort and safety of the residents.
Residence halls remain open during fall break, Thanksgiving, and spring break, but are closed to student occupancy during winter vacation. Specific winter vacation dates are set each year, but generally include a 4-5 week period from midDecember through mid-January. No meals are served during fall and spring breaks.
Guests- Friends of Swarthmore students are welcome to visit campus. If a guest of a student will be staying in a residence hall overnight, the resident assistant must be notified, and all roommates must agree to allow the guest to stay. A guest is not permitted to stay in a residence hall more than four nights each term. Residence halls are designed for our student population, and as such children, non college-aged individuals, parents, and other adults should not be overnight guests. A guest is never permitted to sleep or reside in any public location (such as a dorm lounge, basement, or other public space). Requests for exceptions must be made to the Assistant Dean for Residential Communities. The Dean's Office reserves the right to require a guest to leave campus if their behavior begins to have an impact on the campus community or is otherwise disruptive.
Student hosts are responsible for the conduct of their guests on campus and will be held accountable for any violation of the code of
conduct or other rules of the College committed by a guest.
More detailed housing rules and regulations are
found in the Student Handbook, and on the housing website: www.swarthmore.edu/housing.

### 6.2.2 Storage and Insurance

College storage is not available for student belongings, and will be completely phased out with the end of the spring 2015 semester. Students will need to plan in advance if they are not able to transport their items home during the summer semester. Students will move between residence halls a minimum of four times while at
Swarthmore; we encourage students to pack lightly and only come with essential items.
The insurance program for the College is designed to provide protection for College property and does not include the property of students or others. Students and their parents are strongly urged to review their insurance program in order to be sure that coverage is extended to include personal effects while at college.

### 6.2.3 Dining

All students living in campus housing must participate in one of the College's three meal plans which include 3 guests meals a semester. Students living off campus may subscribe to the meal plans, or they may add points to their card or 7 Anytime Meals a week for the semester drom the Dining Services office in Sharples Dining Hall room 204. Swarthmore's Dining Services oversees the main dining facility in Sharples Dining Hall, Essie Mae's Snack Bar, the Kohlberg Coffee Bar, the Science Center Coffee Bar, and the Mary Lyon's Breakfast Room and a weekday Grab-N-Go lunch program.
Sharples Dining Hall is open Monday through Friday, 7:30 a.m. to 8:00 p.m.; Saturday, 7:30 a.m. to 6:30 p.m.; and Sunday, 10 a.m. to 6:30 p.m.
Unlimited servings are permitted, but take-out is not. Although a sincere effort is made to meet the dietary needs of all students, not all special requirements can be accommodated. Kosher meals are not available in the dining hall.
Essie Mae's Snack Bar, the Kohlberg coffee bar, and the Science Center coffee bar are cash operations. Students may use their meal equivalency at Essie Mae's but not at the coffee bars. The two coffee bars as well as the snack bar accept points but the coffee bars are not set up as meal replacement options. Mary Lyon's Breakfast Room serves a hot breakfast on Saturday and Sunday, which is prepared by students. Mary Lyon's residents and guests may use regular meal credit to partake in the weekend breakfast.
Swarthmore students may obtain passes to eat at the Bryn Mawr and Haverford college dining halls from the Checkers at Sharples Dining Hall. See the Dining website for additional services - catering,
cakes, barbeques and meals to go or ask a staff member.
Students eating in all college dining locations must present their college picture identification card for meal credit or points. These policies are in effect to protect each student's personal meal plan account.

### 6.2.4 Parking

Parking is very limited on Swarthmore's campus. Students should not plan on being approved for parking for more than one year during their time at Swarthmore. Students must have the permission of the Car Authorization Committee to park on campus and should apply in the spring term for the following academic year. Students who live offcampus in the Swarthmore Borough can secure street parking through Borough Hall, and are not generally eligible for campus parking spots. Firstyear students are not permitted to bring cars to campus.

### 6.3 Health

### 6.3.1 Worth Health Center (WHC)

The WHC services are available 24 hours a day, to consult with students either in person or over the phone, 7 days a week when the College is in session. The center, a gift of the Worth family in memory of William Penn Worth and Caroline Hallowell, houses the Health Service's outpatient treatment facilities, offices of the Counseling and Psychological Services (CAPS) staff, and rooms for students who require non-hospital level infirmary care.

### 6.3.2 Student Health Services

The WHC team includes nurses, nurse practitioners, a student wellness coordinator, a nutritionist, alcohol and drug counselor, violence prevention educator and advocate, internists, and an adolescent medicine physician. The physicians are contracted through Crozer-Chester Medical Center (CCMC). The WHC staff members are willing to coordinate care with personal health care providers, when given permission by the student. In addition, if a student is admitted to the CCMC, WHC staff members and physicians are willing to coordinate care with the hospital providers.
Students may make appointments with health care providers at scheduled times during the week. When school is in session, a registered nurse will interview and evaluate the health needs of the sick student. Through this easy access to care students are given important health information, scheduled to see a health care provider or treated and released based on the level of illness or injury. WHC maintains a small dispensary of commonly used prescription medications. Students who need prescription medications may purchase them through their insurance with a pharmacy or through WHC at a reduced rate. WHC has
arranged delivery services from a local pharmacy for students who are unable to access them otherwise. Similarly, laboratory services are provided at low cost or billed through the student's insurance.
We respect a student's right to confidentiality, do not share personal information about a student but encourage a student to speak with parents when the student's care becomes more complicated.
In supporting the College's mission, the WHC is highly committed to providing comprehensive and clinically exceptional care to students. We invite student and parent feedback as part of our review and assessment processes.
For more detailed information and forms, especially those for new students, visit www.swarthmore.edu/health.

### 6.3.3 Counseling and Psychological Services (CAPS)

Services for students include counseling and psychotherapy, after-hours emergency-on-call availability, consultation regarding the use of psychiatric drugs in conjunction with ongoing psychotherapy, psychological testing, and educational talks and workshops. Counseling and Psychological Services (CAPS) participates in training resident assistants and student academic mentors as well as other student support groups and provides consultation to staff, faculty, and parents.
CAPS is staffed by a diverse group of psychological, social work, and psychiatric professionals. The director and staff collectively provide regular appointment times Monday through Friday. Students may be referred to outside mental health practitioners at their request or when long-term or highly specialized services are needed. CAPS main office is located in the Worth Health Center, North Wing.
Treatment at CAPS is conducted within a policy of strict confidentiality. Where there may be a significant question of imminent threat to someone's life or safety, CAPS reserves the right to break confidentiality in order to ensure safety. Requests for service may be made in person or by phone (x8059) between 8:30 a.m. and 4:30 p.m., Monday through Friday.
For more detailed information about CAPS, visit the website at www.swarthmore.edu/caps.xml.

### 6.3.4 Health Insurance

Students may consult the medical facilities of the College when ill or injured in athletic activities or otherwise, free of charge. The College cannot assume financial responsibility for medical, surgical, or psychological expenses incurred when seeking or referred for care elsewhere. Students and their families are responsible for medical expenses incurred while students are enrolled at the College including medication costs, vaccine costs and lab fees.

Students who have no insurance or inadequate insurance coverage must enroll in the College health plan offered to all students. If your insurance status changes, notify student health services immediately. Enrollment to the College health plan must be done within 31 days of the loss of other coverage. Students receiving financial aid may have a portion of the premium cost defrayed. The College provides supplemental health insurance for students who are actively participating in intercollegiate and club sports. For further information, please consult the Medical Administrator/Insurance Coordinator (health@swarthmore.edu). All athletes with questions related to sports injuries should contact Marie Mancini (mmancin1@swarthmore.edu).

### 6.4 Campus Safety

The Public Safety Department office is located in the Benjamin West House. The department provides round-the-clock uniformed patrol of the campus buildings and grounds by professionally trained patrol officers who can assist students in a variety of ways from emergency response to general advice on crime prevention. Students are encouraged to call the department at 610-328-8281 any time they feel Public Safety can be of assistance. All emergencies should be reported by contacting the department's emergency telephone line 610-328-8333. Any crime or suspected crime should be reported immediately to the Public Safety Department.
Swarthmore College's Annual Crime and Fire Safety Report is written to comply with the (Pa.) College and University Security Information Act: 24 P.S., Sec. 2502-3©, the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, and the Campus Fire Safety Right to Know Act. This annual report includes statistics for the previous 3 years concerning reported crimes that occurred on campus, in certain off-campus buildings owned or controlled by Swarthmore College, and on public property within or immediately adjacent to and accessible from the campus. The report also includes institutional policies concerning campus security, such as policies concerning alcohol and drug use, crime prevention, the reporting of crimes, sexual assault, and other matters. The College's Fire Safety Report contains a variety of fire safety related information in addition to campus fire statistics for the most recent three calendar years. To obtain a full copy of this document, visit www.swarthmore.edu/public-safety/clery-crime-statistics.xml.

### 6.5 Cocurricular Opportunities

### 6.5.1 Student Government

The Student Council is the chief body of student government and exists to serve and represent the students of Swarthmore College. Its 11 members
are elected semiannually. The powers and responsibilities of the Student Council are (1) the administration of the Student Activities Account;
(2) the appointment of students to those committees within the College community upon which student representatives are to serve; (3) the oversight of those students of those committees; (4) the administration of student organizations; (5) the operation of just elections; (6) the execution of referendums; (7) the representation of the student body to the faculty, staff, and administration, and to outside groups, as deemed appropriate; and (8) the formulation of rules needed to exercise these powers and to fulfill these responsibilities. The Student Council provides a forum for student opinion and is willing to hear and, when judged appropriate, act upon the ideas, grievances, or proposals of any Swarthmore student.
The Student Budget Committee allocates and administers the Student Activity Fund.
The Social Affairs Committee allocates funds to all campus events, maintains a balanced social calendar, and is responsible for organizing formals and various other activities that are designed to appeal to a variety of interests and are open to all students free of charge.
Service on College Committees is determined by the Appointments Committee of Student Council that selects qualified student representatives.

### 6.5.2 The Arts

Creative arts activities take place in conjunction with the departments of art, English, music and dance, and theater. There are also many student groups that organize creative activities.
Professional performers and artists are brought to campus regularly, both to perform/exhibit and to offer master classes. Campus facilities include practice and performance spaces available for student use.

### 6.5.3 Athletics/Physical Activities

Swarthmore's athletic program is varied, offering every student the opportunity to participate in a wide range of sports, including intercollegiate, club, and intramural teams.

### 6.5.4 Publications and Media

The Phoenix, the weekly student newspaper; the Halcyon, the College yearbook; The Daily Gazette, a Web based news service; and WSRN, the campus radio station, are completely studentrun organizations. Lodge 6 is a media incubator for journalism. The campus New Media Center supports student initiatives in video and web formats. Several other student publications include literary magazines and newsletters. For more information, contact the student publications coordinator.

### 6.5.5 Service and Activism

Service and activism activities are an integral part of the lives of many students, faculty, and staff
members. The Lang Center for Civic and Social Responsibility (see 6.6.5) coordinates and supports many of these endeavors, and many student groups choose paths that engage issues and communities in multiple ways.

### 6.5.6 Student Organizations

Students are encouraged to get involved in extracurricular activities at Swarthmore. More than 100 clubs and organizations span a broad range of interests such as community service; athletics; political action; and religious, cultural, and social activities. If there isn't a club or organization that meets a student's interest, he or she may form one with the guidance of Student Council.

### 6.6 Student Centers

6.6.1 Black Cultural Center

The Black Cultural Center (BCC), located in the Caroline Hadley Robinson House, provides a library, classroom, computer room, TV lounge, kitchen, all-purpose room, a living room/gallery, two study rooms, and administrative offices. The BCC offers programming, activities, and resources designed to stimulate and sustain the cultural, intellectual and social growth of Swarthmore's black students, their organizations and community. Further, the BCC functions as a catalyst for change and support to the College's effort to achieve pluralism. The BCC's programs are open to all members of the College community. The BCC is guided by the assistant dean, with the assistance of a committee of black students, faculty, and administrators.

### 6.6.2 Greek Life

There are currently two fraternities and one sorority at Swarthmore: Delta Upsilon and Theta, both affiliated with a national organizations, and Phi Omicron Psi, a local association. Although they receive no College or student activity funds, Greek life organizations supplement social life. They rent lodges on campus but have no residential or eating facilities. In recent years, about 6 percent of male students have decided to affiliate with one of the fraternities. The sorority was founded in fall of 2013.

### 6.6.3 Intercultural Center

The Intercultural Center (IC) provides programs, advocacy, and support for Asian/Pacific Islander American, Latino@, multiracial, Native American, LGBTQIA (lesbian, gay, bi/pansexual, trans*, queer/questioning, intersex, and asexual), lowincome, international, and first-generation college students at Swarthmore College. In addition, the IC promotes systemic change toward intersectional perspectives across the institution and fosters collaboration and coalition building among communities both within and outside the IC and the College. Resources and programs include
faculty-student-staff events, lectures, concerts, films, poetry slams, workshops and dialogues that explore race, class, gender, sexuality, citizenship, intersectional identities, and equity with a particular emphasis on social justice education and leadership. More information is available at www.swarthmore.edu/ic.

### 6.6.4 Interfaith Center

Religious advisers are located in the Interfaith Center in Bond Hall and currently consist of Jewish, Catholic, and Protestant professionals. The advisers and the Interfaith Center provide members of the Swarthmore community opportunities and resources, in an atmosphere free from the dynamics of persuasion, in which they can explore a variety of spiritual, ethical, and moral meanings; pursue religious and cultural identities; and engage in interfaith education and dialogue. The center comprises offices, a large common worship room, and a private meditation room.
Student groups of many faiths also exist for the purpose of studying religious texts, participating in community service projects, and exploring common concerns of religious faith, spirituality, and culture.
Various services are available on campus, and area religious communities welcome Swarthmore students.

### 6.6.5 Eugene M. Lang Center for Civic and Social Responsibility

The Lang Center, located at 3-5 Whittier Place, is a hub for activities that support Swarthmore's mission to "help students realize their fullest intellectual and personal potential combined with a deep sense of ethical and social concern." The Lang Center supports the College's commitment to social responsibility in the context of academic excellence by providing administrative, financial, logistical, and programming support for a wide range of opportunities to help make connections between the College and communities beyond, both local and global. Its staff works with individual students, student groups, faculty, staff, and community partners. The Lang Center offers extensive information about opportunities for service, advocacy, activism, social entrepreneurship, policy, and research. Its key programs are: Community-Based Learning-The Lang Center supports faculty and encourages students to take courses that connect academic content to communities outside the College. Students may, for examples, spend time outside the classroom working with an organization, or may devote assignments to research need by a community group.
The Eugene M. Lang Visiting Professorship for Issues of Social Change—The professorship was endowed in 1981 by Eugene M. Lang '38 to bring
to the College an outstanding social scientist, political leader, or other suitably qualified person who has achieved professional or occupational prominence for sustained engagement with issues, causes, and programs directly concerned with social justice, civil liberties, human rights, or democracy.
Lang Opportunity Scholarship Program-Up to six students during the first semester of their sophomore year are selected to participate in this program, which includes a paid summer internship, the opportunity to apply for a substantial grant that supports the implementation of a major project with significant social value, and other benefits. Lang Center staff work closely with Lang Scholars as they develop and carry out their projects.
Student-led service and activist groups-Many student-led groups use Lang Center facilities and also receive guidance from Lang Center staff.
These groups include Blueprints Mentors; Chester Youth Court Volunteers; College Access Center of Delaware County; Chester Garden Youth
Collaborative; Dare to Soar; Education for Empowerment; Green Advisers; Learning 4 Life; Let's Get Ready; Peace Innovation Lab; PowerPush; Saturdays of Service; Taller de Paz (Workshops for Peace); Volunteer Income Tax Assistance; Trash 2 Treasure; War News Radio; and Student Run Emergency Housing Unit of Philadelphia.
Summer Social Action Awards (S2A2)—For fulltime, 10-week summer internships with non-profit organizations, grassroots advocacy groups, and public service agencies, these grants provide living expenses and summer earnings. Lang Center staff and Career Services provide guidance as students find internship placement sites that are congruent with their interests.
The Swarthmore Foundation-A small philanthropic body formed by Swarthmore College in 1987 with endowments from alumni, foundations, and others, the Swarthmore Foundation supports students, staff, and faculty involvement in community service and social action. Applications for grants are accepted twice during the academic year.
The Project Pericles Fund of Swarthmore College-Eugene M. Lang '38 and the Board of Managers of Swarthmore College created the Project Pericles Fund of Swarthmore College in 2005 to support groups of Swarthmore students who propose and implement social and civic action projects that are substantial in scope.

### 6.6.6 Tarble Social Center

The Tarble Social Center in Clothier Memorial
Hall was provided through the generosity of Newton E. Tarble of the Class of 1913 and his
widow, Louise A. Tarble. The facility includes a snack bar, a lounge space, the College Bookstore, Paces (a student-run café and party space), an allcampus space, meeting rooms, the Swarthmore College Computer Society media lounge and the offices of the Social Affairs Committee (SAC), Debate Society, and Rattech.

### 6.6.7 Women's Resource Center

The Women's Resource Center (WRC) is located in a lodge on the west side of campus; it is open to all women on campus. It is organized and run by a student board of directors to bring together women of the community with multiple interests and concerns. The resources of the center include a library, kitchen, various meeting spaces, computer, and phone. The WRC also sponsors events throughout the year that are open to any member of the College community.

### 6.7 Student Advising

### 6.7.1 Class Deans

The Office of the Dean for Academic Affairs oversees the advising system. The deans are available to all students for advice on any academic or personal matter. A dean is assigned to each class in order to specialize in advising matters that are particular to that year. Students, however, may approach any dean for advising, support, or to learn about College resources.

### 6.7.2 Academic Advising

Each first-year student is assigned to a faculty member or administrator who serves as the student's academic adviser. Once students are accepted by an academic department for their major, normally at the end of the sophomore year, the advising responsibility shifts to the chair, or chair's designate, of that department. Requests for a change of adviser in the first two years will be freely granted subject only to availability and equity in the number of advisees assigned to individual advisers.

### 6.7.3 Academic Support

Academic support can be accessed through the Office of the Associate Dean for Academic Affairs, through the Office of Student Disability Services, through academic departments (peer mentors, clinics, and review sessions), through the Writing Center (Writing Associates), and in dormitories (Student Academic Mentors). Tutors can be arranged through departments or through the Office of the Associate Dean for Academic Affairs. No fees are required for any of these services.
Student Academic Mentors (SAMs) are upper class students specially selected and trained to work with students on the development of skills necessary for academic success including time management, organization, study strategies and reading techniques. All residence halls with first-
year students are assigned a SAM to serve as a resource for its residents. SAMs also hold weekly office hours at the McCabe and Cornell Libraries, and at the Black Cultural Center. They sponsor "Drop-In Hours" at locations throughout campus during advising and registration periods.
Writing Associates (WAs) are students who have been specially trained to assist their peers with all stages of the writing process. WAs are assigned on a regular basis to selected courses, and they are located in the Writing Center in Trotter Hall. All students have access to the Writing Center as needed and can receive help on a drop-in basis.

### 6.7.4 Health Sciences Office (Premed

 Advising)The staff of the Health Sciences Office is available to students and alumni considering a career in medicine, dentistry, veterinary medicine or other health professions. The Health Sciences Adviser counsels students throughout their undergraduate years and beyond, and assists them in the process of application for graduate training.
Swarthmore graduates are represented at 59 medical schools in 23 states in the U.S., including such top schools as Harvard, Yale, Columbia, Penn, Stanford, Johns Hopkins, and many fine state universities. In addition, Swarthmore graduates are currently attending The University of California-Davis veterinary school and University of Medicine and Dentistry of New Jersey dental school. The College's acceptance rate is substantially higher than the national acceptance rate.
While many students planning a medical career decide to major in biology or chemistry, others elect to concentrate in one of the humanities or social sciences, while structuring their overall program to fulfill medical school requirements. The following courses are part of a typical program:
Cellular and Molecular Biology
Organismal and Population Biology
General Chemistry
Organic Chemistry I and II
Biological Chemistry
English
Calculus I and Statistical Methods
General Physics I and II
Introductory Psychology and Sociology
As veterinary and dental schools have more variable requirements, in addition to those listed above, prevet and predental students should meet with Gigi Simeone, the Health Sciences Adviser, to plan their programs.

### 6.7.5 Prelaw Advising

Swarthmore's academic rigor provides an excellent preparation for students considering a career in law. Swarthmore graduates are
represented at law schools across the U.S., including such top schools as Harvard, Columbia, Stanford, and Yale.
Swarthmore students interested in law are encouraged to take a varied and challenging academic program, which will develop their analytical, reading, writing and speaking skills. There is no prelaw major or prescribed prelaw coursework. Students have applied successfully to law school with majors and minors in the humanities, social sciences, and natural sciences. Gigi Simeone, the Prelaw Adviser, is available to any student or alum considering a career in law. The Prelaw Office counsels students throughout their undergraduate years and beyond, and assists them in the process of application to law school. It offers a series of meetings with law school admissions deans each fall. The office also prepares dean's certifications for students applying to law schools that require it. More information is available at www.swarthmore.edu/prelaw.

### 6.7.6 Career Services

Career Services offers individualized attention to students who are seeking career direction, considering majors, exploring internships, job searching or applying for graduate school. Career Counselors and Career Peer Advisers help students develop knowledge of themselves and their life options, advance their career planning and decision-making abilities, and develop skills related to their internship/job search and graduate school admission. Individual counseling and group workshops encourage students to expand their career options through exploration of their values, skills, interests, abilities, and experiences. A noncredit Career Development course is available for all students, regardless of their academic discipline or year.
Career programming includes alumni career panels and dinners, presentations, workshops, employer information sessions, an etiquette dinner, career fairs and interview days. The office cooperates with Alumni Relations and the Alumni Council to help students connect with a wide network of potential mentors and the offices co-sponsor the annual Lax Conference on Entrepreneurship.
Exploration of career options is encouraged through internships, summer jobs, and alumnihosted externships during winter break. Students may receive assistance in researching, locating, and applying for internships, employment, and graduate school admission and receive advice in how to gain the most they can from these experiences.
Career Services hosts on-campus recruiting by representatives from for-profit, government and nonprofit organizations. The Career Services website
(www.swarthmore.edu/careerservices.xml) provides access to comprehensive online databases of internship and job listings as well as an events
calendar to make information about activities and programs available to students. Recommendation files are compiled for interested students and alumni to be sent to prospective employers and graduate admissions committees.

### 6.8 Student Conduct System

Swarthmore places great value on freedom of expression, but it also recognizes the responsibility to protect the values and structures of an academic community. It is important, therefore, that students assume responsibility for helping to sustain an educational and social community where the rights of all are respected. This includes conforming their behavior to standards of conduct that are designed to protect the health, safety, dignity, and rights of all. Community members also have a responsibility to protect the possessions, property, and integrity of the institution as well as of individuals. The aim of the College's Student Code of Conduct is to balance all these rights, responsibilities, and community values fairly. The student conduct system is overseen by the dean of the senior class, and all questions should be directed to this office.
The formal student conduct system at Swarthmore College has two main components: (1) Minor Misconduct: Allegation(s) in which possible sanctions do not include suspension or expulsion from the College if the student were found responsible and are typically conducted by the dean of the senior class; and (2) Major Misconduct: Allegation(s) subject to College policy in which possible sanctions could result in suspension or expulsion from the College if the student were found responsible, and are typically addressed by the College Judiciary Committee (CJC) or an Administrative hearing with the dean of the senior class, including all allegations of academic misconduct. The CJC is composed of faculty, students, and administrators who have undergone training for their role.
All allegations of sexual and gender based harassment, sexual misconduct, sexual violence, stalking, and intimate-partner violence are addressed through the College's Sexual Assault and Harassment Policy.
Violation of the laws of any jurisdiction, whether local, state, federal, or (when studying abroad) foreign, may subject a student to College disciplinary action. A pending appeal of a conviction shall not affect the application of this rule.

## 7 Educational Program

### 7.1 General Statement

Swarthmore College offers the degree of bachelor of arts and the degree of bachelor of science. The latter is given only to students who major in engineering. Four years of study are normally required for a bachelor's degree (see section 9.1),
but variation in this term, particularly as a result of Advanced Placement (AP) credit, is possible (see section 3.5).
The selection of a program will depend on the student's interests and vocational plans. The primary purpose of a liberal arts education, however, is not merely to provide the best foundation for one's future vocation. The purpose of a liberal arts education is to help students fulfill their responsibilities as citizens and grow into cultivated and versatile individuals. A liberal education is concerned with the development of moral, spiritual, and aesthetic values as well as analytical abilities. Furthermore, just as a liberal education is concerned with the cultural inheritance of the past, so, too, it is intended to develop citizens who will guide societies on a sustainable course where future culture will not be compromised in the development of the present. Intellectually, it aims to enhance resourcefulness, serious curiosity, open-mindedness, perspective, logical coherence, and insight.
During the first half of their college program, all students are expected to satisfy most, if not all, of the distribution requirements, to choose their major and minor subjects, and to prepare for advanced work in these subjects by taking certain prerequisites. The normal program consists of four courses or their equivalent each semester, chosen by the student in consultation with his or her faculty adviser.
All students must fulfill the requirements for the major. Before the end of the senior year, students are required to pass a comprehensive examination or its equivalent, given by the major department.
The program for engineering students follows a similar basic plan, with certain variations explained in the section on engineering. Courses outside the technical fields are distributed over all 4 years.
For honors candidates, courses and seminars taken as preparation for external evaluation occupy approximately one-half of the student's work during the last 2 years. In addition to work taken as a part of the Honors Program, the students take other courses that provide opportunities for further exploration. During the senior year, many departments offer a specially designed senior honors study for honors majors and minors to encourage enhancement and integration of the honors preparations. At the close of the senior year, candidates for honors will be evaluated by visiting examiners.
The course advisers of first-year and sophomore students normally are members of the faculty
appointed by the dean. For juniors and seniors, the advisers are the chairs of their major departments or their representatives.
Although faculty advisers assist students in preparing their academic programs, students are individually responsible for planning and adhering to programs and for the completion of graduation requirements. Faculty advisers, department chairs, other faculty members, the deans, and the registrar are available for information and advice.

### 7.2 Program for the First and Second Years

The major goals of the first 2 years of a Swarthmore education are to introduce students to a broad range of intellectual pursuits, to equip them with the analytic and expressive skills required to engage in those pursuits, and to foster a critical stance toward learning and knowing. All students must fulfill the requirements normally intended for the first 2 years of study, although engineering majors may spread some requirements over 4 years. Students entering Swarthmore as transfer students normally fulfill these requirements by a combination of work done before matriculation at Swarthmore and work done here, according to the rules detailed below
To meet the distribution requirements, a student must earn degree-applicable credit in the following areas:

1. Complete at least three courses in each of the three divisions of the College (listed). In each division, the three courses must be at least 1 credit each and may include up to 1 AP credit or credit awarded for work done elsewhere.
2. Complete at least two courses in each division at Swarthmore; these courses must be at least 1 credit each.
3. Complete at least two courses in each division in different departmental subjects; these courses must be at least 1 credit each and may include AP credit or credit awarded for work done elsewhere.
4. Complete at least three Writing courses or Writing seminars, and those three must include work in at least two divisions; students are advised to complete two Writing courses in the first 2 years.
5. Complete a natural sciences and engineering practicum.
Courses that have been excluded from counting toward the degree do not count toward the distribution requirements.
6. Take courses in a variety of departments, keeping in mind that before graduation, 20 credits outside of one major subject must be completed.
Distribution Requirement Divisions: For purposes of the distribution requirements, the three divisions of the College are as follows:

- Humanities: art (art history and studio art), classics (literature), English
literature, film and media studies, modern languages and literatures, music and dance, philosophy, religion, and theater.
- Natural sciences and engineering: biology, chemistry and biochemistry, computer science, engineering, mathematics and statistics, physics and astronomy, and psychology courses that qualify for the natural sciences and engineering practicum.
- Social sciences: classics (ancient history), economics, education, history, linguistics, political science, psychology (other than natural sciences and engineering practicum courses), and sociology and anthropology.
A few courses do not satisfy the divisional distribution requirement. These are identified as such in the catalog or the official schedule of courses.
Writing courses: In addition to addressing fieldspecific substance, writing courses will focus on the development of the students' expository prose to ensure they can discover, reflect upon, organize, and communicate their knowledge effectively in written form.
NSEP science laboratory requirement: Natural sciences and engineering practicums (NSEPs) have at least 18 hours per semester of scheduled meeting time for laboratory, separate from the scheduled lecture hours. How the laboratory hours are scheduled varies with the nature of the course and the types of laboratories involved. Such meetings may entail weekly or biweekly 3-hour sessions in a laboratory, several all-day field trips, or several observation trips.
Cross-listed courses: Courses that are cross-listed between two departments in different divisions may, with the permission of the instructors, departments, and divisions involved, fulfill the divisional distribution requirement in one of the following ways: (1) in only one of the divisions so identified but not in the other; (2) in either division (but not both), depending on the departmental listing of the course on the academic record; (3) in neither of the divisions. In certain cases, the course may fulfill the distribution requirement according to the nature of the work done in the course by the individual student (e.g., a long paper in one of the departmental disciplines). The division of such courses is normally indicated in the catalog description for each course. When counting credits to determine a student's fulfillment of the 20-course-credit rule, cross-listed courses count (only) in the subject in which they are listed on the student record. Changing the subject listing of a cross-listed course on the student record can be arranged, depending on permissions, during or sometimes after the course; there is a form for the purpose in the Registrar's Office.

First-year seminars: All students are encouraged to take a first-year seminar during the fall or spring of their first year. First-year seminars are offered across the curriculum and are designed to introduce students to a field of study and to engage them in learning skills that will support them throughout their college experience. Each firstyear seminar is limited to 12 first-year students. Many (but not all) first-year seminars count as the prerequisite to further work in the department in which they are offered.
Foreign language: It is most desirable that students include in their programs some work in a foreign language, beyond the basic language requirement (see section 9.1).
Mathematics: A student who intends to major in one of the natural sciences, mathematics, or engineering should take an appropriate mathematics course in the first year. Students intending to major in one of the social sciences should be aware of the increasing importance of mathematical background for these subjects.
Physical education: Students are encouraged to enjoy the instructional and recreational opportunities offered by the department throughout their college careers. As a requirement for graduation, all students not excused for medical reasons are required to complete 4 units of physical education by the end of their sophomore year. In addition, all students must pass a survival swimming test or complete a unit of swimming instruction. Most physical education courses are offered for a half a semester and earn 1 unit toward the 4 units required for graduation. A complete list of physical education opportunities including how many units each earns is available from the Physical Education and Athletics Office. More information can be found in the Physical Education and Athletics section. To ensure that all students complete the PE requirement and swim test by the end of the second year, students who fail to do so will not be eligible to participate in the spring housing lottery.
Transfer students: Students who enter Swarthmore as transfer students must fulfill Swarthmore's requirements for the first 2 years, including the natural sciences and engineering practicum. Transfer courses can be applied toward these requirements if specifically approved by the registrar. Transfer students who enter Swarthmore with 8 credits of college work are exempted from one of the three required writing courses and have the credits-at-Swarthmore requirement reduced from 2 in each division to 1 in each division. Transfer students who enter Swarthmore with, at most, four semesters remaining to complete their degree are exempted from two of the three required writing courses and are exempted from the requirement that in each division 2 credits be taken at Swarthmore. Transfer students can either apply transfer PE units toward the 4-unit physical education requirement or opt for a reduction in the

## 7 Educational Program

PE requirement based on the student's transfer status, but transfer students cannot both transfer PE units and receive a reduction in the requirement. The optional reduction in PE units depends on the transfer class of the student. Transfer students who enter Swarthmore as sophomores can opt to complete 3 units of physical education and pass a survival swim test (a reduction of 1 PE unit). Transfer students who enter Swarthmore as juniors can opt to complete 2 units of physical education and pass a survival swim test (a reduction of 2 PE units).
Major application-the Sophomore Plan: Early in the sophomore year, each student should identify one or two subjects as possible majors, paying particular attention to departmental requirements and recommendations. In the spring of the sophomore year, each student will, with the guidance of his or her adviser, prepare a reasoned plan of study for the last 2 years. Sophomores who wish to link their interest in social service/social action to their plan of study are also encouraged to take advantage of the advising offered by the staff at the Lang Center for Civic and Social Responsibility. The Sophomore Plan of study will be submitted to the chair of the student's proposed major department as a part of the application for a major. Acceptance will be based on the student's record and an estimate of his or her capacities in the designated major. Students who fail to secure approval of a major may be required to withdraw from the College.

### 7.3 Programs for Juniors and Seniors

The major goals of the last two years of a Swarthmore education are to engage students with a chosen field of inquiry and to assist them in assuming an independent role in creating and synthesizing knowledge within it. The breadth of exposure, acquisition of skills, and development of a critical stance during the first two years prepare students to pursue these goals. With the choice of a major and, perhaps, candidacy for honors, the focus shifts from scope to depth. Students become involved for the second two years with a discrete field of inquiry and demonstrate their command of that field through the completion of courses within the major and courses taken outside the major that expand and deepen the student's perspective on the major.
Before graduation, students are required to complete at least 20 credits outside of one major subject.

### 7.4 Majors and Minors

All students are required to include sufficient work in a single department or program designated as a major. To complete a departmental major, a student must be accepted as a major; must complete eight courses (or more, depending on the
department); must pass the department’s comprehensive requirement; and must fulfill other specific departmental requirements. Detailed requirements for acceptance to departmental majors and for completion of them are specified in this catalog under the respective departmental listings and are designed to ensure a comprehensive acquaintance with the field. A student must accumulate 20 course credits outside one major, but there is no other limit on the number of courses that a student may take in his or her major.
Completing a second major or one or two minors is optional, as is choosing to do an Honors Program. Students are limited in the number of majors and/or minors they may earn. If they have only one major, they may have as many as two minors. Students who choose an honors major plus honors minor may have an additional course minor outside the Honors Program. If students have two majors, they may not have a minor, except in one circumstance: A student who elects honors, designating an honors major and minor, may have a second major outside of honors if that second major includes the same subject as the honors minor. The completion of two majors must be approved by both departments. Triple majoring is not allowed.
Most departments and programs offer course minors. Those departments or programs that do not offer a course minor are comparative literature, economics, political science, sociology and anthropology, and studio art. (These departments or programs do offer honors minors.) Minors will include at least 5 credits.
Double counting in majors and minors: If a student has two majors and one is interdisciplinary, no more than 2 credits may be double counted with the student's other major. However, the double-counting limit is not applicable to courses that students are required by their departmental major to take in other departments. Of the 5 credits required for a minor, 4 may not be double counted with the student's major or other minor. The double-counting prohibition applies to any comparison of two given programs of study (not three taken together, even if the student has three programs). This means that a student who has a major in medieval studies, for example, and minors in both English literature and gender and sexuality studies would need four courses in English literature that are not part of the medieval studies major and four courses in gender and sexuality studies that are not part of the medieval studies major. In addition, each minor must have four courses that are not part of the other minor. Special minors are not permitted.
Exceptions to the double-counting prohibition:

1. The double-counting prohibition is not applicable to courses that students are required by their majors or minors to take in other departments. For example, mathematics courses

## 7 Educational Program

required for an engineering major are not automatically excluded from counting toward a minor defined by the Mathematics and Statistics Department.
2. For an honors major who is also a double major, the double-counting prohibition does not apply to the relationship between the honors minor and the second major because these will always be or include the same field.
Advising in the major: During the junior and senior years, students are advised by the chair of the major department (or a member of the department designated by the chair) whose approval must be secured for the choice of courses each semester.
The deadline for seniors to propose any changes to their plan for major(s) or minor(s) is the third week of the spring semester of the senior year. Proposed changes are subject to departmental approval. Majors or minors may not be applied for or approved after graduation.

### 7.4.1 Special majors

Individualized and regularized special majors are available. With permission of the departments concerned, it is possible for a student to plan an individualized special major that includes closely related work in one or more departments. In some areas, such as biochemistry and neuroscience, in which regularized special majors are done frequently, the departments and programs involved provide recommended programs. These regularized special majors are described in the relevant department sections of the catalog or in material available from department chairs. A special major is expected to be integrated in the sense that it specifies a field of learning (not necessarily conventional) or topic or problems for sustained inquiry that crosses departmental boundaries, or it may be treated as a subfield within the normal departmental major. Special majors consist of at least 10 credits and normally of no more than 12 credits. Students with special majors normally complete a minimum of six courses in the primary department or program, omitting some of the breadth requirements of the major field. However, course requirements central to systematic understanding of the major field may not be waived. Students with special majors must complete the major comprehensive requirement, which may consist of a thesis or other written research projects designed to integrate the work across departmental boundaries, or a comprehensive examination. By extension, special majors may be formulated as joint majors between two departments, normally with at least 5 credits in each department and 11 in both departments. The departments involved collaborate in advising and in the comprehensive examination. The Registrar's Office website has the required application form and more information for special
majors. Students are not allowed to pursue more than one individualized special major.

### 7.5 Honors Program

The Honors Program, initiated in 1922 by President Frank Aydelotte, is a distinctive part of Swarthmore's educational life.
The Honors Program has as its main ingredients student independence and responsibility in shaping the educational experience; collegial relationships between students and faculty; peer learning; opportunity for reflection on, and integration of, specific preparations; and evaluation by external examiners. Honors work may be carried out in the full range of curricular options, including studio and performing arts, study abroad, and community-based learning.
Students and their professors work in collegial fashion as honors candidates prepare for evaluation by external examiners from other academic institutions and the professional world. Although Swarthmore faculty members grade most of the specific preparations, the awarding of honorifics on a student's diploma is based solely on the evaluation of the external examiners.
Preparations for honors are defined by each department or program and include seminars, theses, independent projects in research as well as in studio and performing arts and specially designated pairs of courses. In addition, many departments offer their own format for senior honors study, designed to enhance and, where appropriate, integrate the preparations in both major and minor.
Each honors candidate's program will include three preparations for external examination in a major and one in a minor or four preparations in a special or interdisciplinary major. By doing honors, students offering three preparations in a major or four preparations in a special or interdisciplinary major normally fulfill the comprehensive graduation requirement for majors in those fields.
Honors students who wish to complete a second major must pursue that field of study through the Course Program, and it must relate to the student's honors minor field of study. Normally, the student must complete the requirements for the Honors minor, as well as the course major in the department. If an Honors student pursues an honors special major, any second major must be taken in the Course Program, and must be either a regular major or regularized special major. In such cases, the student's academic program is subject to the overlap constraints for majoring.
Honors Program preparations for both majors and minors will be defined by each department, program, and interdisciplinary major that sponsors a major. In addition, minors may be defined by any department or program.

## 7 Educational Program

Honors special majors who design their own programs, not those in College-sponsored programs such as biochemistry, will be required to include four related preparations in the major from at least two departments or academic programs. Honors special major programs do not include a separate minor. Honors special majors must either (1) write a thesis drawing on their crossdisciplinary work - the thesis will be examined by examiners in different fields or (2) have a panel oral examination that presents the opportunity for cross-disciplinary discussion. Honors special majors will follow the Senior Honors Study (SHS) activity and portfolio procedures of the various departments whose offerings they use as preparations in their programs. Individualized honors special major programs require the approval of all departments involved in the program and of the honors coordinator.
All preparations will be graded by Swarthmore instructors with the exception of theses and other original work. Grades for theses and other similar projects will be given by external examiners.
Except in the case of theses or other original work, modes of assessment by the external examiners will include written examinations and/or other written assignments completed in the spring of the senior year. In addition, during honors week at the end of the senior year, every honors candidate will meet on campus with external evaluators for an oral examination of each preparation. Specific formats for preparations and for SHS are available in each department office.
Students will normally include their intention to prepare for honors in their "Plan of Study for the Last 2 Years," written in the spring of their sophomore year. They must also submit a formal application for a specific program of honors preparation to the Registrar's Office. The registrar provides a form for this purpose. Departments, programs, and concentrations will make decisions about acceptance of honors programs at the end of the sophomore year. Students will be accepted into honors with the proviso that their work continue to be of honors quality. Students may also apply to enter honors during their junior year. Any proposed changes to the Honors Program must be submitted for approval on a form for this purpose available from the registrar. The decision of the departments or interdisciplinary programs will depend on the proposed program of study and the quality of the student's previous work as indicated by grades received and on the student's apparent capacity for assuming the responsibility of honors candidacy. The major department or interdisciplinary program is responsible for the original plan of work and for keeping in touch with the candidate's progress from semester to semester. Normally, honors programs may not be changed after Dec. 1 of a student's senior year, depending on departmental policies. Students may not withdraw from honors after Dec. 1 of the
senior year except under extraordinary circumstances and with the permission of the major and minor departments and the Curriculum Committee. Further information about honors policies may be found in the Honors Handbook, which is available in the Registrar's Office.
At the end of the senior year, the decision of whether to award the degree with a level of honors is made by the visiting examiners. Upon their recommendation, successful candidates are awarded the bachelor's degree with honors, with high honors, or with highest honors.

### 7.6 Exceptions to the 4-Year Program

Although the normal period of uninterrupted work toward the bachelor of arts and bachelor of science degrees is 4 years, graduation in 3 years is freely permitted when a student can take advantage of Advanced Placement credits, perhaps combining them with extra work by special permission. In such cases, students may qualify for advanced standing-they may become juniors in their second year. To qualify for advanced standing, a student must (1) do satisfactory work in the first semester; (2) obtain 14 credits by the end of the first year; (3) intend to complete the degree requirements in 3 years; and (4) signify this intention when she or he applies for a major by completing a Sophomore Plan during the spring of the first year.
When circumstances warrant, a student may lengthen the continuous route to graduation to 5 years by carrying fewer courses than the norm of four, although College policy does not permit programs of fewer than 3 credits for degree candidates in their first eight semesters of enrollment. A course load lower than the norm may be appropriate for students who enter Swarthmore lacking some elements of the usual preparation for college, who have disabilities, or who wish to free time for activities relating to their curricular work that are not done for academic credit. Such 5-year programs are possible in music and studio arts for students who are taking instruction off campus or who wish to pursue studio or instrumental work without full credit but with instruction and critical supervision. However, such programs are possible only on application to, and selection by, the department concerned, which will look for exceptional accomplishment or promise. In all cases where it is proposed to reduce academic credit and lengthen the period before graduation, the College looks particularly to personal circumstances and to careful advising and necessarily charges the regular annual tuition (see the provisions for overloads section 4.1). Full-time leaves of absence for a semester or a year or more are freely permitted and in some cases encouraged, subject also to careful planning and academic advising. Information about work and internship
opportunities for those taking a leave is available through the Career Services Office.

### 7.6.1 Senior year rule

Normally the senior year rule is met by the last two semesters being done on the campus at Swarthmore, with the approved exception that seniors during the first semester of their senior year, who have obtained the approval of the chair(s) of their major department(s), may participate in the Swarthmore Semester/Year Abroad Program. Senior year rule compliance is calculated retrospectively with the last two fulltime semesters of degree work, regardless if the semesters are separated in time. If students have studied elsewhere in the time between their two senior semesters, no more than 2.0 Swarthmore credits for work done elsewhere (regardless of how many courses were taken during the intervening time) may be applied to the Swarthmore degree without being out of compliance with the senior year rule. There are two circumstances where a senior can use credit for work done elsewhere to complete the Swarthmore degree without re-enrolling at Swarthmore: (a) after the eighth semester if the major department confirms that the major is done or approves that the major can be completed remotely, or (b) after earning at least 30.0 credits toward the degree if the major department confirms that the major is done or approves that the major can be completed remotely. In either case, the senior year rule is fulfilled by the last two semesters done on the campus at Swarthmore (or with the first semester by approved study abroad), regardless of the number of subsequent credits to be earned.

### 7.7 Normal Course Load

The academic year at Swarthmore is 32 weeks long, during which time students are expected to complete 6 to 8 semester course credits of work. Normal progress toward the degree of bachelor of arts or bachelor of science is made by eight semesters' work of four course credits or the equivalent each semester, although the object of progress toward the degree is not the mere accumulation of 32 credits. Students may and frequently do vary this by programs of three or five courses, with special permission. College policy does not permit programs of fewer than 3 course credits within the normal eight-semester enrollment. Programs of more than 5 credits or fewer than 4 credits require special permission (see section 4.1 on tuition and section 8.3 on registration).
The definitions of upper-class levels are as follows: Students become sophomores when they have earned 6 to 8 semester course credits toward their degree. Students become juniors when they have earned 14 to 16 credits. Students become seniors when they have earned 22 to 24 credits.

Some offices on campus, such as student housing, may have additional requirements in their definitions of the student classes.

### 7.8 Formats of Instruction

Although classes and seminars are the normal curricular formats at Swarthmore, faculty regulations encourage other modes as well. These include various forms of individual study, studentrun courses, and a limited amount of "practical" or off-campus work.
The principal forms of individual work are attachments to courses, directed reading, and tutorials. The faculty regulation on attachments provides that a student may attach to an existing course, with the permission of the instructor, a project of additional reading, research, and writing. If this attachment is taken concurrently with the course, it is normally done for 0.5 credit. If it is taken in a later semester (preferably the semester immediately following), it may be done for either half or full credit. This kind of work can be done on either a small-group or individual basis. It is not possible in all courses, but it is in most, including some introductory courses. For first-year students and sophomores, it is a way of developing capacities for independent work. For honors candidates, it is an alternative to seminars as a preparation for papers. Students who decide before the middle of the semester to do a 0.5 -credit attachment may, with permission, withdraw from a regular course and carry 3.5 credits in that term to be balanced by 4.5 credits in another term. Students may do as many as two attachments each year.

### 7.8.1 Directed Reading and Independent Study

Directed reading and independent study are similar, but the faculty role in the former is more bibliographical than pedagogical, and, because they require somewhat less faculty time, opportunities for directed reading are more frequent in most departments than are opportunities for independent study. In both cases, substantial written work and/or written examinations are considered appropriate, and it is generally desirable that the work be more specialized or more sharply focused than is usually the case in courses or seminars. The work may range from a course of reading to a specific research project. Such work is available primarily to juniors and seniors in accordance with their curricular interests and as faculty time permits.

### 7.8.2 Student-Run Courses

The faculty regulation on student-run courses permits a group of students to propose a topic to an instructor for 0.5 or 1 credit and to run their own course with a reading list approved by the instructor and a final examination or equivalent administered by him or her but normally with no

## 7 Educational Program

further involvement of faculty. In organizing such a course, students obtain provisional approval and agreement to serve as course supervisor from a faculty member by Dec. 1 (for the spring semester) or May 1 (for the fall semester) on the basis of an initial memorandum emphasizing the principal subject matter to be studied, the questions to be asked about it, the methods of investigation, and provision of a preliminary bibliography. The course is then registered by its organizers with the provost, who has administrative supervision of such work and who may waive the foregoing deadlines to recognize problems in the organization of such courses. The course supervisor consults his or her department and, in the case of an interdepartmental course, any other department concerned, whose representatives together with the provost will decide whether to approve the course. The supervisor also reviews the course outline and bibliography and qualifications and general eligibility of students proposing to participate in the course. After a student-run course has been found acceptable by the appropriate department (or departments) and the provost, the course supervisor's final approval is due 10 days before the term begins, following which a revised reading list and class list are given to the librarian, and the course title and class list are filed with the registrar. At the end of the course, the supervisor evaluates and grades the students' work in the usual way or arranges for an outside examiner to do so.
Student-run courses may vary in format and content. In particular, they may be provisionally proposed for 0.5 credit to run in the first half of the semester, and at midterm, may be either concluded or, if the participants and course supervisor find the work profitable, continued for the balance of the term for full credit. Alternatively, student-run courses may be started after the beginning of the semester (up to midsemester) for 0.5 credit and then be continued, on the same basis, into the following term. Or they may be taken for 0.5 credit over a full term. The role of the course supervisor may go beyond planning and evaluation and extend to occasional or regular participation. The only essentials, and the purpose of the procedures, are sufficient planning and organization of the course to facilitate focus and penetration. The course planning and organization, both analytical and bibliographical, are also regarded as important ends in themselves, to be emphasized in the review of proposals before approval. Up to 4 of the 32 credits required for graduation may be taken in student-run courses. Many student-run courses are offered only on the credit/no-credit basis.
Finally, as to applied or practical work, the College may, under faculty regulations, grant up to 1 course credit for practical work, which may be done off campus when it can be shown to lend itself to intellectual analysis and is likely to
contribute to a student's progress in regular coursework. The work is subject to four conditions: (1) agreement of an instructor to supervise the project; (2) sponsorship by the instructor's department and, in the case of an interdisciplinary project, any other department concerned, whose representatives together with the provost will decide whether to grant permission for the applied or practical work before that work is undertaken; (3) a basis for the project in some prior coursework; and (4) normally, the examination of pertinent literature and production of a written report as parts of the project. This option is intended to apply to work in which direct experience of the off-campus world or responsible applications of academic learning or imaginative aspects of the practice of an art are the primary elements.
Because such work is likely to bear a loose relation to organized instruction and the regular curriculum, the College limits academic credit for it while recognizing its special importance for some students’ programs

### 7.9 Interdisciplinary Work

The requirements of the major typically leave room for significant flexibility in students’ programs, both within and outside the major. This may be used to pursue a variety of interests and to emphasize intellectual diversity. It may also be used for the practical integration of individual programs around interests or principles supplementing the major. The College offers interdepartmental majors in Asian studies, comparative literature, and medieval studies, and formal interdisciplinary minors in black studies, cognitive science, environmental studies, gender and sexuality studies, German studies, interpretation theory, Islamic studies, Latin American studies, peace and conflict studies, and through the 2016 graduating class, public policy The specific requirements for these programs are outlined in the relevant sections of the catalog.
It should be recognized that some departments are themselves interdisciplinary in nature and that a considerable number of courses are cross-listed between departments. Also, some courses each year are taught jointly by members of two or more departments, and departments commonly recommend or require supporting work for their majors in other departments. Many other opportunities exist informally (e.g., in African studies, in American studies, in religion and sociology and anthropology, and in chemical physics). Students are encouraged to seek the advice of faculty members on such possibilities with respect to their particular interests.

### 7.10 Guidelines on Scheduling Conflicts Between Academics and Athletics

The following guidelines (adopted by the faculty in May 2002) are affirmed to recognize both the primacy of the academic mission at Swarthmore and the importance of the intercollegiate Athletics Program for our students. The guidelines are meant to offer direction with an appropriate degree of flexibility. Where conflicts occur, students, the faculty, and coaches are encouraged to work out mutually acceptable solutions. Faculty members and coaches are also encouraged to communicate with one another about such conflicts. Note that the guidelines make a firm distinction between athletics practices and competitive contests.

1. Regular class attendance is expected of all students. Students who are participating in intercollegiate athletics should not miss a class, seminar, or lab for a practice.
2. Students who have a conflict between an athletics contest and a required academic activity, such as a class meeting or a lecture, should discuss it and try to reach an understanding with their coach and their professor as soon as possible, preferably during the first week of the semester and certainly in advance of the conflict. When a mutually agreeable understanding is not reached, students should be mindful of the primacy of academics at Swarthmore. Students should understand that acceptable arrangements may not be feasible for all classes, particularly seminars and laboratories.
3. Students should take their schedule of athletics contests into account as they plan their class schedules and may want to discuss this with their academic advisers. Students should also provide coaches with a copy of their academic schedules and promptly inform them of any changes.
4. Coaches should make every effort to schedule practices and contests to avoid conflict with classes and should collect their students' academic schedules in an effort to coordinate team activities and minimize conflict. Coaches should instruct students not to miss class for practice and should encourage students to work out possible conflicts between classes and contests as early as possible.
5. Faculty members should provide as complete a description of scheduling requirements as possible to their classes early each semester, preferably before registration or during the first week of classes. Both faculty members and coaches should work with students to resolve contest-related conflicts.
6. Both coaches and faculty should avoid lastminute scheduling changes, and faculty should normally avoid scheduling extraordinary class meetings. Where such meetings seem desirable, students should be consulted and, as the Handbook for Instructional Staff stipulates, the arrangement cleared with the department chair and registrar.

Where possible, extraordinary sessions should be voluntary or offered with a choice of sections to attend. When a schedule is changed after students have arranged their commitments, it is important for the faculty member or coach to be flexible.
7. Classes will normally end each day by 4 p.m. and at 5 p.m. on Fridays. Seminars will often extend beyond 4 p.m. Afternoon laboratories are usually scheduled until 4:15 p.m. or 4:30 p.m., and students who encounter difficulties completing a lab may need to stay later than the scheduled time. In all cases, students are expected to keep to their academic commitments and then attend practices as soon as possible.
8. Faculty members should recognize that students usually set aside the time from $4: 15$ to 7 p.m. for extracurricular activities and dinner. Late afternoon has also traditionally been used for certain courses in the performing arts. Some use of this time for other academic purposes (such as department colloquia, lectures, etc.) is appropriate, but departments are encouraged to exercise restraint in such use, particularly with respect to activities they judge important for the full academic participation of students.

### 7.11 Health Sciences Advisory Program

The function of the Health Sciences Advisory Program is twofold: to advise students interested in a career in the health professions and to prepare letters of recommendation for professional schools to which students apply. The letters are based on faculty evaluations requested by the student, the student's academic record, and nonacademic activities.
Students intending to enter a career in the health professions, especially those applying to medical, dental, or veterinary schools, should plan their academic programs carefully to meet the professional schools' requirements as well as the general College requirements. The following courses fulfill the basic requirements of most medical schools: BIOL 001, 002; CHEM 010, 022, 032, 038; PHYS 003, 004; MATH 015 and Stat 011; an introductory psychology course; an introductory sociology course; and two semesterlong courses in English literature. Dental and veterinary schools have more variable requirements, in addition to the biology, chemistry, and physics listed earlier. Students interested in these fields should meet with the health sciences adviser to plan their programs. Specific requirements for each medical, dental, and veterinary school, along with much other useful information, are given in the following publications, which are available in the Health Sciences Office: Medical School Admission Requirements, Official Guide to Dental Schools, and Veterinary Medical School Admission Requirements.

The work of the junior and senior years may be completed in any major department of the student's choice. All required courses should be taken on a graded basis after the first semester of the first year.
The health sciences adviser meets periodically with students interested in health careers and is available to assist students in planning their programs in cooperation with students' own academic advisers. The Health Sciences Office publishes Guide to Premedical Studies at Swarthmore College and Frequently Asked Preveterinary Questions to help new students plan their academic program and understand what schools look for in applicants. The Guide for Applying to Medical School for Swarthmore Undergraduates and Alumni/ae contains detailed information about the application process.
Further information on opportunities, requirements, and procedures can be obtained from the health sciences adviser and from the Health Sciences Office's pages on the Swarthmore College website at www.swarthmore.edu/premed.

### 7.12 Creative Arts

Work in the creative arts is available both in the curricula of certain departments and on an extracurricular basis. Interested students should consult the departmental statements in art, English literature (creative writing), music and dance, and theater.

### 7.13 Cooperation with Neighboring Institutions

With the approval of their faculty advisers and the registrar, students may take a course offered by Bryn Mawr or Haverford College or the University of Pennsylvania without the payment of extra tuition. Students are expected to know and abide by the academic regulations of the host institution. (This arrangement does not apply to the summer sessions of the University of Pennsylvania and Bryn Mawr College.) Final grades from such courses are recorded on the Swarthmore transcript, but these grades are not included in calculating the Swarthmore grade average required for graduation.

### 7.14 Student Exchange Programs

To provide variety and a broadened outlook for interested students, the College has student exchange arrangements with Harvey Mudd College, Middlebury College, Mills College, Pomona College, and Tufts University. With each institution, there are a limited and matched number of exchanges. Students settle financially with the home institution, thus retaining during the exchange any financial aid for which they are eligible.

Application for domestic exchange should be made to the registrar. The application deadline is Oct. 15 for exchange in the following spring semester; the deadline is March 15 for exchange in the following fall semester. Selection is made from among applicants who will be sophomores or juniors at the time of the exchange. Exchange arrangements do not permit transfer of participants to the institution with which the exchange occurs.
Credit for domestic exchange is not automatic. Students must follow the procedures for receiving credit for work done elsewhere, including obtaining preliminary approval of courses and after-the-fact validation of credit by the relevant Swarthmore department chairs.

### 7.15 Study Abroad

The College emphasizes the importance of study abroad and encourages all students to explore possibilities for doing so as integral parts of their degree programs. The Off-Campus Study Office is the on-campus clearinghouse for information on study abroad, and normally is the starting place for exploration and planning. The Off-Campus Study Office will help all interested students at every stage of the process: planning, study abroad, and return. Proper planning begins with attendance at a general information meeting, and then a study abroad advising appointment, as early as possible in one's college career.
Participants in the Semester/Year Abroad program remain registered at Swarthmore and are subject to the rules and regulations of the College while abroad. Students may study abroad up to two semesters, beginning spring of the sophomore year, and during the junior year. Fall semester seniors may participate in study abroad with the permission of their major department as long as they meet all other eligibility requirements. To be accepted for credit toward the Swarthmore degree, courses taken abroad must meet Swarthmore academic standards, and be preapproved through the Off-Campus Study Office's procedures. Credit for study abroad is awarded according to College regulations for accrediting work at other institutions, and the process must be completed within the semester immediately following participation in a semester or year abroad as part of the Swarthmore College Semester/Year Abroad program.
Students are expected to earn the normal load of four credits per semester, or eight credits per academic year. Students are eligible to earn up to a maximum of five credits per semester, or up to a maximum of ten credits per academic year.
To participate in the Swarthmore College Semester/Year Abroad program students must be in good standing concerning both their academic program and conduct. The Off-Campus Study Office and the Dean's Office meet to review student standing and to determine eligibility.

## 7 Educational Program

Students must also meet the eligibility
requirements of the programs to which they apply.
Eligible students must have completed on average four credits per semester and have no incompletes Students must also have a zero balance on their student accounts.
Participants in the College's Semester/Year
Abroad Program must comply with its payment plan. Students continue to pay Swarthmore's comprehensive fee for tuition, room, and board. The College then pays for the tuition fees, room and board costs, and the round-trip travel of participating students (with Philadelphia as the gateway city). Normally, financial aid is automatically applied to study abroad.
There are more than two hundred approved study abroad programs listed on the Off-Campus Study website: www.ocs.swarthmore.edu.
The following are Swarthmore-administered Programs*, reciprocal exchanges**, and special affiliations:
*Swarthmore's Central European Program, Brno, Czech Republic (see environmental studies)
*Swarthmore's Central European Program,
Krakow, Poland (see engineering and
environmental Studies)
*Swarthmore in Buenos Aries, Argentina (see
Latin American Studies)
*Swarthmore/Macalester/Pomona Globalization, the Environment and Society, Cape Town, South Africa (see environmental studies)
*University of Ghana, ISEP Direct Partner (see music and dance)
**AIKOM University of Tokyo Exchange
Program, Japan
**Ashesi University College Exchange Program, Ghana
Cloud Forest School Internship, Costa Rica (see educational studies)
Danish Institute for Study Abroad, Denmark Hamilton College Academic Year In Spain
HECUA (Higher Education Consortium for Urban
Affairs), Ecuador, New Zealand, Norway
Intercollegiate Center for Classical Studies, Rome, Italy (see classics)
Intercollegiate Sri Lanka Education, Sri Lanka (see Religion)
Semester in Northern Ireland (see peace and conflict studies)
Siena School for Liberal Arts, Italy
The Off-Campus Studies Office maintains direct enrollment agreements with many universities around the world.

In addition to these programs, Swarthmore students attend a number of excellent approved study abroad programs throughout the world provided by other institutions. The Off-Campus Study Office, along with the academic
departments and programs of the College, will advise students on these opportunities.

### 7.16 Student Right to Know

Swarthmore College's graduation rate is 93 percent. This is the percentage graduating within 6 years, based on the most recent cohorts, calculated according to "Student Right to Know" guidelines.

## 8 Faculty Regulations

### 8.1 Attendance at Classes

Regular attendance is expected. Faculty members will report to the dean the name of any student whose repeated absence is in their opinion impairing the student's work. The number of absences allowed in a given course is not specified, a fact that places a heavy responsibility on all students to make sure that their work is not suffering as a result of absences. First-year students should exercise particular care in this respect.
When illness necessitates absence from classes, the student should report at once to the Health Center.
A student may obtain credit for a course without attending class meetings by reading the material prescribed by a syllabus and taking a final examination, under the following conditions:

1. The student must signify intent to do so at the time of registration, having obtained the instructor’s approval in advance.
2. If, after such registration, the student wishes to resume normal class attendance, the instructor's approval must be obtained.
3. The student may be required to perform such work, in addition to the final examination, as the instructor deems necessary for adequate evaluation of his or her performance.
4. The registrar will record the final grade exactly as if the student had attended classes normally.

### 8.2 Grades

During the year, instructors periodically report on the students' coursework to the Dean's and Registrar's offices. Informal reports during the semester take the form of comments on unsatisfactory work. At the end of each semester, formal grades are given in each course either under the credit/no credit (CR/NC) system, or under the letter system, by which A means excellent work; B, good work; C, satisfactory work; D, passing but below the average required for graduation; and NC (no credit), uncompleted or unsatisfactory work. Letter grades may be qualified by pluses and minuses. W signifies that the student has been permitted to withdraw from the course. X designates a condition that means a student has done unsatisfactory work in the first half of a yearlong course but by creditable work during the second half may earn a passing grade for the full course and thereby remove the condition. R is used to designate an auditor or to indicate cases in which the work of a foreign student cannot be evaluated because of deficiencies in English.

### 8.2.1 In Progress

IP (in progress) is the grade used when normally everyone in a class continues working on a project into the next semester. IP is given at the end of the
first semester. Final grades are normally due at the end of the succeeding semester.

### 8.2.2 Incompletes

Inc. means that a student's work is incomplete with respect to specific assignments or examinations. The faculty has voted that a student's final grade in a course should incorporate a zero for any part of the course not completed by the date of the final examination or the end of the examination period. However, if circumstances beyond the student's control (e.g., illness, family emergency) preclude the completion of the work by this date, a grade of Inc. may be assigned with the permission of the faculty instructor and the registrar. Note that "having too much work to do" is not, in fairness to other students, considered a circumstance beyond the student's control. A form for the purpose of requesting an incomplete is available from the Registrar's Office and must be filled out by the student and signed by the faculty instructor and the registrar and returned to the registrar no later than the last day of final examinations. In such cases, incomplete work must normally be made up and graded, and the final grade recorded within 5 weeks after the start of the following term. Except by special permission of the registrar and the faculty instructor, all grades of Inc. still outstanding after that date will be replaced on the student's permanent record by NC (no credit). Waiver of this provision by special permission shall in no case extend beyond 1 year from the time the Inc. grade was incurred.

### 8.2.3 Credit/No Credit

The only grades recorded on students' official grade records for courses taken during the first semester of the first year are CR and NC. In the balance of their work at Swarthmore, students may exercise the option to take up to four more courses for credit/no credit by informing the Registrar's Office within the first 9 weeks of the term in which the course is taken, using the form provided for this purpose. Repeated courses normally may not be taken credit/no credit. Courses only offered as credit/no credit do not count in the four options. For first-year students and sophomores, CR will be recorded for work that would earn a grade of straight D or higher. For juniors and seniors, that is, students in their fifth semester or later, the minimum equivalent letter grade for CR will be straight C.
Instructors are asked to provide the student and the faculty adviser with an evaluation of the student's CR/NC work. The evaluation for first-semester first-year students includes a letter-grade equivalent. For other students, the evaluation may be either a letter-grade equivalent or a comment. Such evaluations are not a part of the student's official grade record. If available, letter-grade equivalents for first-semester first-year students may be provided to other institutions only if
requested by the student and absolutely required by the other institution. Students should save their copies of these evaluations for their records.

### 8.2.4 Repeated Courses

Some courses can be repeated for credit; these are indicated in departmental course descriptions. For other courses, the following rules apply: (1) Permission to repeat a course must be obtained from the Swarthmore instructor teaching the repeated class. (2) These repeated courses may not be taken CR/NC. (3) To take a course at another school that will repeat a course previously taken at Swarthmore, the student must obtain permission from the chair of the Swarthmore department in which the original course was taken, both as a part of the preapproval process to repeat it elsewhere and, in writing, as part of the credit validation after the course is taken elsewhere.
For repeated courses in which the student withdraws with the grade notation W , the grade and credit for the previous attempt will stand. For other repeated courses, the registration and grade for the previous attempt will be preserved on the permanent record but marked as excluded, and any credit for the previous attempt will be permanently lost. The final grade and any credit earned in the repeated course are the grade and credit that will be applied to the student's Swarthmore degree.

### 8.2.5 Grade Reports

Grades are available to students on a secure website. Grade reports are not routinely sent to parents or guardians, but such information may be released when students request it. The only exception to this is that parents or guardians of students are normally informed of grades when students have critical changes in status, such as probation or requirement to withdraw.

### 8.2.6 Grade Average

An average of $C$ (2.0) is required in the courses counted for graduation. An average of $C$ is interpreted for this purpose as being a numerical average of at least $2.0(\mathrm{~A}+, \mathrm{A}=4.0, \mathrm{~A}-=3.67, \mathrm{~B}+$ $=3.33, \mathrm{~B}=3.0, \mathrm{~B}-=2.67, \mathrm{C}+=2.33, \mathrm{C}=2.0, \mathrm{C}-$ $=1.67, \mathrm{D}+=1.33, \mathrm{D}=1.0$, and $\mathrm{D}-=0.67$ ). Grades of CR/NC and grades on the record for courses not taken at Swarthmore College are not included in computing this average.

### 8.3 Registration

All students are required to register and enroll at the times specified in official announcements and to file programs approved by their faculty advisers. Fines are imposed for late or incomplete registration or enrollment.
A regular student is expected to take the prescribed number of courses in each semester to progress toward the degree in the normal eightsemester enrollment. If more than 5 or fewer than 4 credits seem desirable, the faculty adviser should be consulted and a petition filed with the registrar
(programs of fewer than 3 credits are not allowed in the normal eight-semester enrollment). Students are expected to select classes that do not pose scheduling conflicts.
Course registration adds and drops must be finalized within the first 2 weeks of the semester. To add a course, the instructor's permission is required. Withdrawal from a course after the first two weeks of the semester is indicated with the permanent grade notation W. To withdraw from a course, students must file an application to withdraw, and it must be received by the Registrar no later than the end of the 9th week of classes or the 5th week of the course if it meets for only half the semester. After that time, late withdrawals are recorded on the student's record with the notation NC unless the student withdraws from the College.
Students are not required to register for audits. Successfully completed audits are recorded (with the notation R ) at the end of the semester (except in cases where a registered student has withdrawn after the first 2 weeks of the semester, in which cases the appropriate withdrawal notation stands).
A deposit of $\$ 100$ is required of all returning students before their enrollment in both the spring and fall semesters. This deposit is applied to charges for the semester and is not refundable.

### 8.4 Examinations

Any student who is absent from an examination that is announced in advance must understand that the exam may be rescheduled only by special arrangement with the course instructor. Examinations are not normally rescheduled to accommodate travel plans. Examinations are restricted to students who are registered for the course or otherwise have the explicit permission of the faculty member to take the exam.

### 8.4.1 Final Examinations

The final examination schedule specified in official announcements directs the place and time of all finals unless the instructor has made other special arrangements. However, College policy holds that students with three final examinations within 24 hours are allowed to reschedule one of these examinations in consultation with the instructor, as long as the consultation occurs in a timely manner.
By College policy, a student who is not in the Honors Program but who is taking an honors written examination as a course final and has an examination conflict should take the course final examination and postpone the honors written examination until the student's next free examination period. Conversely, a student in the Honors Program who has a conflict with a course final examination should take the honors examination and postpone the course examination in consultation with the professor. In no case may a student take an honors examination before the

## 8 Faculty Regulations

honors written examination period for that examination.

### 8.5 Student Leaves of Absence, Withdrawal, and Readmission

### 8.5.1 Leaves of Absence

Student leaves of absence are freely permitted provided the request for leave is received by the date of enrollment and the student is in good standing. Students planning a leave of absence should consult with a dean and complete the necessary form before the deadline published each semester (usually Dec. 1 and April 1). The form asks students to specify the date of expected return. Students need only notify the dean of their return if their return date changes from that originally indicated on the completed form.

### 8.5.2 Withdrawal

Withdrawal from the College may occur for academic, disciplinary, health, or personal reasons and may be voluntary or required by the College.
For health-related withdrawals, in no case will a student's mental or physical condition itself be a basis for a required withdrawal. However, when health problems of a physical or psychological nature result in behavior that substantially interferes with a student's academic performance or the educational endeavors of other students or poses a significant threat to the student's safety or safety of others, the College may require the student to withdraw. The Evaluation Committeecomprising two deans-makes the decision to require withdrawal for health-related reasons. The Evaluation Committee will review the problematic behavior and may consult with the director of Worth Health Center, the director of Counseling and Psychological Services, or any other appropriate college official when making its decision. Decisions of the Evaluation Committee may be appealed to the dean of students.
Students withdrawing from the College before the end of the semester normally receive the grade notation "W" (withdrawal) on their permanent record for all in-progress courses.

### 8.5.3 Readmission

A student who has withdrawn from the College for any reason, voluntarily or involuntarily, may apply for readmission by writing to Dean of Students. Normally, the College will not accept applications for readmission until a full semester, in addition to the semester in which the student has withdrawn, has passed.
A student applying to the College for readmission after withdrawal is required to provide appropriate documentation of increased ability to function academically and in a residential environment and/or of a decreased hazard to health and safety of self and/or others. In the case of withdrawal for medical reasons, this documentation must include an evaluation from the student's personal health
care provider. In addition, the student will generally be required to show evidence of successful social, occupational, and/or academic functioning during the time away from the College. This evidence must include the completion of any outstanding incompletes on record.
After such evidence has been provided, the materials will be forwarded to the Evaluation Committee. In the case of health-related withdrawals, the materials will be reviewed by the director of Worth Health Center and/or the director of Counseling and Psychological Services, and the student will be required to be evaluated in person by the appropriate health care professional at the College. At the discretion of the Evaluation Committee, such evaluations may be required for other types of withdrawals as appropriate. These evaluations will provide adjunctive information to the committee's decision-making process. The Evaluation Committee will normally meet with the student and will make a determination regarding the student's readiness to resume study at Swarthmore.

### 8.5.4 Short-Term Health-Related Absences

 Students who are hospitalized during the semester are subject to the readmission procedures described above before they may return to campus to resume their studies. In these situations, the Evaluation Committee may also counsel and advise the student about options for how best to approach the remaining academic work in the semester. In all cases, a student returning to campus from the hospital must report to the Worth Health Center and get clearance from the appropriate health care professional before returning to the dormitory to ensure the student's readiness to resume college life and so that followup care can be discussed.
### 8.6 Summer School Work and Other Work Done Elsewhere

Students who wish to receive Swarthmore College credit for work at another school must obtain preliminary approval and after-the-fact validation by the chair of the Swarthmore department or program concerned. Preliminary approval depends on adequate information about the content and instruction of the work to be undertaken and ensures the likelihood of the work's applicability toward the Swarthmore degree as well as clarifies the amount of Swarthmore credit likely. Preliminary approval is tentative. Final validation of the work for credit depends on evaluation of the materials of the course, including syllabus, transcript, written work, examinations, indication of class hours, and so forth. Work in other programs, especially summer school programs, may sometimes be given less credit than work at Swarthmore, but this will depend on the nature of the program and the work involved. Validation

## 8 Faculty Regulations

may include an examination, written or oral, administered at Swarthmore. All decisions are made on a case-by-case basis. Credit for AP and similar work is discussed in section 3.5. To receive Swarthmore credit for study abroad during the academic year, students must participate in the College's Semester/Year Abroad Program and comply with its payment plan (study abroad is discussed in section 7.14).
An official transcript from the other school must be received by the Registrar's Office before validated work can be recorded for credit. By College policy, in order for work done elsewhere to be granted Swarthmore College credit, the grade for that work must be the equivalent of a straight C or better, but a better than C grade does not in itself qualify for Swarthmore credit.
Students who wish to receive natural sciences and engineering practicum (NSEP) credit for courses taken elsewhere must obtain preliminary approval for the course from the department involved as well as final validation as with other credit. The department can approve NSEP credit if the course is comparable with a Swarthmore NSEP course. Generally, courses taken elsewhere that are not comparable with a Swarthmore NSEP will not receive NSEP credit; however, in exceptional cases, if NSEP criteria are satisfied elsewhere, the department chair may recommend NSEP credit award to the Division of Natural Sciences and Engineering for its final decision.
Requests for credit must be made within the semester following the term in which the work was done. Credit is lost if a student takes a course at Swarthmore that essentially repeats the work covered by the credit.

### 8.7 Physical Education

In the first and second years, all nonveteran students not excused for medical reasons are required to complete 4 units of physical education by the end of their sophomore year. In addition, all students must pass a survival swimming test or take up to one unit of swimming instruction by the end of their sophomore year. For complete requirements, see Physical Education and Athletics.

### 8.8 Exclusion from College

The College reserves the right to exclude, at any time, students whose academic standing it regards as unsatisfactory and without assigning any further reason therefore, and neither the College nor any of its officers shall be under any liability
whatsoever for such exclusion.

## 9 Degree Requirements

### 9.1 Bachelor of Arts and Bachelor of Science

The degree of bachelor of arts or bachelor of science is conferred upon students who have met the following requirements for graduation. The candidate must have:

1. Completed 32 course credits or their equivalent.
2. An average grade of at least $C$ in the Swarthmore courses counted for graduation (see section 8.2.6). A student with more than 32 credits may use the Swarthmore credits within the highes 32 for the purposes of achieving the C average.
3. Complied with the distribution requirements and have completed at least 20 credits outside one major subject (see section 7.2).
4. Fulfilled the foreign language requirement, having either: (a) successfully studied 3 years or the "block" equivalent of a single foreign language during grades 9 through 12 (work done before grade 9 cannot be counted, regardless of the course level); (b) achieved a score of 600 or better on a standard achievement test of a foreign language; (c) passed either the final term of a college-level, yearlong, introductory foreign language course or a semester-long intermediate foreign language course; or (d) learned English as a foreign
language while remaining demonstrably proficient in another.
5. Met the requirements in the major and supporting fields during the last 2 years. (For requirements pertaining to majors and minors, see section 7.4).
6. Passed satisfactorily the comprehensive examinations in his or her major field or met the standards set by visiting examiners in the Honors Program.
7. Completed four semesters of study at

Swarthmore College. Two of these must constitute the senior year (i.e., the last two full-time semesters of degree work), with the exception that seniors during the first semester of their senior year, with the approval of the chair(s) of their major department(s), may participate in the Swarthmore Semester/Year Abroad Program. (For more information regarding the senior year rule, see section 7.6.1).
8. Completed the physical education requirement set forth in the Physical Education and Athletics Department statements.
9. Paid all outstanding bills and returned all equipment and library books.

### 9.2 Master of Arts and Master of Science

The degree of master of arts or master of science may be conferred subject to the following requirements:
Only students who have completed the work for the bachelor's degree with some distinction, either
at Swarthmore or at another institution of satisfactory standing, shall be admitted as candidates for the master's degree at Swarthmore.
The candidate's record and a detailed program setting forth the aim of the work to be pursued shall be submitted, with a recommendation from the department or departments concerned, to the Curriculum Committee. If accepted by the committee, the candidate's name shall be reported to the faculty at or before the first faculty meeting of the year in which the candidate is to begin work.
The requirements for the master's degree shall include the equivalent of a full year's work of graduate character. This work may be done in courses, seminars, reading courses, regular conferences with members of the faculty, or research. The work may be done in one department or in two related departments. A candidate for the master's degree shall be required to pass an examination conducted by the department or departments in which the work was done. The candidate shall be examined by outside examiners, provided that where this procedure is not practicable, exceptions may be made by the Curriculum Committee. The department or departments concerned, on the basis of the reports of the outside examiners, together with the reports of the student's resident instructors, shall make recommendations to the faculty for the award of the degree.
At the option of the department or departments concerned, a thesis may be required as part of the work for the degree.
A candidate for the master's degree will be expected to show before admission to candidacy a competence in those languages deemed by his or her department or departments most essential for the field of research. Detailed language requirements will be indicated in the announcements of departments that admit candidates for the degree.
The tuition fee for graduate students who are candidates for the master's degree is the same as for undergraduates (see section 4.1).

## 10 The Corporation

May 3, 2014 to May 2, 2015
Giles K. Kemp '72, Chair
Salem D. Shuchman '84, Vice Chair
Nancy N. Nicely, Secretary
Swarthmore College

Maurice G. Eldridge '61, Assistant Secretary
Swarthmore College
Eileen Petula, Treasurer
Swarthmore College
Lori Ann Johnson, Assistant Treasurer
Swarthmore College

## 11 Board of Managers

## Board of Managers

Karim Abdel-Motaal '90
Richard Barasch '75
Sohail Bengali '79
Rhonda Cohen '76
Janet S. Dickerson H’92
Delvin Dinkins '93
Elizabeth Economy '84
Nathaniel Erskine '10
J. David Gelber '63

James E. Gregory '85
Thomas Hartnett '94
Marilyn Holifield '69
James C. Hormel III '55
S. Leslie Jewett '77

Harold "Koof" Kalkstein '78
Giles K. Kemp ’72
Jane Lang '67
Danielle Moss Lee '90
Susan B. Levine '78
Lucinda Lewis '70
Bennett Lorber '64
James Lovelace '79
Barbara W. Mather '65
Christopher Niemczewski '74
Gina-Nicole O’Dell Odim '88
Sibella Clark Pedder '64
Ann Reichelderfer '72

Elizabeth H. Scheuer '75
Gustavo R. Schwed '84
June Rothman Scott '61
Robin Shapiro '78
Salem D. Shuchman '84
David W. Singleton '68
Thomas E. Spock '78
Sujatha Srinivasan '01
Robert Steelman '92
Davia Temin '74
Joseph Turner '73
Ruth Shoemaker Wood '01

## Emeriti

Julie Lange Hall '55
Samuel L. Hayes III '57
Jerome Kohlberg Jr. ' 46
Elizabeth J. McCormack
Marge Pearlman Scheuer '48
J. Lawrence Shane '56

## Ex officio

Constance Cain Hungerford, Interim President Swarthmore College
David Ko '92, Alumni Council President
Chairman of the Board Emeritus
Eugene M. Lang '38

### 11.1 Committees of the Board

The chair of the Board is an ex officio member of every committee.

## Executive

Giles K. Kemp, Chair
Salem D. Shuchman, Vice Chair
Constance Cain Hungerford
Rhonda Cohen
Janet Smith Dickerson
Thomas W. T. Hartnett
Harold (Koof) Kalkstein
Eugene M. Lang *
Susan B. Levine
Bennett Lorber
Barbara W. Mather
Nancy Nicely**
Chris Niemczewski
Robin M. Shapiro
Thomas E. Spock
Sujatha Srinivasan
Joseph Turner

## Academic Affairs

Joseph Turner, Chair
James Lovelace, Vice Chair
Julie Hall*
Marilyn Holifield
Jane Lang
Lucinda M. Lewis
Bennett Lorber
Sibella Clark Pedder
Ann Reichelderfer
Elizabeth H. Scheuer
Marge Scheuer*
June Scott
Rob Steelman

## 11 Board of Managers

## Admissions and Financial Aid

Thomas E. Spock, Chair
Delvin Dinkins, Vice Chair
Richard Barasch
Sohail Bengali
Samuel L. Hayes III*
Marilyn Holifield
Harold (Koof) Kalkstein
Jane Lang
Lucinda M. Lewis
Barbara Mather
Sibella Pedder
Elizabeth H. Scheuer
June Scott
Rob Steelman

## Audit and Risk Management

Sujatha Srinivasan, Chair
Ann Reichelderfer, Vice Chair
Sohail Bengali
Rhonda Cohen
Leslie Jewett
Harold (Koof) Kalkstein, ex officio

## Compensation

Giles K. Kemp, Chair
Salem D. Shuchman, Vice Chair
Marilyn Holifield
Harold (Koof) Kalkstein, ex officio
Chris Niemczewski
Robin Shapiro

## Development and Communications

Robin Shapiro, Chair
Gustavo Schwed, Vice Chair
Nathaniel A.K. Erskine
Thomas W.T. Hartnett
Eugene M. Lang*
Danielle Moss Lee
James Lovelace
Chris Niemczewski
Ann Reichelderfer
Sujatha Srinivasan
Davia Temin
Ruth Shoemaker Wood

## Finance

Harold (Koof) Kalkstein, Chair
Richard Barasch, Vice Chair
Sohail Bengali
Rhonda Cohen
Leslie Jewett
Thomas W. T. Hartnett
Barbara W. Mather
Gustavo Schwed
David Singleton
Thomas E. Spock

## Investment

Chris Niemczewski, Chair
Salem Shuchman, Vice Chair
Ephraim Greenwall **
Mark M. Harmeling **
Thomas W. T. Hartnett

Harold (Koof) Kalkstein, ex officio
Eugene M. Lang *
Corey Mulloy **
Gustavo Schwed

## Nominating and Governance

Rhonda Cohen, Chair
Marilyn Holifield, Vice Chair
Sohail Bengali
Barbara W. Mather
Robin M. Shapiro
Ruth Shoemaker Wood

## Property

Thomas W. T, Hartnett, Chair
David W. Singleton, Vice Chair
Janet Smith Dickerson
Samuel L. Hayes III*
Jane Lang
Susan B. Levine
Chris Niemczewski
June Scott
Thomas E. Spock
Joseph L. Turner

## Social Responsibility

Susan B. Levine, Chair
Bennett Lorber, Vice Chair
Janet Smith Dickerson
David Gelber
James C. Hormel
David Ko, ex officio
Eugene M. Lang *
Salem Shuchman
David Singleton
Students, faculty and staff to be named in
September 2014.

## Student Affairs

Janet Smith Dickerson, Chair
Ruth Shoemaker Wood, Vice Chair
Delvin Dinkins
Nathaniel A. K. Erskine
David Gelber
James C. Hormel
David Ko, ex officio
Eugene M. Lang*
Danielle Moss Lee
Susan B. Levine
Salem Shuchman
David W. Singleton
Sujatha Srinivasan
Davia Temin
*Emeriti manager
**Non-board member

## 12 Alumni Association Officers and Alumni Council

The Alumni Relations Office is the primary communication link between the College and its alumni, enabling them to maintain an ongoing relationship with each other. Some of the office's programs and activities include Alumni Weekend, national and international alumni gatherings, and alumni travel. The Alumni Office facilitates online engagement with alumni and manages alumni volunteers. They also hire students for general office work and to help at on-campus alumni events.
The Alumni Office works closely with the Career Services Office to facilitate networking between students and alumni and among alumni, to take advantage of the invaluable experience represented among the alumni. The Alumni Office also helps officers of the senior class and alumni groups plan special events.
The Alumni Office gives staff support to the Alumni Association, which was founded in 1882, and to the Alumni Council, the governing body of the Alumni Association. The Alumni Office also gives staff support to regional alumni and parent groups, called Connections, in various cities, worldwide. There are 10,045 alumni: 10,075 men, 9,966 women, and 3 unreported, with 2,594 married to each other, giving substance to the College’s traditional appellation, "Quaker matchbox." The College defines an alumnus/a as anyone who has completed one semester.

## Alumni Association Officers

David Ko '92, president
Janet Erlick '88, vice president
Don McMinn '86, vice president
Lourdes Rosado '85, vice president
Paige Gentry '07, secretary

## Zone A

Delaware, Pennsylvania
Deborah Lyons '70³ West Chester, Pa.
Leonard I. Nakamura '69 ${ }^{1}$
Philadelphia, Pa.
Lourdes M. Rosado ' $85{ }^{1}$ Havertown, Pa.
Tuan-Linh Nguyen '02 ${ }^{3}$ Carlisle, Pa.
Robert Mueller '68 ${ }^{2}$
Philadelphia, Pa.

## Zone B

New Jersey, New York
Donna L. Gresh ' $83{ }^{1}$
Cortlandt Manor, N.Y.
Jaky Joseph '06 ${ }^{1}$
New York, N.Y.
Katherine Buttolph ' $74^{3}$
Skillman, N.J.
Lucy Jane Lang ' $03{ }^{2}$ New York, N.Y.

Peter Jacquette ' $74{ }^{3}$
Summit, N.J.
Thomas L. Newman II '87 ${ }^{1}$
Pompton Plains, N.J.
Thomas Stoddard ' $87^{2}$ Monteclair, N.J.

## Zone C

Connecticut, Maine, Massachusetts, New
Hampshire, Rhode Island, and Vermont
Bruce Maxwell '91³ Pittsfield, Me.
Dina Aronzon '05 ${ }^{1}$ Cambridge, Mass.
David Jenemann '93 1,4 Burlington, Vt.
David Kidder ' $62^{2}$ Watertown, Mass.
Ila Deshmukh Towery ' $99^{2}$ Jamaica Plain, Mass.
Joseph M. Armah '98 ${ }^{1,4}$ Norwalk, Conn.
Susan Corcoran ' $72^{3}$ Cambridge, Mass.

## Zone D

District of Columbia, Maryland, and Virginia
Barbara Stubbs Cochran '67 ${ }^{1}$
Washington, D.C.
Antoinette M. Sayeh ' $79^{2}$
Washington, D.C.
Charles Mayer ' $98^{3}$ Washington, D.C.
Donald McMinn '86 ${ }^{1}$ Washington, D.C.
Ethan Landis ' $84{ }^{2}$
Washington, D.C.
Tanyaporn Wansom ' $02^{3}$ Columbia, Md.

## Zone E

Illinois, Indiana, Iowa, Kansas, Michigan,
Minnesota, Missouri, Nebraska, North Dakota,
Ohio, Oklahoma, South Dakota, Texas, West
Virginia, and Wisconsin
Carolyn Kelley ' $75{ }^{1}$
Austin, Texas
Benjamin Keys '01 ${ }^{1,4}$ Chicago, Ill.Jules Moskowitz '66 ${ }^{1}$ Prairie Village, Kan.
Susan Morrison '81 ${ }^{1,4}$
Austin, Texas
Vanessa Askot '03 ${ }^{3}$ Chicago, Ill.
William K. Wanjohi '05² Chicago, Ill.

## 12 Alumni Association Officers and Alumni Council

## Zone F

Alabama, Arkansas, Florida, Georgia, Kentucky,
Louisiana, Mississippi, North Carolina, South
Carolina, Tennessee, territories, dependencies,
and foreign countries
Brian Sean Heaney ' $83^{2}$
Durham, N.C.
Emily Nolte ' $07^{3}$
Atlanta, Ga.
Janet Erlick '88 ${ }^{1}$
Fort Lauderdale, Fla.
Kenneth M. Gibson '76 ${ }^{1}$
Atlanta, Ga.
Paige M. Gentry ' $07^{1}$
Durham, N.C.

## Zone G

Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon,
Utah, Washington, and Wyoming
Alison Campbell ' $87^{2}$
Mill Valley, Calif.
Chirag Chotalia '04 ${ }^{3}$
Los Angeles, Calif.
Cathryn J. Polinsky '99 ${ }^{1}$
San Mateo, Calif.
David Ko '92 ${ }^{1}$
San Mateo, Calif.
Elan Silverblatt-Buser ' $12{ }^{1}$
Gorrales, N.M
Evan J. Wittenberg '91 ${ }^{1}$
Palo Alto, Calif.Kwaku Sefa-Dedeh '02 ${ }^{3}$ Seattle, Wash.
Way-Ting Chen ' $94^{3}$
Playa del Rey, Calif.
Nominating Committee Chair
Susan Morrison '81
International Connection Chair
George Telford ' $84^{2}$

## Connection Representatives

Atlanta
Emily Anne Nolte '07 Atlanta, Ga.
Robin Smith Petruzielo '03 Atlanta, Ga.
Linda Ann Valleroy '72
Decatur, Ga.
Beijing
Natalia Cote-Muñoz '12
Beijing, China
Michael Xu '12
Beijing, China
Boston
Gina Salcedo '10
Somerville, Ma.
David Wright '69 Wellesley, Ma.

Chicago
Marilee Roberg '73
Willmette, Ill.
DC/Baltimore
Maggie DeLorme '10 Arlington, Va.
Frank Mazzucco ’08
Arlington, Va.
Denver
Erin Trapp '92
Denver, Col.
Houston
Curtis Trimble '96
London
Abby Honeywell '85
Staines-upon-Thames, Eng.
Los Angeles
Deborah How '89
Santa Monica, Ca.
New York City
Eva Amesse '11
Staten Island, N.Y.
Lily Ng '08
Paris
Anäis Loizillon '95
Philadelphia
Jim Moskowitz '88
Swarthmore, Pa.
Pittsburgh
Emmanual Afrifa '11
Pittsburgh, Pa.
Melissa Kelley '81
Aspinwall, Pa.
San Francisco
Autumn Quinn '04 Redwood City, Ca.
Seattle
TBD
Seoul
Han Youl Cho ’09
Seoul, South Korea
Bruce Han '86 Seoul, South Korea
Shanghai
Patty Winpenny '74
Shanghai, China
Singapore
Angelina Seah '07 Singapore
Taipei
Erik Guyot '84
Taipei, Taiwan
Triangle Area
George Telford III '84
Durham, N.C.
Madrianne Wong '11
Durham, N.C.

## 12 Alumni Association Officers and Alumni Council

Tucson Twin Cities

Laura Markowitz '85 TBD Tucson, Ariz.
win Cities
${ }^{3}$ Term ends 2017.
${ }^{1}$ Term ends 2015
${ }^{4}$ Nominating Committee

## 13 Faculty and Other Instructional Staff

### 13.1 Emeriti

Robert C. Bannister, B.A., Ph.D., Yale
University; B.A., M.A., University of Oxford, Scheuer Professor Emeritus of History.
Robert A. Barr Jr., B.A., Swarthmore College;
M.A., University of Pennsylvania, Dean Emeritus of Admissions.
Thomas H. Blackburn, B.A., Amherst College;
B.A., M.A., University of Oxford; Ph.D., Stanford University, Centennial Professor Emeritus of English Literature.
John R. Boccio, B.S., Polytechnic Institute of Brooklyn; Ph.D., Cornell University, Professor Emeritus of Physics.
Thompson Bradley, B.A., Yale University; M.A., Columbia University, Professor Emeritus of Russian.
Aurora Camacho de Schmidt, B.A., Universidad Iberoamericana; M.A., Ph.D., Temple University, Professor Emerita of Spanish.
Lee Devin, B.A., San Jose State College; M.A., Ph.D., Indiana University, Professor Emeritus of Theater.
Robert S. DuPlessis, B.A., Williams College; M.A., Ph.D., Columbia University, Isaac H. Clothier Professor Emeritus of History and International Relations.
Marion J. Faber, B.A., M.A., University of California, Berkeley; Ph.D., Harvard University, Scheuer Family Professor Emerita of Humanities and Professor Emerita of German.
James D. Freeman, B.A., M.A., Ph.D., Harvard University, Daniel Underhill Professor Emeritus of Music.
J. William Frost, B.A., DePauw University; M.A., Ph.D., University of Wisconsin, Howard M. and Charles F. Jenkins Professor Emeritus of Quaker History and Research.
John E. Gaustad, A.B., Harvard University; Ph.D., Princeton University, Edward Hicks Magill Professor Emeritus of Astronomy.
Kenneth J. Gergen, B.A., Yale University; Ph.D., Duke University, Gil and Frank Mustin Professor Emeritus of Psychology.
Charles E. Gilbert, B.A., Haverford College;
Ph.D., Northwestern University, Professor
Emeritus of Political Science and Provost Emeritus.
Scott F. Gilbert, B.A., Wesleyan University; M.A., Ph.D., Johns Hopkins University, Howard A. Schneiderman Professor Emeritus of Biology.

James H. Hammons, B.A., Amherst College;
M.A., Ph.D., Johns Hopkins University, Professor Emeritus of Chemistry.
John J. Hassett, B.A., St. Francis College; M.A., University of Iowa; Ph.D., University of Wisconsin, Susan W. Lippincott Professor Emeritus of Modern and Classical Languages.

Mark A. Heald, B.A., Oberlin College; M.S., Ph.D., Yale University, Morris L. Clothier Professor Emeritus of Physics.
Raymond F. Hopkins, B.A., Ohio Wesleyan
University; M.A., Ohio State University; M.A., Ph.D., Yale University, Richter Professor Emeritus of Political Science.
Gudmund R. Iversen, M.A., University of Michigan; Ph.D., Harvard University, Professor Emeritus of Statistics.
Charles L. James, B.S., State University of New
York, New Paltz; M.S., State University of New
York, Albany, Sara Lawrence Lightfoot Professor Emeritus of English Literature.
Jennie Keith, B.A., Pomona College; M.A., Ph.D., Northwestern University, Centennial Professor Emerita of Anthropology and Provost Emerita.
Charles F. Kelemen, B.A., Valparaiso University;
Ph.D., Pennsylvania State University, Edward
Hicks Magill Professor Emeritus of Computer Science.
Deborah G. Kemler Nelson, B.A., M.A., Ph.D., Brown University, Centennial Professor Emerita of Psychology.
T. Kaori Kitao, B.A., M.A., University of California, Berkeley; Ph.D., Harvard University, William R. Kenan Jr., Professor Emerita of Art History.
Eugene A. Klotz, B.S., Antioch College; Ph.D., Yale University, Albert and Edna Pownall Buffington Professor Emeritus of Mathematics.
James R. Kurth, B.A., Stanford University;
M.A., Ph.D., Harvard University, Claude C. Smith Professor Emeritus of Political Science.
Hugh M. Lacey, B.A., M.A., University of Melbourne; Ph.D., Indiana University, Scheuer Family Professor Emeritus of Philosophy.
Asmarom Legesse, B.A., University College of Addis Ababa; Ed.M., Ph.D., Harvard University, Professor Emeritus of Anthropology.
Lillian M. Li, A.B., Radcliffe College; A.M., Ph.D., Harvard University, Sara Lawrence Lightfoot Professor Emerita of History.
Paul C. Mangelsdorf Jr., B.A., Swarthmore College; Ph.D., Harvard University, Morris L. Clothier Professor Emeritus of Physics.
Jeanne Marecek, B.S., Loyola University; Ph.D., Yale University, William R. Kenan Jr. Professor Emerita of Psychology.
Michael Marissen, B.A., Calvin College; Ph.D., Brandeis University, Professor Emeritus of Music.
Ann Kosakowski McNamee, B.A., Wellesley
College; M.Phil., Ph.D., Yale University, Professor Emerita of Music.
Jane Mullins, B.A., Swarthmore College, Registrar Emerita.

## 13 Faculty and Other Instructional Staff

Hans F. Oberdiek, B.S., Ph.D., University of Wisconsin, Henry C. and Charlotte Turner Professor Emeritus of Philosophy.
Frederick L. Orthlieb, B.S. M.S., Massachusetts Institute of Technology; Ph.D., Carnegie Mellon University, The Isaiah V. Williamson Chair of Civil and Mechanical Engineering, Professor Emeritus of Engineering.
Harold E. Pagliaro, A.B., M.A., Ph.D., Columbia
University, Alexander Griswold Cummins Professor Emeritus of English Literature and Provost Emeritus.
Robert F. Pasternack, B.A., Ph.D., Cornell University, Edmund Allen Professor Emeritus of Chemistry and Biochemistry.
Jean Ashmead Perkins, B.A., Swarthmore College; M.A., Ph.D., Columbia University, Susan W. Lippincott Professor Emerita of French.

Steven I. Piker, B.A., Reed College; Ph.D., University of Washington, Professor Emeritus of Anthropology.
Ernest J. Prudente, B.S., M.S., University of Pennsylvania, Professor Emeritus of Physical Education.
Frederic L. Pryor, B.A., Oberlin College; M.A., Ph.D., Yale University, Professor Emeritus of Economics.
Gilbert P. Rose, B.A., Ph.D., University of California, Berkeley, Susan Lippincott Professor Emeritus of Modern and Classical Languages.
Alburt M. Rosenberg, B.A., Harvard University; M.S., University of Florida; Ph.D., University of Pennsylvania, Associate Professor Emeritus of Natural Science.
Robert Roza, B.A., University of Toronto; M.A., Ph.D., Princeton University, Susan W. Lippincott Professor Emeritus of French.
Robert E. Savage, B.A., Oberlin College; M.S., Ph.D., University of Wisconsin, Isaac H. Clothier Jr. Professor Emeritus of Biology.
Richard Schuldenfrei, B.A., M.A., University of Pennsylvania; Ph.D., University of Pittsburgh, Professor Emeritus of Philosophy.
Bernard S. Smith, B.A., M.A., University of Oxford; Ph.D., Harvard University, Professor Emeritus of History.
David G. Smith, B.A., M.A., University of Oklahoma; Ph.D., Johns Hopkins University, Richter Professor Emeritus of Political Science.
Barbara Yost Stewart, B.A., Swarthmore College; M.A., Ph.D., Bryn Mawr College, Professor Emerita of Biology.
Donald K. Swearer, B.A., M.A., Ph.D., Princeton University; B.D., S.T.M., Yale Divinity School, Charles and Harriett Cox McDowell Professor Emeritus of Religion.
Francis P. Tafoya, B.S., M.A., University of Colorado; Ph.D., Yale University, Professor Emeritus of French and Spanish.

Peter T. Thompson, B.A., Johns Hopkins University; Ph.D., University of Pittsburgh, Professor Emeritus of Chemistry.
Eva F. Travers, B.A., Connecticut College; M.A., Ed.D., Harvard University, Professor Emerita of Educational Studies.
P. Linwood Urban Jr., B.A., Princeton

University; S.T.B., S.T.M., Th.D., General
Theological Seminary, Charles and Harriett Cox McDowell Professor Emeritus of Religion.
Judith G. Voet, B.S., Antioch College; Ph.D., Brandeis University, James H. Hammons Professor Emerita of Chemistry.
Larry E. Westphal, B.A., Occidental College; Ph.D., Harvard University, J. Archer and Helen C. Turner Professor Emeritus of Economics.
Robert E. Williams, B.S., Delaware State
College; M.S., Rutgers University, Marian Snyder Ware Professor Emeritus of Physical Education and Athletics.
Timothy C. Williams, B.A., Swarthmore College; A.M., Harvard University; Ph.D., Rockefeller University, Professor Emeritus of Biology.
Harrison M. Wright, B.A., M.A., Ph.D., Harvard
University, Isaac H. Clothier Professor Emeritus of History and International Relations and Provost Emeritus.
Sarah Lee Lippincott Zimmerman, B.A., University of Pennsylvania; M.A., Swarthmore College; D.Sc., Villanova University, Professor Emerita of Astronomy and Director Emerita of the Sproul Observatory.

### 13.2 Faculty and Other Instructional Staff

Tariq al-Jamil, B.A., Oberlin College; M.T.S., Harvard University; M.A., Ph.D., Princeton
University, Associate Professor of Religion.
Elaine Allard, B.A., Swarthmore College; MA
University of Pennsylvania; Ph.D., University of Pennsylvania, Visiting Assistant Professor, Educational Studies.
Khaled Al-Masri, B.A., M.A., Yarmouk University of Arabic Language and Literature; Ph.D., University of Michigan, Assistant Professor of Arabic.
Todd Anckaitis, B.A., Lafayette College; M.S., Smith College, Head Coach/Instructor, Physical Education.
Diane Downer Anderson, B.A., Montclair State College; M.S., Drexel University; Ph.D.,
University of Pennsylvania, Associate Dean for
Academic Affairs and Associate Professor of Educational Studies.
Nathalie Anderson, B.A., Agnes Scott College; M.A., Georgia State University; Ph.D., Emory University, Professor of English Literature.

## 13 Faculty and Other Instructional Staff

Diego Armus, B.A., University of Buenos Aires; M.A., Ph.D., University of California, Berkeley, Associate Professor of History.
Kim D. Arrow, B.S., Temple University; M.F.A., New York University, Associate Professor of Dance.
Elizabeth Atkinson, B.F.A., Carnegie Mellon University; M.F.A., Yale University, Visiting Assistant Professor of Theater.
Farid Azfar, B.A., Tufts University; M.A., University of Southern California; Ph.D., Brown University, Assistant Professor of History.
Jodie A. Baird, A.B., Stanford University; M.S., Ph.D., University of Oregon, Visiting Assistant Professor of Psychology.
Alan R. Baker, B.A., University of Cambridge; M.A., Ph.D., Princeton University, Associate Professor of Philosophy.
Micaela Baranello, B.A., Swarthmore College; M.A., Ph.D., Princeton University, Visiting Assistant Professor of Music.
Marcantonio Barone, B.Mus., Curtis Institute of Music; Artist Diploma, Peabody Conservatory, Associate in Performance (Music).
Alex Baugh, B.S. University of Utah; Ph.D., University of Texas-Austin, Assistant Professor of Biology.
Peter Baumann, M.A., Ph.D., University of Gottingen, Professor of Philosophy.
Gabriel Quinn Bauriedel, B.A., Swarthmore
College; Certificate, École Internationale de Théâtre Jacques Lecoq, Visiting Assistant Professor of Theater.

Amanda Bayer, B.A., Williams College; M.A., M.Phil., Ph.D., Yale University, Professor of Economics.
Stephen P. Bensch, M.A., University of Toronto; Ph.D., University of California, Berkeley, Professor of History.
Benjamin Berger, A.B., Princeton University; M.A., Ph.D., Harvard University, Associate Professor of Political Science.
Deborah J. Bergstrand, B.S., Allegheny College;
M.S., Ph.D., University of Illinois, Professor of Mathematics and Statistics.
Alan Berkowitz, B.A., University of Vermont; M.A., Ph.D., University of Washington, Susan W. Lippincott Professor of Modern and Classical Languages, Professor of Chinese.
Jean-Vincent Blanchard, B.A., M.A., Université de Montréal; Ph.D., Yale University, Professor of French.
Elizabeth Bolton, B.A., Middlebury College; M.Phil., Ph.D., Yale University, Professor of English Literature.
Karen Borbee, B.S., University of Delaware; M.Ed., Widener University, Professor of Physical Education.

Joshua Brody, B.S., Carnegie Mellon University; M.S., New York University; Ph.D., Dartmouth College, Visiting Assistant Professor of Computer Science.
Erin Todd Bronchetti, B.A., Miami University; M.A., Ph.D., Northwestern University, Assistant Professor of Economics.
Michael R. Brown, B.A., Pomona College; Ph.D., Dartmouth College, Professor of Physics.
Laynie Browne, B.A., University of California, Berkeley; M.F.A., Brown University, Instructor, Department of English Literature.
Nanci Lissette Buiza, B.A., M.A. California State University; Ph.D., Emory University, Assistant Professor of Spanish.
Derek S. Burdette, B.A., Northern Arizona University; M.A., Ph.D., Tulane University, Visiting Assistant Professor of Art History.
Timothy J. Burke, B.A., Wesleyan University; M.A., Ph.D., Johns Hopkins University, Professor of History.
Caroline A. Burkhard, B.S., M.S., University of Delaware, Laboratory Instructor of Chemistry.
Rachel Sagner Buurma, B.A., Swarthmore
College; Ph.D., University of Pennsylvania,
Associate Professor of English Literature.
Garikai Campbell, B.A., Swarthmore College;
Ph.D., Rutgers University, Associate Professor of Mathematics.
Sydney L. Carpenter, B.F.A., M.F.A., Tyler
School of Art, Professor of Studio Art.
Peter Carroll, B.S., M.A., Villanova University, Head Coach/Instructor, Physical Education and Athletics.
John P. Caskey, B.A., Harvard University; Ph.D., Stanford University, Professor of Economics.
Pallabi Chakravorty, B.A., Jadavpur University; Ph.D., Temple University, Associate Professor of Dance.
Joy Charlton, B.A., University of Virginia; M.A., Ph.D., Northwestern University, Professor of Sociology and Executive Director of the Eugene M. Lang Center for Civic and Social Responsibility.
Erik Cheever, B.S., Swarthmore College; M.S.E., Ph.D., University of Pennsylvania, Professor of Engineering.
BuYun Chen, B.A., Barnard College; M.A., Ph.D., Columbia University, Assistant Professor of History.
Linda Chen, A.B. Harvard College; Ph.D., University of Chicago, Associate Professor of Mathematics and Statistics.
Chen-Huan Chiang, B.S., National Chiao Tung
University; M.S., University of Southern
California; Ph.D.,University of Southern California, Visiting Assistant Professor of Engineering.

## 13 Faculty and Other Instructional Staff

Benjamin Cherel, D.E.A., Université de Grenoble; M.A., Université de Grenoble, Lecturer of French.
Julia Chindemi Vila, B.A., Universidad de Buenos Aires, Argentina; M.A., Temple University, Visiting Lecturer of Spanish.
Yvonne P. Chireau, B.A., Mount Holyoke
College; M.T.S., Harvard University; Ph.D., Princeton University, Professor of Religion.
Ju-hui Chiu, B.A., Shih-Hsin University; M.A., University of Texas at Austin, Lecturer in Chinese.
Erica Cho, B.F.A., Pennsylvania State University; M.F.A., University of California, Irvine. Visiting Assistant Professor of Film and Media Studies.
Stella Christie, B.A., Harvard University; Ph.D., Northwestern University, Assistant Professor of Psychology.
Harleigh Chwastyk, B.A., Trinity College; M.S.,
Smith College, Head Coach/Instructor, Physical Education and Athletics.

Renee Clarke, B.S., Rutgers University-Douglass
College, Head Coach/Instructor, Physical
Education And Athletics.
David H. Cohen, B.A., Harvard University; Ph.D., University of Wisconsin, Professor of Astronomy.
Lara Langer Cohen, B.A., University of Chicago; Ph.D., Yale University, Assistant Professor of English.
Peter J. Collings, B.A., Amherst College; M.Ph., Ph.D., Yale University, Morris L. Clothier Professor of Physics.
Scott A. Cook, B.S., Southern Nazarene
University; M.A., Ph.D., Washington University in
St. Louis, Visiting Assistant Professor of Mathematics.
Michael W. Cothren, B.A., Vanderbilt
University; M.A., Ph.D., Columbia University, Scheuer Family Professor of Humanities.
Arnaud Courgey, M.A. (Maîtrise) and
Agrégation, U. de Franche-Comté, France; M.A.,
University Paris Diderot, France, Visiting Lecturer of French.
Catherine H. Crouch, A.B., Williams College; A.M., Ph.D., Harvard University, Associate Professor of Physics.
Andrew Danner, B.S., Gettysburg College; M.S., Ph.D., Duke University, Assistant Professor of Computer Science.
Brad Davidson, B.A., Swarthmore College; Ph.D., University of Washington, Assistant Professor of Biology.
LaDeva Davis, B.M.Ed., Temple University, Associate in Performance (Dance).
Susan P. Davis, B.S., Springfield College; M.S.,
Smith College, Professor of Physical Education.

Shelley DePaul, B.S., East Stroudsburg University; M.S., East Stroudsburg University, Instructor of Linguistics.
Renee L. DeVarney, B.A., University of
Vermont; Teaching Certificate, George
Washington University, Head Coach/Instructor,
Physical Education And Athletics.
Ni Luh Kadek Kusuma Dewi, Associate in Performance (Dance).
Giovanna DiChiro, B.A., University of California, Santa Cruz; M.S., University of Michigan; Ph.D., University of California, Lang Visiting Professor for Issues of Social Change.
Allison Dorsey, B.A., University of San Francisco; M.A., Ph.D., University of California, Irvine, Professor of History.
Bruce A. Dorsey, B.A., Biola University; A.M., Ph.D., Brown University, Professor of History.
Jason Downs, B.A., University of Pennsylvania; Ph.D., Yale University, Visiting Assistant Professor of Biology.
Melanie Drolsbaugh, B.A., M.A., Gallaudet University, Instructor of Linguistics.
Frank H. Durgin, B.A., St. John’s College; M.A., University of Pennsylvania; Ph.D., University of Virginia, Professor of Psychology.
Eric Eaton, B.S., M.S., Ph.D., University of
Maryland, Visiting Assistant Professor of Computer Science.
Laurel Ecke, B.A., Pomona College; Ph.D., University of Pennsylvania, Laboratory Instructor of Biology.
Richard Eldridge, A.B., Middlebury College;
M.A., Ph.D., University of Chicago, Charles and Harriett Cox McDowell Professor of Philosophy.
Rachel Epstein, B.A. Reed College; M.S., Ph.D.
University of Chicago, Visiting Assistant
Professor of Mathematics.
Erich Carr Everbach, A.B., Harvard College; M.S., Ph.D., Yale University, Professor of Engineering.
Philip J. Everson, B.A., Pomona College; M.A., Ph.D., Harvard University, Professor of Statistics.
Randall L. Exon, B.F.A., Washburn University; M.A., M.F.A., University of Iowa, Sara Lawrence Lightfoot Professor of Studio Art.
Theodore B. Fernald, B.A., M.A., Ohio State University; Ph.D., University of California, Santa Cruz, Professor of Linguistics.
Sibelan Forrester, B.A., Bryn Mawr College; M.A., Ph.D., Indiana University, Professor of Russian.
Anthony Foy, B.A., University of California, Los Angeles; M.A., Ph.D., Yale University, Associate Professor of English.

## 13 Faculty and Other Instructional Staff

Christopher Fraga, B.A. Michigan State
University; M.A. New York University; Ph.D., New York University, Assistant Professor of Anthropology.
Sharon E. Friedler, B.A., Colby College; M.F.A., Southern Methodist University, Professor of Dance and Faculty Adviser for Off-Campus Study.
Gregory Frost, B.A., University of Iowa, Visiting Instructor of English Literature.
Vince Formica, B.A., St. Mary's College of Maryland; Ph.D., Indiana State University, Assistant Professor of Biology.
Lauren Fuchs, B.S., University of Connecticut, Head Coach/Instructor, Physical Education and Athletics.
Beata Anna Gallaher, M.A., Herzen State Pedagogical University of Russia, Saint
Petersburg, Russia; M.A. Humboldt University of Berlin, Germany; Ph.D., Bryn Mawr College, Visiting Lecturer of Russian.
William O. Gardner, B.A., Columbia University;
M.A., Ph.D., Stanford University, Associate Professor of Japanese.
Charles S. Garrod, B.S., Harvey Mudd College; M.S., Ph.D., Carnegie Mellon University, Visiting Assistant Professor of Computer Science.
Emily A. Gasser, B.A., Swarthmore College; Ph.D., Yale University, Visiting Professor of Linguistics.
Benjamin D. Geller, B.A., Swarthmore College; M.A., Columbia University; Ph.D., University of Maryland, Visiting Assistant Professor of Physics and Research Associate.
Farha Ghannam, B.A., M.A., Yarmouk
University; Ph.D., University of Texas-Austin, Associate Professor of Anthropology.
Jane E. Gillham, B.A., Princeton University; Ph.D., University of Pennsylvania, Associate Professor of Psychology.
Jill Gladstein, B.S., University of Wisconsin, Madison; M.S.E.D., Ph.D., University of Pennsylvania, Associate Professor of English Literature and Director of Writing Associates Program.
Dolores Luis Gmitter, B.A., St. Francis College; M.Ed., Temple University, Associate in Performance (Dance).
Stephen S. Golub, B.A., Williams College; M.A., Ph.D., Yale University, Franklin and Betty Barr Professor of Economics.
Ralph R. Gomez, B.A., M.A., University of California, Santa Cruz; Ph.D., University of New Mexico; Assistant Professor of Mathematics.
Adrián Gras-Velázquez, B.A., University of Paisley (now University of the West of Scotland); M.A. University of Barcelona; Ph.D., Durham University, Visiting Assistant Professor of Spanish.

Amy Lisa Graves, B.A., Williams College; Ph.D., Massachusetts Institute of Technology, Professor of Physics.
Joseph Gregorio, B.A., Cornell University;
M.M., Yale University, M.M., San Francisco Conservatory of Music, D.M.A. Temple University.
William Gresh Jr., B.S., Allegheny College; M.A., University of Pennsylvania, Laboratory Instructor of Biology.
Pat Gress, B.S., Towson University; M.S., West
Chester University, Head Coach/Instructor,
Physical Education And Athletics.
Logan Grider, B.F.A., Art Institute of Chicago; M.F.A., Yale University, Assistant Professor of Studio Art.
Charles M. Grinstead, B.A., Pomona College;
M.A., Ph.D., University of California, Los Angeles, Professor of Mathematics.
Daniel J. Grodner, S.B., Ph.D., Massachusetts Institute of Technology, Associate Professor of Psychology.
Cheryl P. Grood, B.A., University of Michigan;
M.A., Ph.D., University of Wisconsin, Associate Professor of Mathematics.
Carl H. Grossman, B.S., Ph.D., University of Pennsylvania, Associate Professor of Physics.
María Luisa Guardiola, Licenciada, Universitat
Autonoma de Barcelona; Ph.D., University of Pennsylvania, Professor of Spanish.
Carol J. Guess, B.S., Hope College; M.S., Ph.D.
Michigan State University, Visiting Assistant Professor of Physics.
Alexandra Gueydan-Turek, Licence, Maîtrise de Lettres Modernes, Université Jean Moulin, Lyon III; M.A., M.Phil, Ph.D., Yale University, Assistant Professor of French.
Donna T. Halley, B.S., University of Delaware, Laboratory Instructor of Chemistry.
Cynthia Perwin Halpern, B.A., Tulane
University; M.A., London School of Economics; Ph.D., Princeton University, Associate Professor of Political Science.
Janice Hamer, B.A., Harvard University; M.M., Westminster Choir College; Ph.D., City University of New York, Visiting Associate Professor of Music.
Joseph Hargadon, B.S., M.S., Ph.D., Widener University, Visiting Professor of Economics.
K. David Harrison, B.A., American University; Magister, Jagiellonian University, Poland; M.A., Ph.D., Yale University; Associate Professor of Linguistics.
Andrew D. Hauze, A.A., Simon's Rock College of Bard; B.A., Swarthmore College; Diploma, Curtis Institute of Music; Associate in Performance (Music), and Concert Manager.

## 13 Faculty and Other Instructional Staff

Virginia M. Heck, B.S., Elizabethtown College; M.S., Villanova University, Senior Lecturer in Chemistry and Biochemistry.
Jim Heller, Head Coach, Physical Education and Athletics.

Adam Hertz, B.A., University of Redlands; M.Ed., Temple University, Marian Ware Director of Physical Education and Athletics.
Sara Hiebert Burch, B.S., University of St. Andrews; Ph.D., University of Washington, Professor of Biology.
Jeffrey Himpele, B.A., University of Chicago; Ph.D., Princeton University, Visiting Assistant Professor of Anthropology.
Robinson G. Hollister Jr., B.A., Amherst College; Ph.D., Stanford University, Joseph Wharton Professor of Economics.
Steven P. Hopkins, B.A., M.A., University of California, Santa Barbara; A.M., Ph.D., Harvard University, Professor of Religion.
Kathleen P. Howard, B.A., Princeton University; Ph.D., Yale University, Professor of Chemistry and Biochemistry.
Constance Cain Hungerford, B.A., Wellesley College; M.A., Ph.D., University of California, Berkeley, Interim President of the College and Mari S. Michener Professor of Art History.
Thomas J. Hunter, B.S., University of Chicago; Ph.D., Massachusetts Institute of Technology, Associate Professor of Mathematics.
Philip N. Jefferson, B.A., Vassar College; M.A., Ph.D., University of Virginia, Centennial Professor of Economics.

John B. Jenkins, B.S., M.S., Utah State University; Ph.D., University of California, Los Angeles, Isaac H. Clothier Jr. Professor of Biology.
Eric L.N. Jensen, B.A., Carleton College; M.S., Ph.D., University of Wisconsin, Director of the Frank Aydelotte Foundation for the Advancement of the Liberal Arts, and Professor of Astronomy.
Yoshiko Jo, B.A., Seiwa College, Nishinomiya, Japan; B.A., North Central College, Illinois; M.A., University of Illinois-Urbana-Champaign, Lecturer in Japanese.
Michael Johns, B.A., New England Conservatory; M.M., D.M.A., Temple University, Associate in Performance (Music).
Aimee S.A. Johnson, B.A., University of California, Berkeley; Ph.D., University of Maryland, College Park, Professor of Mathematics.
Brian R. Johnson, B.A., Macalester College; M.A., Ph.D., University of Wisconsin-Madison, Assistant Professor of Russian.

Nina Johnson, B.A., University of Pennsylvania; M.A., New York University; Ph.D., Northwestern University, Visiting Assistant Professor of Sociology and Anthropology and Faculty Coordinator of Community Based Learning at the Lang Center for Civic and Social Responsibility.
Nora Johnson, B.A., University of California, Los Angeles; M. Div., Graduate Theological Seminary; M.A., Ph.D., University of California, Berkeley, Professor of English Literature.
Cheryl Jones-Walker, B.A., Wesleyan
University; Ph.D., University of Pennsylvania, Assistant Professor of Black Studies and Educational Studies.
Pieter M. Judson, B.A., Swarthmore College;
M.A., Ph.D., Columbia University, Isaac H. Clothier Professor of History and International Relations.
Wol A. Kang, B.A., Fu-Jen Catholic University, Taipei, Taiwan; M.A., Peking University, Beijing, China, Lecturer in Chinese.
Nicholas Kaplinsky, B.A., Reed College; Ph.D., University of California, Berkeley, Associate Professor of Biology.
Ayse Kaya, B.A. Wellesley College; MSc., Ph.D., London School of Economics, Assistant Professor of Political Science.
Doreen Kelley, B.S., Kings College; Certification in Teaching the Deaf and Hard of Hearing, LenoirRhyne College, Instructor in Linguistics.
Gwynn Kessler, B.A., University of Florida;
M.A., Ph.D., The Jewish Theological Seminary of America, Associate Professor of Religion.
Gregory King, M.F.A., Southern Methodist
University, Visiting Assistant Professor and Consortium on Faculty Diversity Fellow.
Mary Ann Klassen, B.A., Agnes Scott College; M.S., University of Wyoming, Senior Lecturer in Physics and Astronomy.
Jonathan Kochavi, B.A., University of Chicago; Ph.D., State University of New York, Buffalo; Assistant Professor of Music.
Haili Kong, M.A., People’s University, Beijing, China; Ph.D., University of Colorado, Boulder, Professor of Chinese.
Landry Kosmalski, B.A., Davidson College, Head Coach/Instructor, Physical Education And Athletics.
Elizabeth D. Krause, B.A., Cornell University;
M.A., Ph.D., Duke University, Visiting Assistant Professor of Psychology (part time).
Philip Kudish, B.A., M.S., Ph.D., University of Delaware, Academic Coordinator, Science Associate Coordinator, Laboratory Instructor of Biology.
Allen Kuharski, B.A., University of WisconsinMadison; M.A., Ph.D., University of California, Berkeley, Stephen Lang Professor of Performing Arts.

## 13 Faculty and Other Instructional Staff

Mark Kuperberg, B.A., Amherst College; M.A., Ph.D., Massachusetts Institute of Technology, Professor of Economics.
Grace M. Ledbetter, B.A., Bryn Mawr College; M.A., University of Virginia; Ph.D., Cornell University, Associate Professor of Classics and Philosophy.
Lorraine Leeson, Diploma in H. Ed., University of Bristol; M. Phil., Ph.D., University of Dublin, Trinity College, Julian and Virginia Cornell Visiting Professor, Linguistics Department.
Jeremy Lefkowitz, B.A., University of North Carolina at Chapel Hill; M.A., Washington University in St. Louis; Ph.D., University of Pennsylvania, Assistant Professor of Classics.
Gerald Levinson, B.A., University of
Pennsylvania; M.A., Ph.D., University of Chicago,
Jane Lang Professor of Music.
Brook Lillehaugen, B.A., M.A., Ph.D., University of California, Assistant Professor of Linguistics.
Margaret Inman Linn, B.S., M.Ed., University of Pittsburgh; Ph.D., University of Pennsylvania, Visiting Assistant Professor of Educational Studies.
Mark Lomanno, B.A., University of Richmond; M.A. Rutgers University; Ph.D. University of Texas-Austin, Visiting Assistant Professor of Music and Mellon Post-Doctoral Fellow.
Jeremy Loomis, B.A., University of Maryland; M.S., Miami University; M.B.A., University of Maryland, Head Coach/Instructor, Physical Education And Athletics.
Tamsin Lorraine, B.A., Middlebury College; Ph.D., University of Massachusetts, Professor of Philosophy.
Nan Ma, B.A., Peking University, China; M.A., Tsinghua University, China; M.A., University of Wisconsin, Madison, Visiting Instructor of Chinese.
José -Luis Machado, B.S., Universidad de Los Andes, Bogota; M.S., University of Vermont; Ph.D., University of Minnesota, Associate Professor of Biology.
Milton R. Machuca-Galvez, Licenciatura in Psychology, Universidad Centroamericana, San Salvador, El Salvador; M.A., Ph.D., Temple University, Visiting Assistant Professor of Latin American Studies and Anthropology.
Nelson A. Macken, B.S., Case Institute of Technology; M.S., Ph.D., University of Delaware, Howard N. and Ada J. Eavenson Professorship in Engineering.
Ellen B. Magenheim, B.A., University of Rochester; M.A., Ph.D., University of Maryland, Professor of Economics.
James Magruder, B.A., Cornell University; M.A., M.F.A., D.F.A., Yale University, Visiting Assistant Professor of Theater.

Bakirathi Mani, B.S.F.S., Georgetown
University; M.A., Jawaharlal Nehru University;
Ph.D., Stanford University, Associate Professor of English Literature.
Luciano Martínez, Licenciado en Letras,
Universidad Nacional de Mar del Plata, Argentina;
M.A., Ph.D., University of Pittsburgh, Associate Professor of Spanish.
Jocelyne Mattei-Noveral, B.S., Orsay University, Laboratory Instructor of Biology.
Stephen B. Maurer, B.A., Swarthmore College;
M.A., Ph.D., Princeton University, Professor of Mathematics.
Nsoki Mavinga, B.S. Université de Kinshasa; M.S., Ph.D., University of Alabama-Birmingham, Assistant Professor of Mathematics.
Edwin Mayorga, B.A. University of California, San Diego; MA Teachers College, Columbia
University; Ph.D., The Graduate Center, City University of New York, Assistant Professor of Educational Studies.
Arthur E. McGarity, B.S., Trinity University; M.S.E., Ph.D., Johns Hopkins University, Henry C. and J. Archer Turner Professor of Engineering.

Lisa Meeden, B.A., Grinnell College; M.S., Ph.D., Indiana University, Professor of Computer Science.
Rachel A. Merz, B.A., Western New Mexico University; M.S., University of Florida; Ph.D., University of Chicago, Walter Kemp Professor in the Natural Sciences, Professor of Biology.
Brian A. Meunier, B.F.A., University of
Massachusetts-Amherst; M.F.A., Tyler School of Art, Temple University, Professor of Studio Art.
Dale Mezzacappa, A.B., Vassar College, Visiting Instructor of English Literature.
Matthew Midkiff, B.A., M.B.A. Wilkes
University, Head Coach/Instructor, Physical Education.
Barbara Milewski, B.A., Bowdoin College; M.A., State University of New York, Stony Brook; M.F.A., Ph.D., Princeton University, Associate Professor of Music.
Stephen T. Miller, A.B., Princeton University; Ph.D., Harvard University, Associate Professor of Chemistry and Biochemistry.
Stacey Miller, B.S., University of Rhode Island; M.A., Saint Joseph’s University, Laboratory Instructor of Biology.
Lynne A. Molter, B.S., B.A., Swarthmore College; S.M., Sc.D., Massachusetts Institute of Technology, Professor of Engineering.
Thomas J. Morton, B.A., The Pennsylvania State University; Ph.D., University of Pennsylvania, Visiting Assistant Professor of Art History.
Frank A. Moscatelli, B.S., C.W. Post College; M.S., Ph.D., New York University, Edward Hicks Magill Professor of Physics.

## 13 Faculty and Other Instructional Staff

Ryan E. B. Mruczek, B.S., University of Rochester; Ph.D., Brown University, Visiting Assistant Professor of Psychology.
Michael L. Mullan, B.A., University of California, Berkeley; M.Ed., Ph.D., Temple University; Ph.D., University of Delaware, Professor of Physical Education and Sociology.
Ahmed Muhamed, B.A., University of Baghdad; M.A., University of Arizona, Visiting Lecturer of Arabic.
Braulio Muñoz, B.A., University of Rhode Island; M.A., Ph.D., University of Pennsylvania, Centennial Professor of Sociology.
Rosaria V. Munson, Laurea in Lettere Classiche, Università degli Studi, Milano; Ph.D., University of Pennsylvania, Professor of Classics.
James Murphy, B.F.A., State University of New York, Albany, Associate in Theater Performance.
Marjorie Murphy, B.A., Jersey City State
College; M.A., San Jose State University; Ph.D.,
University of California, Davis, Professor of
History and James C. Hormel Professor in Social Justice.
Matthew Murphy, B.A., Princeton University;
M.A., Georgetown University; Instructor of Political Science.
Carol Nackenoff, A.B., Smith College; M.A., Ph.D., University of Chicago, Richter Professor of Political Science.

Maya Nadkarni, B.A., M.A., Harvard University; Ph.D., Columbia University, Assistant Professor of Anthropology.
C. Kemal Nance, B.A., Swarthmore College;
M.Ed., Temple University, Associate in Performance (Dance).
Donna Jo Napoli, B.A., M.A., Ph.D., Harvard University, Professor of Linguistics.
Adam Neat, B.S., M.S., Northern Arizona University, Lecturer in Physics and Astronomy.
Tia Newhall, B.S.-SED, M.S., Ph.D., University of Wisconsin-Madison, Associate Professor of Computer Science.
Maria Newport, B.A., College of the Holy Cross; Ph.D., University of Florida, Lecturer in Chemistry and Biochemistry.
Elizabeth Nichols, B.S., University of Texas; M.A., Ph.D., Columbia University, Assistant Professor of Biology.
Catherine J. Norris, B.A., M.A., Ph.D.,
University of Chicago, Assistant Professor of Psychology.
Stephen A. O’Connell, A.B., Oberlin College; Ph.D., Massachusetts Institute of Technology, Gil and Frank Mustin Professor of Economics.
Robert S. Paley, B.S., McGill University; M.S., Ph.D., University of Michigan, Professor of Chemistry and Biochemistry.

Bhavin Parikh, Head Coach, Physical Education and Athletics.
Sangina Patnaik, B.A., University of Iowa; MA/Ph.D. candidate, University of California, Berkeley, Instructor of English Literature.
Jennifer R. Peck, B.A., Swarthmore College; Ph.D., Massachusetts Institute of Technology, Assistant Professor of Economics.
Mary Phelan, B.S., College of Saint Rose; M.A., University of Wisconsin, Visiting Assistant Professor of Studio Art.
Michael Piovoso, B.S., University of Delaware; M.S., University of Michigan; Ph.D., University of Delaware, Visiting Professor of Engineering.
Helen Plotkin, B.A., Swarthmore College; M.A., University of Michigan, Visiting Assistant Professor of Religion.
Jumatatu Poe, B.A., Swarthmore College;
M.F.A., Temple University, Assistant Professor of Dance.
Paul R. Rablen, B.A., Haverford College; M.A., Columbia University; Ph.D., Yale University, Professor of Chemistry and Biochemistry.
Charles Raff, B.A., University of Rochester; M.A., Ph.D., Brown University, Professor of Philosophy.
Michael J. Reay, B.A., Churchill College; M.A., Ph.D., University of Chicago, Assistant Professor of Sociology.
Keith Reeves, B.A., Swarthmore College; Ph.D., University of Michigan, Associate Professor of Political Science.
Bob Rehak, B.A., Eastern Michigan University; M.A., University of North Carolina; Ph.D. Indiana University, Associate Professor of Film and Media Studies.
Patricia L. Reilly, B.A., University of California; M.A., Bryn Mawr College; Ph.D., University of California, Associate Professor of Art History.
Michele Reimer, B.A., Yale University; M.S.W., Smith College School for Social Work; Ph.D., Temple University, Assistant Professor of Psychology.
K. Ann Renninger, B.A., University of Pennsylvania; M.A., Ph.D., Bryn Mawr College, Professor of Educational Studies.

Micheline Rice-Maximin, Licence and Maitrise Universite de la Sorbonne, Paris-IV; M.A. University of North Texas; Ph.D., University of Texas-Austin, Associate Professor of French.
Ellen M. Ross, B.A., Princeton University; M.A., Ph.D., University of Chicago, Associate Professor of Religion.
Tomoko Sakomura, B.A., Keio University; M.A., Ph.D., Columbia University, Associate Professor of Art History.

## 13 Faculty and Other Instructional Staff

Nathan Sanders, S.B., Massachusetts Institute of
Technology; M.A., Ph.D., University of
California, Santa Cruz, Visiting Assistant Professor of Linguistics.
Sarah Sanford, B.A., Swarthmore College; Certificate, École Internationale de Théâtre Jacques Lecoq, Visiting Instructor of Theater.
Jessica L. Sarver, B.S., Penn State, Behrend; Ph.D., University of Pittsburgh, Visiting Assistant Professor of Chemistry and Biochemistry.
Matthew Saunders, B.A., Virginia Polytechnic Institute; M.F.A., Yale University, Assistant Professor of Theater.
Christopher Schad, B.A., Swarthmore College; M.A., University of Michigan; J.P., University of Michigan Law School, Visiting Lecturer in Japanese.
Peter J. Schmidt, B.A., Oberlin College; M.A., Ph.D., University of Virginia, The William R. Kenan, Jr., Professorship, Professor of English Literature.
Christopher Schnader, A.B., Dartmouth College; M.A., Ph.D., University of Pennsylvania, Lecturer in German Studies.
Allen M. Schneider, B.S., Trinity College; Ph.D., Indiana University, Centennial Professor of Psychology.
Jodi Schottenfeld-Roames, B.S., King’s College; Ph.D., Princeton University, Visiting Assistant Professor of Biology.
Christine Schuetze, B.A., The Colorado College; Ph.D., University of Pennsylvania, Assistant Professor of Anthropology.
Barry Schwartz, B.A., New York University;
M.A., Ph.D., University of Pennsylvania, Dorwin P. Cartwright Professor of Social Theory and Social Action, Professor of Psychology.
Matthew Sedlock, B.A., Ph.D., Johns Hopkins University, Visiting Assistant Professor of Statistics.
Peggy Ann Seiden, B.A., Colby College; M.A., University of Toronto; M.L.I.S., Rutgers University, College Librarian.
Anisa H. Schardl, B.S., Massachusetts Institute of Technology; Ph.D. candidate, expected September, 2013, University of Massachusetts, Amherst, Visiting Instructor of Linguistics.
Andrew J. Shanefield, B.M., New York
University; M.S., Queens College, City University of New York; M.M., West Chester University; Ed.D Widener University, Associate in Performance (Music).
Helene Shapiro, B.A., Kenyon College; Ph.D., California Institute of Technology, Professor of Mathematics.
Adriano Shaplin, B.A., Sarah Lawrence College; M.A., University of California, Berkeley. Visiting Instructor of Theater.

Kenneth E. Sharpe, B.A., Dartmouth College;
M.S., London School of Economics and Political Science; Ph.D., Yale University, William R. Kenan Jr. Professor of Political Science.
Jon Sherman, B.A., Temple University, Associate in Performance (Dance).
Don H. Shimamoto, B.S., Stanford University; M.A., Ph.D., Brandeis University, Professor of Mathematics.
Faruq M.A. Siddiqui, B.S., Bangladesh University of Engineering and Technology; M.S., Ph.D., University of Pittsburgh, Isaiah M. Williamson Professor of Civil and Mechanical Engineering.
Les Sikos, B.A., University of Florida; M.A., California Institute of Integral Studies; M.A., Ph.D., University of Colorado, Boulder, Visiting Assistant Professor (Part-Time) \& Post-doctoral Research Fellow.

Sunka Simon, M.A., Universitadt Hamburg;
Ph.D., Johns Hopkins University, Professor of German.
Kathleen K. Siwicki, B.S., Brown University; M.Phil., Cambridge University; Ph.D., Harvard University, Howard A. Schneiderman Professor of Biology.
Benjamin Lenox Smith, B.A., University of
Virginia; M.A., Harvard University; Ph.D., Harvard University, Visiting Assistant Professor of Arabic.
Tristan L. Smith, B.A., University of Chicago; Ph.D., California Institute of Technology, Visiting Assistant Professor of Physics.
Lee A. Smithey, B.A., Emory University; M.A., Ph.D., University of Texas-Austin, Associate Professor of Sociology.
Lisa Smulyan, B.A., Swarthmore College; M.A.T., Brown University; Ed.D., Harvard Graduate School of Education, Professor of Educational Studies.
Eric Song, B.A., Pomona College; M.A., University of Chicago; Ph.D., University of Virginia, Assistant Professor of English Literature.
Lori Sonntag, B.A., Mount Holyoke College, Laboratory Instructor of Chemistry and Biochemistry.
Kirsten E. Speidel, B.A., Oberlin College; M.A., Johns Hopkins University, Lecturer in Chinese.
Thomas A. Stephenson, B.S., Furman University; Ph.D., University of Chicago, Provost and James H. Hammons Professor of Chemistry and Biochemistry.
Lynne Steuerle Schofield, B.A., Swarthmore
College; M.A., Ph.D., Carnegie Mellon
University, Assistant Professor of Statistics.
Edward I. Steinberg, B.A., Rutgers University; M.A., Ph.D. New York University, Visiting Assistant Professor of Economics.

## 13 Faculty and Other Instructional Staff

K. Elizabeth Stevens, B.A., Reed College; M.F.A., Yale School of Drama, Assistant Professor of Theater.
I Nyoman Suadin, Associate in Performance (Music and Dance).
Atsuko Suda, B.A., Obirin University, Tokyo, Japan; M.A., University of Arizona, Lecturer in Japanese.
Laila Swanson, B.A., Trondheim School of Business, Trondheim, Norway; M.F.A., Temple University, Assistant Professor of Theater.
Janet C. Talvacchia, A.B., M.A., Bryn Mawr
College; Ph.D., University of Pennsylvania, Professor of Mathematics.
Ron Tarver, B.A., Northeastern State University, Visiting Assistant Professor of Studio Art.
Krista Thomason, B.A., University of North
Carolina-Greensboro; M.A., Ph.D., University of Illinois-Urbana-Champaign, Assistant Professor of Philosophy.
Jamie A. Thomas, A.B., Washington University in St. Louis; Ph.D., Michigan State University, Visiting Professor of Linguistics.
Dominic Tierney, B.A., M.Phil., Ph.D., Oxford
University, Associate Professor of Political Science.
Alex Torra, B.A., University of Pennsylvania; M.F.A., Brown University, Visiting Assistant Professor of Theater.
William N. Turpin, M.A., University of St.
Andrews; M.A., University of Toronto; Ph.D., Cambridge University, Professor of Classics.
Richard Valelly, B.A., Swarthmore College; Ph.D., Harvard University, Claude C. Smith '14 Professor of Political Science.
Felipe Valencia, B.A., Universidad Complutense de Madrid, Spain; M.A., Ph.D., Brown University, Visiting Assistant Professor of Spanish.
Elizabeth A. Vallen, B.A., Case Western Reserve University; Ph.D., Princeton University, Professor of Biology.
Patricia Vargas, M.A., Inca Garcilaso de la Vega University, Lima, Peru, Lecturer in Spanish.
Christopher Vecsey, B.A., Amherst College; Ph.D., University of Pennsylvania, Visiting Assistant Professor of Biology.
Stephen Viscelli, B.A., Colgate University; Ph.D., Indiana University, Visiting Assistant Professor of Sociology.
Amy Cheng Vollmer, B.A., William Marsh Rice University; Ph.D., University of Illinois, Professor of Biology.
Eric R. Wagner, B.A., Connecticut College; M.Ed., Temple University, Head Coach/Instructor, Physical Education and Athletics.

Mark I. Wallace, B.A., University of California, Santa Barbara; M.Div., Princeton Theological Seminary; Ph.D., University of Chicago, Professor of Religion.
Steve C. Wang, B.S., Cornell University; M.S., Ph.D., University of Chicago, Associate Professor of Statistics.
Tao Wang, B.A., Tsinghua University; M.A., Ohio State University; Ph.D., Princeton University, Assistant Professor of Economics.
Andrew Ward, A.B., Harvard University; Ph.D., Stanford University, Professor of Psychology.
Martin O. Warner, B.A., University of North Carolina-Chapel Hill; M.A., Duke University, Registrar.
Kevin Webb, B.S., Georgia Institute of
Technology; M.S., Ph.D., University of California, San Diego, Instructor of Computer Science.
Tessa Victoria Wegener, B.A., Bethany College;
M.A., University of Kentucky; Ph.D., Georgetown University, Visiting Assistant Professor of German.
Robert E. Weinberg, B.S., Cornell University; M.A., Indiana University; Ph.D., University of California, Berkeley, Professor of History.
Philip M. Weinstein, B.A., Princeton University;
M.A., Ph.D., Harvard University, Alexander Griswold Cummins Professor of English Literature.
Kevin D. Welch, B.S., Gettysburg College; Ph.D., University of Virginia, Visiting Assistant Professor of Chemistry and Biochemistry.
Hansjakob Werlen, M.A., University of Notre Dame; Ph.D., Stanford University, Professor of German.
Patricia White, B.A., Yale University; Ph.D., University of California, Santa Cruz, Professor of Film and Media Studies.
Tyrene White, B.A., Middle Tennessee State University; M.A., Ph.D., Ohio State University, Professor of Political Science.
Thomas Whitman, B.A., Swarthmore College; Ph.D., University of Pennsylvania, Professor of Music.
Richard Wicentowski, B.S., Rutgers College, Rutgers University; M.S., University of Pittsburgh; Ph.D., Johns Hopkins University, Associate Provost for Educational Programs and Curriculum Support and Associate Professor of Computer Science.
Craig Williamson, B.A., Stanford University; M.A., Harvard University; Ph.D., University of Pennsylvania, Alfred H. and Peggi Bloom Professor of English Literature.
Sarah Willie-LeBreton, B.A., Haverford College; M.A., Ph.D., Northwestern University, Professor of Sociology.

## 13 Faculty and Other Instructional Staff

Liliya A. Yatsunyk, S.D., Chernivtsi State University, Ukraine; Ph.D., University of Arizona, Associate Professor of Chemistry and Biochemistry.
Carina Yervasi, B.A., Hofstra University; Ph.D., City University of New York, Associate Professor of French.
Benjamin Ylvisaker, B.S., M.S., Carnegie Mellon University; Ph.D., University of Washington,
Visiting Assistant Professor of Computer Science.
Tsvetelina Yordanova, M.A., Middlebury
College; M.A., Princeton University; M.A.,
London Teacher Training College; Ph.D., Sofia
University, Lecturer in Russian.
Matthew Zucker, B.A., Vassar College; Ph.D., Carnegie Mellon University, Assistant Professor of Engineering.

### 13.3 Divisions, Departments, and Programs <br> Below are the divisions of the college for administrative purposes; for the purposes of the distribution graduation requirement see section 7.2. <br> 13.3.1 Division of the Humanities Sibelan Forrester Chair <br> Art <br> Tomoko Sakomura, Chair

## Asian Studies

William Gardner, Chair
Classics
Grace Ledbetter, Chair
English Literature
Nora Johnson, Chair
Film and Media Studies
Patricia White, Chair
History
Timothy J. Burke, Chair
Mathematics and Statistics
Philip Everson, Chair
Modern Languages and Literatures
Haili Kong, Chair
Music and Dance
Barbara Milewski, Chair
Sharon Friedler, Director of Dance
Philosophy
Tamsin Lorraine, Chair
Psychology
Andrew H. Ward, Chair (fall semester)
Jane E. Gilham Chair (spring semester)

## Religion

Steven P. Hopkins, Chair

## Theater

Allen J. Kuharski, Chair
Laila Kjoersvik-Swanson, Co-Chair, Production
13.3.2 Division of the Natural Sciences and

## Engineering

Janet Talvacchia, Chair
Biology
Amy Vollmer, Chair
Chemistry and Biochemistry
Robert S. Paley, Chair
Computer Science
Lisa Meeden, Chair
Engineering
Carr Everbach, Chair

## Linguistics

Theodore B. Fernald, Chair
Mathematics and Statistics
Philip Everson, Chair
Philosophy
Tamsin Lorraine, Chair
Physics and Astronomy
Michael Brown, Chair
Psychology
Andrew H. Ward, Chair (fall semester)
Jane E. Gilham Chair (spring semester)
13.3.3 Division of the Social Sciences Bruce Dorsey, Chair

Economics
Ellen Magenheim, Chair
Educational Studies
Lisa Smulyan, Chair

## Engineering

Carr Everbach, Chair
History
Timothy J. Burke, Chair
Linguistics
Theodore B. Fernald, Chair
Mathematics and Statistics
Philip Everson, Chair
Philosophy
Tamsin Lorraine, Chair
Political Science
Carol Nackenoff, Chair
Psychology
Andrew H. Ward, Chair (fall semester)
Jane E. Gilham Chair (spring semester)

## 13 Faculty and Other Instructional Staff

Sociology and Anthropology
Sarah Willie-LeBreton, Chair

## Interdisciplinary Programs

Jean-Vincent Blanchard, Chair

Rose Maio, Administrative Coordinator for the
Divisions of Humanities, Social Sciences, and
Natural Sciences and Engineering
13.3.4 Interdisciplinary Programs

Jean-Vincent Blanchard, Chair
Asian Studies
William Gardner, Chair
Black Studies
Sydney Carpenter, Coordinator
Cognitive Science
K. David Harrison, Coordinator

## Comparative Literature

Jean-Vincent Blanchard, Coordinator
Environmental Studies
Elizabeth Bolton, Coordinator
Gender and Sexuality Studies
Gwynn Kessler, Coordinator
Interpretation Theory
Mark Wallace, Coordinator
Islamic Studies
Khaled Al-Masri, Coordinator
Latin American Studies
Milton Machuca-Galvez, Coordinator
Medieval Studies
Craig Williamson, Coordinator
Peace and Conflict Studies
Lee Smithey, Coordinator
Public Policy
John Caskey, Coordinator

### 13.4 Standing Committees of the Faculty

Academic Requirements
Assessment Planning Committee
Faculty Advisory Council to Dean of Admissions
Council on Educational Policy
Committee on Faculty Procedures
Cooper Foundation Committee
Curriculum Committee
Fellowships and Prizes
Health Sciences Advisory
Lang Center Advisory Board
Library
Off-Campus Study

Physical Education and Athletics Advisory
Committee
Promotion and Tenure
Research Ethics

### 13.5 Other Committees With Faculty Representation

Advisory Council to the Dean
Ad Hoc Committee on ADA Planning (as needed) Ad Hoc Committee on Documented Disabilities Institutional Animal Care and Use Committee College Budget Committee
College Judiciary Committee
Crum Woods Stewardship Committee
Cultural Diversity
Equal Opportunity Advisory Committee
Faculty and Staff Benefits
Honorary Degrees
Howard Hughes Medical Institute
Sager
Swarthmore Foundation

## 14 Administration

### 14.1 Administrative Structure

## President

Interim President
Vice President for College and Community Relations and Executive Assistant to the President
Eugene M. Lang Center for Civic and Social Responsibility
Title IX
Vice President and Dean of Admissions
Admissions
Secretary of the College and Vice President for Communications

Communications Office
Vice President for Development and Alumni Relations

Advancement Services
Advancement Operations
Alumni and Gift Records
Alumni Relations
Development
Annual and Parent Giving
Capital Giving
Corporate, Foundation, and Government Relations
Donor Relations
Events Planning
Gift Planning
Research
Vice President for Finance and Administration
Associate Vice President for Finance and Treasurer

Controller
Business Office
Office Services
Post Office Student Accounts
Financial Aid Office
Bookstore
Dining Services
Institutional Research
Institutional Risk Management, Legal Affairs,
and Equal Opportunity Office
Investment Office
Public Safety
Vice President for Facilities and Capital
Projects
ADA Program Coordinator
Environmental Services
Grounds
Lang Performing Arts Center
Occupational and Environmental Safety
Maintenance
Planning and Construction
Scott Arboretum
Space Reservation/Materials
Handling/Event Support
Summer Programs

## Vice President for Human Resources

Human Resources
Payroll
Provost
Associate Provost for Educational Programs and Curriculum Support
Associate Provost for Faculty Development and Outreach
Executive Assistant to the Provost
Center for Social and Policy Studies
Information Technology Services
Libraries
Cornell Science and Engineering Library
Friends Historical Library
McCabe Library
Swarthmore College Peace Collection
Underhill Music and Dance Library
Off-Campus Study Office
Physical Education and Athletics

## Dean of Students

Associate Dean for Academic Affairs
Associate Dean of Diversity, Inclusion, and Community Development
Academic Support
Black Cultural Center
Career Services
Counseling and Psychological Services
Disability Services
Fellowships and Prizes
Gender Education
Health Sciences Office
Health Services
Intercultural Center
Registrar's Office
Residential Life
Student Activities
Student Conduct

### 14.2 Admissions Office

James L. Bock III, B.A., Swarthmore College; M.Ed., University of Virginia, Vice President and Dean of Admissions.
Yvetta Moat, Administrative Coordinator.
Zarinah James, B.A., Brown University;
M.S.Ed., University of Pennsylvania, Associate Dean of Admissions.
Roberto Rivas, B.A., Williams College; M.A., Middlebury College, Senior Assistant Dean of Admissions.
Andrea Pien, B.A., Swarthmore College, Assistant Dean of Admissions.
Mikael Yisrael, B.S., Cornell University, Assistant Dean of Admissions.
Ruby Bhattacharya, B.A., Swarthmore College, Admissions Counselor.
Windsor Jordan Jr., B.A., Swarthmore College; M.A., Lehigh University, Admissions Counselor.

John Wesley Willison, B.A., Swarthmore College, Admissions Counselor.
Margaret T. Kingham, B.A., Mary Washington College, Admissions Officer.
Kathleen Memmo, B.A., Wilkes University, Systems Support Analyst.
Carolyn Moir, Operations Coordinator.
Demetria Hamilton; Stacy Jordan; Kevin
Kensey; Susan Wigo, Administrative Assistants.
Sharon Hartley, A.A., Neumann College, Receptionist.

### 14.3 Bookstore

Kathleen K. Grace, B.S., Elizabethtown College; M.B.A., Philadelphia University, Director.

Steve Levin, B.A., Temple University, Book Manager.
Daniel D. Darkow, B.S., Elizabethtown College, Operations Manager.
Michael Harper and Martha Townsend, Bookstore Assistants.

### 14.4 Career Services

Nancy Burkett, B.A., M.A., University of
Tennessee; Ed.S., College of William and Mary, Director.
Erin Massey, B.A., Kutztown University; M.Ed., Widener University, Associate Director.
Jennifer Barrington, B.A., Gettysburg College; M.Ed., University of Delaware, Assistant Director (job share).
Kristie Beucler, B.A., Gettysburg College; M.S., West Chester University, Assistant Director (job share).
Marissa Deitch, B.S., St. Joseph’s University; M.S., Villanova University, Assistant Director, Public Service and Internships.

Lisa Maginnis, Administrative Assistant.
Pattie Kim, B.A., Haverford College; M.S.Ed., University of Pennsylvania, Program Assistant.

### 14.5 Center for Social and Policy Studies

Keith W. Reeves, B.A., Swarthmore College; Ph.D., University of Michigan, Director.
Cathy Wareham, A.S., Wesley College, Administrative Assistant.
Gudmund R. Iversen, M.A., University of
Michigan; Ph.D., Harvard University, Professor
Emeritus of Statistics, Former Director and Resident Statistician.

### 14.6 Communications Office

Nancy Nicely, B.A., College of William and Mary; M.S., University of Pennsylvania, Secretary of the College and Vice President for Communications.
Mark Anskis, B.A, Susquehanna University; M.J.
Temple University, Associate Director for Media Communications.
Carol Brévart-Demm, B.A., University College, London, Associate Director for Editorial;
Associate Editor of the Swarthmore College Bulletin.
Carrie Compton, B.A., University of WisconsinMadison; M.A. Temple University, Writer/Editor; Class Notes Editor of the Swarthmore College Bulletin.
Ryan Dougherty, B.A., Pennsylvania State University; M.S., Chestnut Hill College, Senior Writer/Editor.
Randall Frame, B.A., California University of Pennsylvania; M.A., Wheaton College, Director of Advancement Communications.
Alisa Giardinelli, B.A., Pennsylvania State University; M.A., Temple University, Director of Web and Media Communications.
Laurence Kesterson, U.S. Army/Air Force Still Photographic Specialist School, Photographer/Videographer.
Sherri Kimmel, B.S., M.A., Bowling Green State
University, Director of Editorial and Creative
Services; Editor of the Swarthmore College Bulletin.
Steven Lin, B.A., University of Maryland, Web Designer.
Janice Merrill-Rossi, Administrative Assistant.
Jennifer Piddington, B.A., Long Island
University, Administrative Coordinator.
Alexander Savoth, B.F.A., Syracuse University, Multimedia Editor.
Phillip Stern, B.A., Swarthmore College; M.F.A., University of Pennsylvania, Associate Director for Design; Designer of the Swarthmore College Bulletin.

Amanda Whitbred, B.A., Lafayette College, Associate Director of Advancement Communications.

### 14.7 Controller's Office

## Business Office

Alice Turbiville, B.A., New School University;
M.B.A., Drexel University; C.P.A., Controller.

Joseph Cataldi, B.S., LaSalle University; M.B.A., LaSalle University, Associate Controller.
Beth Baksi, B.S., Shippensburg State College; M.B.A., St. Joseph’s University, Assistant Controller.
Robert Lopresti, B.S., Rutgers; C.P.A., Manager of Financial Information Systems.
Denise A. Risoli, B.S., LaSalle University, Restricted Funds Accountant.
Nancy E. Sheppard, Manager, Business Office Operations.
Patricia Hearty, Accounts Receivable Clerk.
Barbara Turner, Purchasing Coordinator.
Deborah McGinnis, Accounts Payable Clerk. Office Services
Cheryl Robinson, A.A.S., Delaware County Community College, Manager.
Tarsia Duff, A.A.S., Delaware County Community College, Administrative Assistant. Post Office
Vincent J. Vagnozzi, B.S., West Chester University, Supervisor.
David Robinson, B.S. Widener University, Assistant Supervisor.
Russ Quann, Vincent O’Connell, and Tom Dibattista, Clerks.
Student Accounts
Linda Weindel, Student Accounts Manager.
Maria McBride, Student Accounts Assistant.

### 14.8 Counseling and Psychological Services (CAPS)

David Eric Ramirez, B.A., M.A., Ph.D., University of Texas, Director.
Heejin Kim, B.A., M.A., Chung-Ang University, Seoul, Korea; M.A., Ph.D., Bryn Mawr College, Clinical Psychologist and Assessment Supervisor.
Stacy Green, B.A., Ithaca College; M.S.S, Ph.D.
candidate, Bryn Mawr College Graduate School of Social Work and Social Research, Clinical Social Worker \& Social Work Supervisor.
Diane C. Shaffer, B.A., M.A., Trinity College;
Psy.D., Immaculata Univeristy, Clinical Psychologist \& Groups Coordinator.
Joseph C. Hewitt, B.A., University of
Pennsylvania; D.O., University of Medicine and Dentistry, New Jersey School of Osteopathic Medicine, Consulting Psychiatrist.

Patricia Fischette, B.A., Haverford College; M.L.S.P., M.S.W., Doctoral Candidate, Bryn Mawr College Graduate School of Social Work \& Social Research, Post Graduate Clinical Fellow.
Marin Smith, B.A., Harvard University; M.S., Mercy College; M.S.S., Bryn Mawr College Graduate School of Social Work and Social Research, Post Graduate Clinical Fellow.
Hannah Ebin, B.A., Yale University; M.A., Doctoral Candidate, Bryn Mawr College, Clinical Psychology Pre-doctoral Intern.
Noam Fliegelman, B.A., Swarthmore College; M.A., Doctoral Candidate, Widener University Institute for Graduate Clinical Psychology, Clinical Psychology Pre-doctoral Intern.
Errika Goslin, B.A., American University;
Masters Candidate, Bryn Mawr College Graduate School of Social Work and Social Research, Clinical Intern.
Theresa D. McGrath, Administrative Assistant.

### 14.9 Dean's Office

H. Elizabeth Braun, B.A., Mary Washington College; M.A., Boston University; Ph.D., University of Massachusetts, Amherst, Dean of Students.
Amer F. Ahmed, B.A., Miami University, Ohio; M.A., Indiana University, Assistant Dean and Director of the Intercultural Center.
Diane Downer Anderson, B.A., Montclair State College; M.S., Drexel University; Ph.D.,
University of Pennsylvania, Associate Dean for Academic Affairs and Associate Professor.
Katherine Clark, B.A., Smith College, Coordinator for the Center for Innovation and Leadership.
Elizabeth Derickson, B.A., Swarthmore College; M.A./Ph.D. candidate, Princeton University, Assistant Dean for Academic Affairs.
Michael Elias, B.A., Wilkes University; M.S., Drexel University, Assistant Director of Student Activities, Leadership and Greek Life.
Rachel Head, B.S.W., Florida State University; Ed.M., University of South Florida, Assistant Dean and Director of Student Engagement.
Leslie Hempling, B.A., Oberlin College; M.S.S, Bryn Mawr College, Coordinator of Learning Resources and Student Disability Services.
Karen M. Henry, B.A., Swarthmore College; M.S.S., Bryn Mawr College Graduate School of Social Work; Ph.D., Temple University, Assistant Dean.
Melissa Mandos, B.A., Wesleyan University; Master of City and Regional Planning, Rutgers University, Fellowships and Prizes Adviser.
Jennifer Marks-Gold, B.S., Drexel University; Ed.M., Cabrini College, International Students and Scholars Adviser.

Nathan P. Miller, B.A., St. Olaf College; M.S., Minnesota State University, Mankato, Dean of the Senior Class and Director of Student Conduct.
Liliana Rodriguez, B.A., Williams College; M.S., Ph.D., University of Massachusetts-Amherst, Associate Dean of Diversity, Inclusion, and Community Development.
Angela "Gigi" Simeone, A.B., Wellesley College; Ed.M., Boston University; Ph.D., University of Pennsylvania, Health Sciences Adviser and Prelaw Adviser.
Isaiah J. Thomas, B.A. The Colorado College; M.A. University of Maryland, Assistant Director of Residential Communities.
Susan Lewis, B.A., University of Illinois, Administrative Coordinator.
Betsy Durning; Ruthanne Krauss; Jennifer Lenway, M.S.W. Portland State University; Devonia "Bonnie" Lytle; Diane E. Watson; Ben Wilson, Administrative Assistants.

### 14.10 Development and Alumni Relations

Karl W. Clauss, B.A., Colgate University, Vice President, Development and Alumni Relations. Connie Baxter, Administrative Coordinator.
14.10.1 Advancement Services

Advancement Systems
Dierdre W. Konar, B.S., Babson College; M.S., Drexel University, Director.
Barbara Mann, B.S., West Chester University, Manager.
Mimi Weiler, Manager.
Alumni and Gift Records
Ruth Krakower, B.F.A., University of Hartford, Hartford School of Art, Director.
Jane Pedrick, B.A., Franklin \& Marshall College, Records Information Specialist.
Trish Tancredi, Gift Specialist.
Marianne Kennedy, Gift Recorder.
Stephanie Specht, Alumni Recorder.
Catherine Powell, B.S., Rosemont College, Alumni Recorder.
Theresa Rodriguez, Administrative Assistant.
14.10.2 Alumni Relations

Lisa Lee, B.A., Swarthmore College; M.Ed., Boston University, Director.
Geoff Semenuk, B.A., University of Delaware, Associate Director.
Wendy Waltman, B.A., Lock Haven University, Associate Director.
Caitlin Halloran, B.A. Mass Communication, UNC Asheville, Assistant Director
Julie DiPietro, Administrative Assistant.

### 14.10.3 Development

Donald R. Cooney, B.A., Gettysburg College, Director.
Mary Carr, A.B.A., Keystone School of Business, Administrative Assistant.
Annual and Parent Giving
Lisa Shafer, B.A. Wilkes University; M.A., West Chester University, Director.
Alexandria L. Craig, B.S., B.A., Gettysburg
College, Associate Director, Parent Giving.
Carol Stuart, Administrative Assistant.
Kara McDonald, B.S., Ohio University,
Associate Director, Reunion Giving.
Fritz Ward, B.A., Eckerd College; M.F.A., University of North Carolina-Greensboro, Associate Director, Annual and Parent Giving.
Meghan Harker, B.A., Columbia University, Assistant Director, Annual Giving.
Brian T. Myers, B.A. Gettysburg College; M.A. University of Maryland, College Park, Associate Director, Annual Giving.
Sarah Thompson, B.A., New College of Florida, Development Fellow,
Deborah J. Mulligan, Administrative Assistant. Leadership Giving
Kay Fairs, B.A., University of Lancaster, England; M.R.P., University of Pennsylvania, Director.
Kevin Brown, B.A., University of Richmond, Associate Director.
Susan Lathrop, B.A., Wellesley College; M.Ed., Smith College; B.S., University of Delaware, Associate Director.
Liam McAlpine, B.A., Wesleyan University, Associate Director.
Kozue Tsunoda, B.A., Tokyo University of Foreign Studies; M.A., Hiroshima University; Ph.D., University of Maryland, College Park, Associate Director.
Alex Unger, B.A., University of Pennsylvania; M.P.A., New York University, Associate Director.

Sandy Byers, Administrative Assistant.
Sponsored Programs and Institutional Relations
Kenneth Dinitz, B.A., Swarthmore College;
M.A., The New School University, Director.

Tania Johnson, B.A., M.A., University of Pennsylvania, Associate Director.
Joseph Watson, B.S. West Chester University; M.S. Neumann University, Grants Manager.

Deborah L. Thompson, B.S., Kutztown
University, Data Coordinator.
Donor Relations and Events
Melissa M. Pizarro, A.B., Lafayette College, Director.

Nikki Senecal, A.B., Bryn Mawr College; Ph.D., University of Southern California, Associate Director.
Darin Pfeifer, B.S., University of South Dakota, Events Manager.
Millie Dappollone, A.A.S., Community College of Philadelphia, Administrative Assistant. Gift Planning
Patti Bender, B.S., University of Minnesota;
M.A., St. Mary's University, Associate Director

Renee P Atkinson, B. A., Business
Administration, Neumann University, Gift
Planning Administrator
Research
Florence Ann Roberts, B.A., Gettysburg College;
M.S., University of Pennsylvania, Director.

Amanda M. Hrincevich, B.A., Marist College; J.D., Widener University School of Law, Associate Director.
Barbara Fleming, B.A., Tufts University, Research Associate/Writer.
Kay Watson, A.A.S., Pennsylvania State University, Research Specialist.

### 14.11 Dining Services

Linda McDougall, B.A., Temple University, Director of Dining Services.
Janet A. Kassab, Director of Purchasing and Menu Planning.
Benton Peak, A.S., Bucks County Community College, Executive Chef.
Augustine Ruhri, Cash Operations Manager. Therese Hopson, Front-of-House Manager.
Lynn Grady, Office Manager.
Barbara Boswell, Catering Manager.
Lisa Scolaro, Culinary Institute of America, Catering Chef.

### 14.12 Facilities Management

C. Stuart Hain, B.A., Roanoke College, Vice President for Facilities and Capital Projects.
Paula Dale, B.A., Wake Forest University; M.A., University of North Carolina-Chapel Hill, Executive Assistant, Facilities.
Mary K. Hasbrouck, B.A., Oberlin College, Technology Coordinator.
Christi A. Pappert, Administrative Coordinator.
Jinny Schiffer, A.B., Smith College; M.S., Temple University, Environmental Health \& Safety Officer.
Susan Smythe, B.A., Wesleyan University, ADA
Program Coordinator.
Environmental Services
Patti Shields, Director of Environmental Services.
Don Bankston, Supervisor.

Brian Vazquez, Supervisor.
Grounds
Jeff Jabco, B.S., Pennsylvania State University; M.S., North Carolina State University, Director of Grounds/Coordinator of Horticulture.
Steve Donnelly, Athletic Fields Supervisor.
Paul Eriksen, B.S., University of Delaware, Garden Supervisor.
Chuck Hinkle, B.S., Temple University, Garden Supervisor.
Bill Costello, A.S., Temple University and A.S., Pennsylvania State University, I.P.M.
Coordinator/Gardener II.
Dwight Darkow, A.S., Williamsport Area Community College, Gardener.
Maintenance
Ralph P. Thayer, Director of Maintenance.
Bill Maguire, Manager, Maintenance/Trades. Carolyn Vance, Workbox Coordinator.
Didi Beebe, B.A. Gettysburg College, Information Specialist/Accounting.
Bob McCaughern, Supervisor.
Bernard Devlin, Supervisor.
Planning and Construction
Janet M. Semler, B.S., Pennsylvania State
University; M.S., Drexel University, Director of Planning and Construction.
Maria E. Lucoff, B.S., Columbia Union College;
M.S., Drexel University, Associate Project

Manager/Interior Designer.
Michael Boyd, Senior Project Manager.
Tom Cochrane, Senior Project Manager for Engineering Systems.
Woodford Frazier, A.S., Montgomery County
Community College, Facilities Information
Manager.
Space Reservation/Materials Handling/Event Support
Patricia Maloney, B.A., Pennsylvania State
University, Facilities Coordinator and Director of Summer Programs.
Claire Ennis, Facilities Management Coordinator.

### 14.13 Finance and Administration Office <br> Gregory N. Brown, B.A., Wesleyan University; M.P.A., University of New Haven, Vice President for Finance and Administration. <br> Eileen E. Petula, B.S., Indiana University of Pennsylvania; C.P.A., Associate Vice President for Finance and Treasurer. <br> Lois L. Falzone, Administrative Coordinator.

### 14.14 Financial Aid Office

Laura Talbot, B.A., Wheaton College, Director of Financial Aid.

## 14 Administration

Judith A. Strauser, B.S., B.A., Gannon
University, Director of Operations, Financial Aid.
Kristin Moore, B.S., St. Francis University;
M.A., Indiana University of Pennsylvania,

Associate Director of Financial Aid.
Laurie Heusner, B.A., M.A., University of Pennsylvania, Assistant Director of Financial Aid.
John P. Haggerty, B.A. Cabrini College,
Assistant Director of Financial Aid
Catherine Custer, B.S., Lock Haven University; Gina Fitts, Administrative Assistants.

### 14.15 Health Sciences/Prelaw Advisory Program

Gigi Simeone, A.B., Wellesley College; Ed.M., Boston University; Ph.D., University of Pennsylvania, Health Sciences Adviser.
Jennifer Lenway, M.S.W., Portland State University, Administrative Assistant.

### 14.16 Health Services

Beth Kotarski, M.S.N., C.R.N.P., University of Pennsylvania, Nurse Practitioner, Director.
Suzie H. Long, M.S.N., C.R.N.P., University of Pennsylvania, Nurse Practitioner.
Maria Warnick, M.S.N., C.R.N.P., Jefferson University, Nurse Practitioner.
Cheryl Donnelly, R.N., B.S.N., West Chester University, Nurse.
Ethel Kaminski, R.N., B.S.N., Gwynedd Mercy College; M.S.N., University of Pennsylvania, Nurse.
Eileen Stasiunas, R.N., B.S.N., Villanova University, Nurse.
Nina Harris, B.A., University of Pennsylvania, Violence Prevention Educator and Advocate
Joshua Ellow, M.S., Chestnut Hill College,
Alcohol and Other Drug Counselor
Satya Nelms, B.A., Wesleyan University, Student Wellness Coordinator.
Deborah Westerling, B.S., R.D., L.D.N., West
Chester University, Nutritionist.
Mary Jane Palma, Medical
Administrator/Insurance Coordinator.

### 14.17 Human Resources

Pamela Prescod-Caesar, B.S., Lesley College; M.B.A., Curry College, Vice President, Human Resources.
Michele Mocarsky, PHR., B.A. Arcadia University, Compensation and Benefits Director. Kimberly Fremont, B.S., St. Joseph's University; M.A., George Washington University; Ph.D., Temple University, Human Resources Information Systems Specialist.

Jillian Theorgood, B.A. Temple University; M.A., St. Joseph's University, Manager Talent Acquisition and Retention
Terri Maguire, B.S. Widener University,
Coordinator, Human Resources Manager.
Zenobia Hargust, B.A., West Chester University;
PHR, M.S. Walden University; Human Resources Manager.
John Cline, B.S., Gannon University,
Compensation and Benefits Specialist.
Janis Leone, Human Resources Coordinator. Payroll
Karen Phillips, Payroll Director.
Susan Watts, Payroll Coordinator.
Catherine Wilson, Payroll/Human Resources Assistant.

### 14.18 Information Technology Services

Joel P. Cooper, B.A., Calvin College; M.A., University of Texas-Austin, Chief Information Technology Officer.
Kelly A. Fitzpatrick, IT Coordinator.
Academic Technologies
Michael Bednarz, B.A., Pennsylvania State University, Media Services Technician.
Eric Behrens, B.A., Swarthmore College, Associate Chief Information Technology Officer, Academic Technologies.
Michael Kappeler, B.A., Richard Stockton College of New Jersey, Web Content Coordinator. Leslie Leach, B.S., University of Maine, Web Developer.
David T. Neal Jr., B.A., Temple University, Media Services Technician.
Michael Patterson, B.A., Temple University, Media Services Manager.
Jeremy Polk, B.A., University of Delaware; M.A., American University, Media Center Coordinator.
Joel F. W. Price, B.A., Swarthmore College, Technology Education Coordinator.
Andrew Ruether, B.A., Swarthmore College;
M.Eng., Cornell University, Academic Technologist.
Karen "Corrine" Schoeb, B.A., Goddard
College, Web Content Management Developer.
Ashley Turner, B.A., University of MissouriKansas City, Media Services Specialist.
Doug Willen, B.A., Princeton University; Ph.D.,
University of California, Academic Technologist.
Administrative Applications Support
Robin Jacobsen, B.B.S., Temple University, Systems Analyst.
Frank Milewski, B.S., St. John’s University, Director, Administrative Information Systems.

Jean Pagnotta, B.S.I.E., University of Pittsburgh, System Analyst.
Rhoni A. Ryan, B.S., Villanova University, System Support Analyst.
Edward Siegle, B.A., West Chester University, Senior Systems Analyst.
Client Services
Mark CJ Davis Jr., A.S., CLC, B.S., Delaware Valley College, Technical Support Specialist. Heather Dumigan, Technical Support Specialist. Seth Frisbie-Fulton, B.A., Antioch College, Technical Support Specialist.
Oliver Ryan Hollocher-Small, A.A., Community College of Philadelphia, Technical Support Specialist.
Aixa I. Pomales, B.A., Temple University, Director, Client Services.
Michael Rapp, Hardware Support Technician. Christina Webster, B.A., Temple University, Technical Support Specialist.
Enterprise Services
Nathan Austin, B.A., Widener University, Systems Administrator.
Wenping Bo, B.A., Tianjin Foreign Languages Institute; M.S., Lawrence Technological
University; M.S., Clemson University, System Analyst.
Michael Clemente, B.S., Rowan University, Systems Administrator.
Nicholas Hannon, B.S., Worcester Polytechnic Institute; M.S., Syracuse University, Information Security Analyst.
Jason Rotunno, B.S., Drexel University, Junior Systems Administrator.
R. Glenn Stauffer, B.B.A., Temple University, Director, Enterprise Systems.
Donald Tedesco, B.A., Rutgers University, Data Center Supervisor.
Networking and Telecommunications
Mark J. Dumic, B.A., M.B.A., University of Rochester, Director, Networking and Telecommunications.
Albert Moore, B.S., Temple University, Network Engineer.
C. Aaron Smith, B.A., The Ohio State University; M.S., The Pennsylvania State University, Network Engineer.

### 14.19 Institutional Research Office

Robin H. Shores, B.A., M.A., Ph.D., University of Delaware, Director of Institutional Research and Assessment.
Pamela Borkowski-Valentin, B.A., University of Delaware; M.S.S., M.L.S.P., Bryn Mawr Graduate School of Social Work and Social Research, Data and Reporting Officer.

Jason Martin, B.A., Trinity Christian College; M.A., Ph.D., Temple University, Institutional Research Associate.

### 14.20 Institutional Risk Management, Legal Affairs, and Equal Opportunity Office

Sharmaine B. LaMar, B.S., St. Joseph's
University; J.D., University of Richmond, Assistant Vice President for Risk Management and Legal Affairs, Director of Equal Opportunity.
Christopher J. Kelly, B.S., Drexel University, Administrative Assistant.

### 14.21 Investment Office

Mark C. Amstutz, B.A., College of William and Mary; M.A., University of Virginia, C.F.A., Chief Investment Officer.
Lori Ann Johnson, B.A., Rutgers University; M.B.A., Villanova University, Director of Investment Operations and Assistant Treasurer.
Carmen Duffy, Investment Associate.

### 14.22 Lang Center for Civic and Social Responsibility

Joy Charlton, B.A., University of Virginia; M.A., Ph.D., Northwestern University, Executive Director.
Giovanna Di Chiro, B.S., University of
Michigan; Ph.D., University of California, The Eugene M. Lang '38 Visiting Professor for Issues of Social Change, 2012-2015.
Cynthia Jetter, B.A., Swarthmore College,
Director for Community Partnerships and Planning.
Nina Johnson, B.A., University of Pennsylvania; M.A., New York University; M.A., Northwestern University; Ph.D., Northwestern University, Faculty Coordinator for Community-Based Learning.
Debra Kardon-Brown, B.S., Pennsylvania State
University, Assistant Director for Student Programs.
Jennifer Magee, B.A., M.A., Washington College; Post Graduate Diploma, University of Ulster (Magee College); Ph.D., George Mason University, Associate Director for Student Programs.
Delores Robinson, Administrative Assistant.

### 14.23 Lang Performing Arts Center

James P. Murphy, B.F.A., State University of New York, Albany, Managing Director.
J. Scott Burgess, Sound Designer, Audio/Video Assistant, Stage Manager.
Allison Emmerich, B.A., DeSales University, Production Assistant.

Joshua Schulman, B.A., Washington College; M.F.A., Boston University, Lighting Designer, Lighting Assistant.
Thomas Snyder, B.S., Pennsylvania State University, Manager of Operations.
Jean R. Tierno, B.A., J.D., Widener University, Administrative Assistant.

### 14.24 Libraries

14.24.1 College Library

Peggy Ann Seiden, B.A., Colby College; M.A., University of Toronto; M.L.I.S., Rutgers
University, College Librarian.
Annette Newman, B.A., Evergreen State College, Assistant to the College Librarian.
Digital Initiatives
Kate Carter, B.F.A., New York University;
M.L.S., University of Pittsburgh, Digital Initiatives Librarian.
Nabil Kashyap, B.A. Prescott College; M.F.A., University of Montana; M.I.S., University of Michigan, Librarian for Digital Initiatives and Scholarship.
Reference and Bibliographic Instruction
Anne Garrison, B.A., Drew University; M.A., University of Washington; M.L.S., University of Washington, Humanities Librarian.
Pam Harris, B.A., Mary Washington College; M.L.S., Drexel University, Outreach, Instruction, and Reference Services Librarian.
Sarah Elichko, A.B., Bryn Mawr College; M.L.I.S., Rutgers University, Social Sciences Librarian.
Vargas, Roberto, B.A., Knox College; M.L.I.S,
Drexel University, Reference and Digital
Initiatives Resident
Technical Services
Barbara J. Weir, B.S., Pennsylvania State
University; M.L.S., Drexel University, Associate
College Librarian for Technical Services \& Digital Initiatives.
Amy McColl, B.A., University of Delaware; M.L.S., Drexel University, Assistant Director for Collections and TriCollege Consortium Licensing Librarian.
Susan Dreher, B.A., Wesleyan University; M.L.I.S., Drexel University, Digital Resources Digitization Coordinator.
Jessica Brangiel, B.A., The George Washington
University; M.L.I.S., Drexel University, Electronic Resources Management Librarian.
Maria Aghazarian, B.A. Bryn Mawr College, Serials and Electronic Resources Specialist.
Anna Goslen, B.S., M.S.L.S., University of North Carolina-Chapel Hill, Digital Initiatives Librarian and Media Coordinator.

So-Young Jones, B.A., Euha Women's University, Korea; M.L.S., Simmons College, Technical Services Specialist.
Melinda Kleppinger, B.S., Lebanon Valley College, Government Documents Specialist.
Mary Marissen, B.A., Calvin College; M.M., Catholic University of America; M.L.I.S., Drexel University, Collection Specialist.
Danie Martin, B.A., B.S., Ohio State University; M.L.S., Kent State University, Technical Services Specialist.
Kerry McElrone, B.A., Saint Joseph's
University, Interlibrary Loan Specialist.
Sandra M. Vermeychuk, B.A., Swarthmore
College; M.S. in Ed., University of Pennsylvania, Interlibrary Loan Specialist.
Access and Lending Services
Alison J. Masterpasqua, B.S., Millersville State College, Access and Lending Services Supervisor.
Linda Hunt, B.A., West Chester University, Access and Lending Services Specialist.
Mary Ann Wood, B.S., Pennsylvania State University; M.Ed., Temple University, Evening Access and Lending Services Supervisor.
Tricollege Library Consortium
Anna Headley, B.A., Swarthmore College; M.S., Drexel University, Library Applications Intern.
Chelsea Lobdell, B.S., Muhlenberg College;
M.S., University of Pennsylvania, Library

Applications Programmer.
Ken Watts, Book Van Driver.
14.24.2 Cornell Science and Engineering Library
Meg E. Spencer, B.A., University of Richmond; M.S., Drexel University, Head of Cornell Library of Science and Engineering and Science Librarian.
Teresa E. Heinrichs, B.A., Waynesburg College, Cornell Access and Lending Services Supervisor.
14.24.3 Underhill Music and Dance Library Donna Fournier, B.A., Connecticut College;
M.L.S., Southern Connecticut State University; M.A., West Chester University, Music and Dance Librarian.
14.24.4 Friends Historical Library

Christopher Densmore, B.A., Oberlin College;
M.A., University of Wisconsin, Curator.

Patricia Chapin O'Donnell, B.A., M.A., University of Pennsylvania; M.A., University of Delaware, Archivist.
Barbara E. Addison, B.S., University of Wisconsin-Milwaukee; M.S.L., University of Wisconsin-Madison, Technical Services Coordinator.
Susanna K. Morikawa, B.A., Dickinson College; M.F.A., Ph.D., Syracuse University, Archival Specialist.

Charlotte A. Blandford, Administrative Assistant.
Honorary Curators of the Friends Historical Library
Esther Leeds Cooperman, Mary R. Dunlap (emerita), Philip L. Gilbert, Valerie Gladfelter, James E. Hazard, Robert C. Turner, Nancy V. Webster, Signe Wilkinson, and Harrison M. Wright.

### 14.24.5 Swarthmore College Peace

 CollectionWendy E. Chmielewski, B.A., Goucher College; M.A., Ph.D., State University of New York, Binghamton, George Cooley Curator.
Barbara E. Addison, B.S., University of Wisconsin-Milwaukee; M.S.L., University of Wisconsin-Madison, Librarian.
Mary Beth Sigado, B.M., Temple University; M.S.W., Widener University, Technical Services Specialist.
Anne Yoder, B.A., Eastern Mennonite College; M.L.S., Kent State University, Archivist.

Advisory Council of the Swarthmore College Peace Collection
Harriet Hyman Alonso, Kevin Clements, Hilary Conroy (emeritus), John Dear, Donald B. Lippincott.

### 14.25 List Gallery

Andrea Packard, B.A., Swarthmore College; Certificate, Pennsylvania Academy of the Fine Arts; M.F.A., American University, Director.

### 14.26 Off-Campus Study Office

Sharon E. Friedler, B.A., Colby College; M.F.A., Southern Methodist University, Faculty Adviser for Off-Campus Study.
Patricia C. Martin, B.A., Williams College; M.A., School for International Training, Director for Off-Campus Study.
Rosa M. Bernard, B.S., Pace University, Assistant Director for Off-Campus Study.
Diana R. Malick, B.S., Neumann University, Administrative Assistant for Off-Campus Study.

### 14.27 President's Office

Constance Cain Hungerford, B.A., Wellesley College; M.A., Ph.D., University of California, Berkeley, Interim President of the College and Mari S. Michener Professor of Art History.
Maurice G. Eldridge, B.A., Swarthmore College; M.Ed., University of Massachusetts, Vice President for College and Community Relations and Executive Assistant to the President. Ed Rowe, B.A., The Pennsylvania State University, Special Assistant to the President.
Jenny Gifford, Administrative Coordinator.

### 14.28 Provost's Office

Thomas A. Stephenson, B.S., Furman University; Ph.D., University of Chicago, Provost and James H. Hammons Professor of Chemistry and Biochemistry.
Patricia L. Reilly, B.A., University of California; M.A., Bryn Mawr College; Ph.D., University of California, Associate Provost for Faculty Development and Outreach and Associate Professor of Art History.
Richard Wicentowski, B.S., Rutgers College, Rutgers University; M.S., University of Pittsburgh; Ph.D., Johns Hopkins University, Associate Provost for Educational Programs and Curriculum Support and Associate Professor of Computer Science.
Marcia C. Brown, B.A., Villanova University; M.Ed., University of Pennsylvania, Executive Assistant to the Provost.
Robin H. Shores, B.A., M.A., Ph.D., University of Delaware, Director of Institutional Research.
Amy Hagelstein, B.S., University of Delaware; M.S., University of Medicine and Dentistry of New Jersey, Institutional Review Board and Research Compliance Manager.
Cathy Pescatore, Administrative Coordinator.
Joanne Kimpel, Administrative Coordinator.
Debbie Thompson, Administrative Assistant.

### 14.29 Public Safety

Michael J. Hill, B.A., University of Pennsylvania, Director of Public Safety.
Joanna Gallagher, B.S., M.S., Villanova, Associate Director of Public Safety.
Thomas Gleeson, Brian Harris, Shelton Sneed, Patrol Sergeants.
Joe Forgacic, Robert Warren, Patrol Corporals.
Kathy Agostinelli, A.A.S., Delaware County
Community College; Andrew Dunn, Jim Ellis,
Tony Green, Scott Soule, Bob Stephano, Joseph Theveny, Public Safety Officers.
George Darbes, A.A.S., Delaware Technical and Community College, Operations Supervisor.
Terry McGonigle, Brandi Jones, Maggie
McCans, B.A., University of Scranton, Communications Center.
Terri Narkin, Mary Lou Lawless, Administrative Assistants.

### 14.30 Registrar's Office

Martin O. Warner, B.A., University of North Carolina at Chapel Hill; M.A., Duke University, Registrar.
Lesa Shieber, B.S., Tuskegee University; M.A., Virginia Polytechnic State and Institute University, Associate Registrar.

Stacey Hogge, A.S., Delaware County
Community College; B.S., West Chester University, Assistant Registrar.
Keira Stevenson, Assistant Registrar.

### 14.31 The Scott Arboretum

Claire Sawyers, B.S., M.S., Purdue University; M.S., University of Delaware, Director.

Julie Jenney, B.A., University of Oregon, Educational Programs Coordinator.
Andrew Bunting, A.A.S., Joliet Junior College; B.S., Southern Illinois University, Curator. Jody Downer, A.A.S., Drexel University, Administrative Assistant.
Jeff Jabco, B.S., Pennsylvania State University; M.S., North Carolina State University, Horticultural Coordinator.
Rebecca Robert, B.S., M.S., Pennsylvania State University, Member and Visitor Programs Coordinator.
Jacqui West, Administrative Coordinator.

### 14.32 Title IX

Patricia Flaherty Fischette, B.A., Haverford College; M.S.S., MLSP, Bryn Mawr College Graduate School of Social Work and Social Research, Interim Title IX Coordinator.
Nnenna Akotaobi, B.S./B.A., University of Denver, Associate Director of Athletics and Deputy Title IX Coordinator.
Zenobia Hargust, B.A., West Chester University, Human Resources Manager and Deputy Title IX Coordinator.
Patricia L. Reilly, B.A., University of California;
M.A., Bryn Mawr College; Ph.D., University of California, Associate Provost for Faculty Development and Outreach, Associate Professor of Art History and Deputy Title IX Coordinator. Liliana Rodriguez, B.A., Williams College; M.S., Ph.D., University of Massachusetts-Amherst, Associate Dean of Diversity, Inclusion, and Community Development and Deputy Title IX Coordinator.

### 14.33 Academic Administrative Assistants and Technicians

Art: June V. Cianfrana, A.A.S., Delaware County Community College, Administrative Assistant; Stacy Bomento, B.A., LaSalle University, Slide Curator; Douglas Herren, B.F.A., Wichita State University; M.F.A., Louisiana State University, Studio Technician.
Asian Studies: Anna Everetts, Administrative Assistant.
Biology: Matt Powell, B.S., Central Michigan University, Administrative and Technology Manager; Diane Fritz, Administrative Coordinator; John Kelly, A.A.S., Community College of

Philadelphia; B.S., Wharton School, University of Pennsylvania, Senior Technical Specialist; Gwen Kannapel, B.S., Denison University; M.E., Widener University, Laboratory Coordinator; Tami Gura, B.A., Western Maryland College, Animal Facilities Manager.
Black Studies: Rose Maio, Administrative Coordinator.
Chemistry and Biochemistry: Catherine
Cinquina, Administrative Assistant; Ian P. McGarvey, B.S., Temple University, Scientific Instrumentation Specialist.
Classics: Deborah Sloman, Administrative Assistant.
Cognitive Science: Anna Everetts, Administrative Assistant.
Computer Science: Bridget M. Rothera,
Administrative Assistant; Jeffrey M. Knerr, B.S., College of William and Mary; M.S., Ph.D.,
University of North Carolina, Lab/System Administrator.
Economics: Nancy Carroll, B.A., Barat College, Administrative Assistant.
Educational Studies: Kae Kalwaic, B.S., Shippensburg University; M.Ed., Temple University, Administrative Assistant.
Engineering: Cassy Burnett, Administrative Coordinator; Edmond Jaoudi, B.S., Fairleigh Dickinson University; M.Arch., Virginia
Polytechnic Institute and State University, Electronics, Instrumentation, and Computer Specialist; Ann Ruether, B.S., Swarthmore College, Academic Support Coordinator; Grant Smith, Mechanician.
Environmental Studies: Cassy Burnett, Administrative Coordinator.
Film and Media Studies: Susan Grossi, Administrative Assistant.
Gender and Sexuality Studies: Anna Everetts, Administrative Assistant.
German Studies: Eleonore Baginski, B.S., St. Joseph's University, Administrative Coordinator.
History: Jennifer Moore, B.A., University of Pennsylvania; M.S.Ed., University of Pennsylvania, Administrative Assistant.
Interpretation Theory: Anna Everetts, Administrative Assistant.
Islamic Studies: Anita Pace, Administrative Assistant.
Latin American Studies: Anna Everetts, Administrative Assistant.
Linguistics: Jeremy Fahringer, B.A., Swarthmore College, Phonetics Lab Coordinator; Dorothy Kunzig, Administrative Assistant.
Mathematics and Statistics: Stephanie J. Specht, Administrative Assistant; Kaitlyn E. O’Neil, B.A., Merrimack College; M.A., University at Buffalo,

## 14 Administration

The State University of New York, Academic Support Coordinator.
Modern Languages and Literatures: Eleonore
Baginski, B.S., St. Joseph’s University,
Administrative Coordinator; Bethanne Seufert,
B.A., Penn State University, Administrative

Assistant; Michael Jones, B.A., State University of
New York, Buffalo, Language Resource Center
Director; Alexander Savoth, B.F.A., Syracuse
University, Language Resource Center
Technologist.
Music and Dance: Hans Boman, B.M.,
Philadelphia College of Performing Arts, Dance
Program Accompanist; Bernadette Dunning,
Administrative Coordinator; Susan Grossi,
Administrative Assistant; Tara Nova Webb, B.A.,
Swarthmore College; M.A., New York University, Arts Publicity and Costume Shop Supervisor.
Peace and Conflict Studies: Anna Everetts,
Administrative Assistant.
Philosophy: Donna Mucha, Administrative
Assistant.
Physical Education and Athletics: Nnenna
Akotaobi, B.S./B.A., University of Denver,
Associate Director of Athletics; Marian Fahy,
A.S., Delaware County Community College, Sharon J. Green, Administrative Assistants; Ray Scott, B.A., Widener University, Larry Yannelli, B.A., Widener University, Equipment/Facilities Managers; Marie Mancini, A.T.C., B.S., C.C.C.S., West Chester University; Jessica Lydon, M.S., A.T.C., West Chester University; Allison Hudak, A.T.C., West Chester University.

Physics and Astronomy: Carolyn Warfel, A.S., Widener University, Administrative Assistant;
Paul Jacobs, B.S., Georgia Institute of
Technology; M.S., Ph.D., University of Michigan, Instrumentation Technician; Steven Palmer,
Machine Shop Supervisor; David Schaffner, B.A., Ph.D., University of California, Los Angeles, Postdoctoral Research Scientist.
Political Science: Gina Ingiosi, Deborah Sloman, Administrative Assistants.
Psychology: Kathryn Timmons, Administrative
Coordinator; Abigail Robinson, B.S. Ursinus
College, Research Coordinator \& Academic Assistant.
Public Policy: Catherine Wareham, A.S., Wesley College, Administrative Assistant.
Religion: Anita Pace, Administrative Assistant.
Sociology and Anthropology: Rose Maio,
Administrative Coordinator.
Theater: Jean Tierno, B.A., J.D., Widener
University, Administrative Assistant; Tara Nova
Webb, B.A., Swarthmore College; M.A., New
York University Arts Publicity and Costume Shop Supervisor.

## 15 Visiting Examiners

## Art History

Mary Shepard, University of Arkansas - Fort Smith

Biology
Ted Abel, University of Pennsylvania Richard Behringer, MD Anderson Cancer Center
Sarah Berke, Siena College
Diana Downs, University of Georgia
Robert Jinks, Franklin and Marshall College
Scott McRobert, St. Joseph's University
Scott Poethig, University of Pennsylvania
Erik Puffenberger, Clinic for Special Children
Michelle Rensel, University of California, Los Angeles
Jacob Russell, Drexel University
Ryan Taylor, Salisbury University
Joseph Thompson, Franklin and Marshall College Julie Williams, University of Pennsylvania

## Black Studies

Eileen Julien, Indiana University
Jayanti Owens, University of Wisconsin - Madison

## Chemistry and Biochemistry

Nalin Goonesekere, University of Northern Iowa
Brad Johnson, University of Pennsylvania
Casey Londergan, Haverford College
William Malachowski, Bryn Mawr College
Amanda Reig, Ursinus College

## Classics—Ancient History

Radcliffe Edmonds, Bryn Mawr College
Classics-Greek
Radcliffe Edmonds, Bryn Mawr College
Classics—Latin
James Ker, University of Pennsylvania
Nandini Pandey, Loyola University

## Cognitive Science

Dedre Gentner, Northwestern University

## Computer Science

David Bunde, Knox College
Susan Fox, Macalester College
Karen Karvanic, Portland State University
Sanjeev Khanna, University of Pennsylvania
Geideon Mann, Bloomberg, CTO Office

## Economics

Matthew Freedman, Cornell University
Matthew Gustafson, Pennsylvania State University
Joshua Hausman, University of Michigan
Stephen Marks, Pomona College
Prakarsh Singh, Amherst College
William Tracy, Lally School of Management, Rensselaer Polytechnic Institute
Douglas Webber, Temple University

## Educational Studies

Nelson Flores, University of Pennsylvania
Rand Quinn, University of Pennsylvania
Wesley Shumar, Drexel University

## Engineering

Bruce Maxwell, Colby College
Kundan Nepal, University of St. Thomas - School of Engineering
Sridhar Santhanam, Villanova University

## English Literature

William Cohen, University of Maryland
Andrew Duncan, Frostburg State University
Michael Gamer, University of Pennsylvania
David Jenemann, University of Vermont
Matthew Kozusko, Ursinus College
Vicki Mahaffey, University of Illinois, Urbana -
Champaign
Amritjit Singh, Ohio University
Andrea Walkden, Queens College, the City
University of New York
Environmental Studies
Julie Sze, University of California, Davis
History
Misty Bastian, Franklin and Marshall College Carolyn Dean, Yale University
Konstantin Dierks, Indiana University
Adam Franklin-Lyons, Marlboro College
Brendan Karch, Harvard University
Lisa Kirschenbaum, West Chester University
Seth Koven, Rutgers University
John Lear, University of Puget Sound
Adrienne Petty, City College of New York
Interpretation Theory
Tara McPherson, University of Southern
California, School of Cinematic Arts
Jon Pahl, The Lutheran Theological Seminary at Philadelphia

## Latin American Studies

Oswaldo Estrada, University of North Carolina at Chapel Hill
John Lear, University of Puget Sound

## Linguistics

George Broadwell, University of Albany, SUNY
Gregory Carlson, University of Rochester
Paul Garrett, Temple University
Lisa Green, University of Massachusetts
Xiaorong Li, University of California, Santa Barbara
Mizuki Miyashita, University of Montana
Eric Raimy, University of Wisconsin - Madison
Carl Rubino
Betsy Rymes, University of Pennsylvania
Charles Yang, University of Pennsylvania
Mathematics and Statistics
John Emerson, Yale University
Curtis Greene, Haverford College
Haynes Miller, Massachusetts Institute of
Technology
Jim Wiseman, Agnes Scott College

## 15 Visiting Examiners

Modern Languages and Literatures-
Chinese
Stephen Bokenkamp, Arizona State University
Modern Languages and Literatures-
French
Roxanna Curto, University of Iowa
Brian Martin, Williams College
Jeffrey Peters, University of Kentucky
Joelle Vitiello, Macalester College
Modern Languages and Literatures-

## German

Marc Weiner, Indiana University
Modern Languages and LiteraturesJapanese
Jonathan Abel, Pennsylvania State University
Music and Dance
Vincent Benitez, Pennsylvania State University
Lynn Matluck Brooks, Franklin \& Marshall
College
Peter Kupfer, James Madison University
James Primosch, University of Pennsylvania
Dmitri Tymoczko, Princeton University

## Philosophy

Kate Abramson, Indiana University
Joseph Cruz, Williams College
Steven Gerrard, Williams College
Miriam Solomon, Temple University
David Sussman, University of Illinois, UrbanaChampaign
Thomas Wartenberg, Mount Holyoke College
David Wolfsdorf, Temple University
Physics and Astronomy
Douglas Durian, University of Pennsylvania
Kannan Jagannathan, Amherst College
Paul Janmey, University of Pennsylvania
Jacqueline Milingo, Gettysburg College William Wootters, Williams College

## Political Science

Phillip Brendese, Johns Hopkins University
Maria Esperanza Casullo, Brown University
Christopher Howard, The College of William and
Mary
Michelle Mood, Kenyon College
Jason Neidleman, University of LaVerne
Amy Oakes, The College of William and Mary
Jayanti Owens, University of Wisconsin - Madison
Mark Pollack, Temple University
Arthur Schmidt, Temple University
Emily Zackin, Johns Hopkins University

## Psychology

Dedre Gentner, Northwestern University
Benjamin Le, Haverford College
Anna Papafragou, University of Delaware
Marc Schultz, Bryn Mawr College

Kenneth Short, U.S. Army Engineering Graduate
School and Target Behavioral Response
Laboratory
Paul Thibodeau, Oberlin College
Public Policy
Adrienne Lucas, University of Delaware

## Religion

Abigail Kluchin, Ursinus College
Jon Pahl, The Lutheran Theological Seminary at Philadelphia

Sociology and Anthropology
Hiba Bou Akar, Hampshire College
Phaedra Diapha, Rutgers University
Jeffrey Himpele, Princeton University
Laura Hirshfield, University of Illinois at Chicago
Rebecca Howes-Mischel, James Madison
University
Caroline Melly, Smith College
Theater
Walter Bilderback, The Wilma Theater
Emmanuelle Delpech, Pig Iron School; Headlong
Performance Institute
Jill Harrison-Snyder, Temple University; Arcadia University
Colin McIlvaine, University of the Arts, Brind School of Theatre
Catherine Sheehy, Yale University
Gavin Witt, Centerstage

June 1, 2014

### 16.1 Bachelor of Arts

Reem Mohamed Abdou, Political Science
Imoleayo Samson Abel, Computer Science
Cristina Abellan-Matamoros, Political Science
Jacob Simon Adenbaum, Mathematics and Economics
Rebecca Ruby Ahmad, Special Major in Psychology and Educational Studies
Paul Isaac Ahn, English Literature and Sociology and Anthropology
Klara Alise Aizupitis, History
Michelle Brittany Ammerman, Biology
Patrick Bennett Ammerman, Biology
Raul Antonio Anchiraico, Biology and Psychology
Davis Rogan Ancona, Computer Science
Carolyn Jane Anderson, Linguistics
Luke David Arnone, Art
Katherine Alexandra Aronoff, History
Christina Laura Aruffo, English Literature
Joshua Alexander Asante, Psychology and Political Science
Daniel Steven Baggarly, Political Science and Psychology
Eliza Xiaojiao Bailey, Computer Science
Peter Lewis Ballen, Mathematics and Computer Science
Lisa Yuming Bao, Linguistics and Computer Science
Morgan Leigh Bartz, Special Major in Environmental and Educational Studies
Niamba Monisa Baskerville, Sociology and Anthropology
Caroline Rose Batten, English Literature
Tyler Jacob Becker, Political Science and History
Benjamin Woody Bernard-Herman, Sociology and Anthropology
Matthew Jacob Bertuch, Economics
Nana Kwame Kobia-Amanfi Bonna, Psychology
Mame Abena Nyarko Fremah Bonsu, English Literature
Nicholas Charles Borkowski, History
Thomas René François Boucher, History
Christopher Andrew Boutelle, Economics
Megan Renee Brock, Economics
Amanda Maria Brown, Special Major in Psychology and Educational Studies
Nicholas Joseph Burnett, Economics
John Basil Buterbaugh, Mathematics
Anjali Bray Cadambi, Film and Media Studies
Emily Allaire Caldwell, Economics and Philosophy
Natalie Ann Campen, Biology
Alexander Rittenhouse Cannon, Computer Science
Gabriella Sophia Capone, Political Science
Evangelos Carabases, Economics and Biology
Christian Frank Carcione, Political Science
Lia D. Carlson, Special Major in Psychology and Educational Studies
Corey Connolly Carmichael, Special Major in Psychology and Educational Studies
Robin Marland Heberle Carpenter, Economics

Elizabeth Mary Casey, Political Science and Chinese
Kimisha Leigh Cassidy, Sociology and Anthropology
Joseph Gray Catalanotto, Philosophy
Paul Marshall Cato, Religion
Danielle Susan Charette, English Literature
Madeline Blaire Charne, Theater and English Literature
Julia Anna Chartove, Special Major in Neuroscience
Kenneson Andrew Zhe-Huong Chen, Latin
Jordan Lewis Cheney, Computer Science
Stella Yuna Cho, Computer Science
Yang Ha Cho, Economics
Paul Hyun Chung, Economics and Special Major in Interdisciplinary Chinese Studies
Nicholas Michael Ciborowski, Economics
Elizabeth Cifuentes, Special Major in Neuroscience
Samuel Ellsworth Cleaves, Political Science and Religion
Anthony Collard, Political Science
Frank Nicholas Constantino, Economics
Brendan James Conway, Mathematics
Marlon Henry Cooper II, Linguistics
Jonathan Michael Cronin, Computer Science
Ammar Quresh Dahodwala, Spanish
Maxwell Edward DeChiara, Psychology
Cally Monie Deppen, Biology
Katherine Helen Porter Derosier, Mathematics and Special Major in Cognitive Science
Han Ding, Political Science
Michael Charles Droste, Economics
Sarah Elizabeth Duda, History
William Patrick Duncan, English Literature
Margaret Elizabeth Duszyk, Special Major in Environmental Protection and Technology and Biology
Sierra Clare Eckert, English Literature
Olivia Winslow Edwards, Biology
Keane Ehsani, Economics and Political Science
Matthew Ryan Elkins, Chemistry
Benjamin Ellentuck, Philosophy
Epiphany Bianca English, English Literature
Gail Lomotele Engmann, Political Science
Sarah Elizabeth Eppley, Biology
Isaac Sebastian Epstein, Art History and Classical Studies
Gavin Linnell Fahey, Economics and Mathematics
Robert Samuel Fain, History and Music
Amber Lee Famiglietti, Biology
Antonio Jose Cunha Farias, Economics and Computer Science
Jordan Arthur Federer, Economics
Casey Seana Ferrara, Linguistics and Psychology
Michelle Nelson Ferreira, Chemistry
Dane Gregory Fichter, Mathematics and Computer Science
Marian Lois Firke, Biology

## 16 Degrees Conferred

Michael Walter Fisher, Physics and Mathematics
Laura Paige Fitzgerald, Linguistics and Psychology
Sara Rose Fitzpatrick, Political Science
John Thomas Flaherty, Biology
Christopher George Fortunato, History
Leah Sylvia Foster, Computer Science
Aaron Leon Freedman, History
Cameron Reid French, Psychology
Rachel Claire Fresques, Psychology
Madison Rose Garcia, Linguistics and Computer Science
Valentina Elizabeth Garcia, Biology
Zachary Alexander Gavin, Special Major in Mathematics and Educational Studies
Rachel K. Giovanniello, Special Major in Sociology and Anthropology and Educational Studies
Joshua Donnelly Gluck, Computer Science and Political Science
Ashley Elizabeth Gochoco, Psychology
Ted Goh, Biology
Katie Elysse Goldman, Theater
Samantha Danielle Goldstein, Art and Computer Science
Pauline Nicole Goodson, Psychology
Sudarshan Gopaladesikan, Mathematics
Christopher Marcellus Gray, Political Science and Chinese
Christopher Lee Green, Psychology and Special Major in Gender and Sexuality Studies
Roy Timothy Greim, History
Hannah Ariel Grunwald, Biology
Adrien Charles Guerard, Economics and Computer Science
Patrick Van Hackeling, Film and Media Studies and History
Michael Alexander Hall, Philosophy
Joshua Thomas Hallquist, Biology and Special Major in Gender and Sexuality Studies
Andrew Hogyu Han, Biology and Psychology
Syed Muhammad Faraz Hayat, Economics and Mathematics
Steven Hoover Hazel, History and Economics
Erik Hans Heaney, Economics and English Literature
Haydil Henriquez, Special Major in Psychology and Educational Studies
Chelsea Annette Hicks, Economics
Dylan Caleb Hillerbrand, Mathematics
Daniel Raoul Hirschel-Burns, Special Major in Political Conflict
Eric Wing-Jun Ho, Psychology and Biology
Jennifer Ting Hu, English Literature
Meghan Huang, Psychology
Wen Huang, Economics and Political Science
Kelsey Ann Huntzberry, Psychology and Political Science
Akure Elizabeth Imes, Sociology and Anthropology
James Alexander Ivey, History
Andrea Renate Jacome, History
Leah Nahum Jean-Louis, Mathematics

Seo Jin Jeong, Sociology and Anthropology Benjamin Clay Johnson, Religion
Grant Samuel Johnson, Art History
Caleb Andrew Jones, Political Science and Economics
Daniel James Kalamarides, Special Major in Neuroscience
Andrew Thomas Kandel, Medieval Studies and Special Major in Japanese
Yashasvat Kashyap, Economics and Political Science
Jacqueline Ok-chan Kay, Computer Science
Maximillian Ariel Kaye, Special Major in
Behavioral Economics and Chinese
Sinan Alp Kazaklar, Economics
Joseph Robert Keedy, Economics
Christina Kathleen Keller, Special Major in Sociology and Anthropology and Educational Studies
Catherine Kelley, Special Major in Sociology and Anthropology and Educational Studies
Gabriel Khaselev, Computer Science
Henry Walker Kietzman, Special Major in Neuroscience
Bradford Jean-Hyuk Kim, Philosophy
Sang Woo Kim, Chemistry
Tae Hyungmin Kim, Physics and Chemistry
Yeon-Joo Kim, Special Major in Literary Translation
Elena Ruth Kingston, Special Major in Biochemistry
Brennan James Klein, Psychology and Special Major in Cognitive Science
Kyle Raymond Knapp, Computer Science
Louis Jay Kober III, History
Hannah Reyzl Roberts Kosman, French
Daniela Krystyna Kucz, Special Major in Gender and Sexuality Studies and Biology
Howard Lam, Psychology
Jesslyn Margaret Lammerts, Economics
Heather Margaret Lane, History and Religion
Emily Ng Hil-Yan Lau, English Literature and Chemistry
Thomas John Laux, Psychology
Margaret Randolph Lawlace, Psychology
Randall Van Le, Sociology and Anthropology
Stan Le, Economics and Asian Studies
Stephanie Maria Lechich, Psychology
Hyee Ryun Lee, Biology and Mathematics
Christopher Robert Lekas, Computer Science and Economics
Grace Nicole Leonard, Linguistics
Mark Philip Levine-Weinberg, Biology and Theater
Reece Yan Liang, Economics
Sophie Shangren Libkind, Mathematics and Computer Science
Abigail Rose Lipnick, History
Yana List, Special Major in Biology and Educational Studies
Brone Subalusky Lobichusky, Biology
Zachary Ross Lockett-Streiff, Computer Science
Jennifer Lopez, Asian Studies

Erin Barnes Lowe, Special Major in
Environmental Studies and Biology
Sarina Chang Lowe, Biology
Christopher William Lynn, Physics and Mathematics
Kathryn Ann Lytle, Mathematics and Economics
Cynthia Zhou Ma, Biology and Computer Science
Jillian Lee Ma, Special Major in Neuroscience
Christopher Sebastian Magnano, Computer Science and Biology
Shivani Mantha, Biology
Julian Arthur Marin, Art History
William Loudon Markowitz, Mathematics
Diane Kimberley Marpozan, Special Major in Chemistry and Educational Studies
Pendle Faith Marshall-Hallmark, Sociology and Anthropology
Michele Celine Martinez Gugerli, Political Science
Dashiell Jacob Massey, Biology
Kana Matsumoto, Special Major in History and Educational Studies
Peter David Maxted, Economics
Maura Kohn McGuire, Psychology
Patrick Hardy McNeill, History
Susana Mai Medeiros, Political Science
Yamilet Stephanie Medina, Spanish and Political Science
Benjamin Roy Mercado, Chemistry
Paola Monseratt Mero, Sociology and Anthropology
Marissa Janay Miller, Sociology and Anthropology
David Mok-Lamme, Economics and Mathematics
Jonathan Charles Arthur Molloy, Special Major in Architectural Studies in Art
Jack Markoff Momeyer, Economics and Chinese
Frank Vito Mondelli, Linguistics and Special Major in Japanese
Anika Johanna Morgan-Dunbar, Psychology
Rachell Marie Morillo, Sociology and Anthropology
Kayla Yasemin Moritzky, Biology
Caroline Reich Murphy, Economics and Mathematics
Zachary Thomas Murphy, Psychology
Maureen Annaliese Murray, Linguistics
Brian Benjamin Nadel, Computer Science and Biology
David O. Nahmias, Mathematics
Thera Naiman, History
Cyrus Soltani Nasseri, Philosophy
Taylor Peter Nation, Computer Science
Isabel Albright Newlin, English Literature
Desheane Gregory Newman, Psychology
Kenneth Kenan Ning, Mathematics and Computer Science
Sang Hyun Noh, Economics
Melissa Mattingly O’Connor, Computer Science
Il Kyu Oh, Economics and Chemistry
Isaac Nana Opoku, Economics
Aliya Murad Padamsee, Biology
Karanbir Singh Padda, Biology
Arya Prashanth Palakurthi, History

Maximilian Julius Pany, Special Major in Neuroscience and Special Major in Health Care Management, Economics and Policy
Daniel Kimyung Park, Computer Science
Sola Park, Computer Science and Art
Yeayeun Park, Economics and Computer Science
Alyson Nicole Passanante, Special Major in Peace and Conflict Studies and Psychology
Kanishka Gopika Patel, Special Major in Neuroscience
Lisa Joy Patusky, Art
Craig Stephen Pentrack, Computer Science
Paloma Isabel Perez, Special Major in Political Science and Educational Studies
McCleary Ann Philbin, Mathematics and English Literature
Kyle Allen Pierce, Economics
Rose McLean Pitkin, Special Major in Neuroscience
Mallory Elizabeth Pitser, Computer Science
Allegra Jean Pocinki, Political Science and History
Preston Poon, Economics and Chinese
Naia Elizabeth Poyer, Art
Eleanor Elizabeth Pratt, Sociology and Anthropology
Yena Sharma Purmasir, Psychology
Yuan-Yuan Zhang Qu, Asian Studies
Luis Emmanuel Ramirez, Computer Science
Shirley Magdalena Ramirez, Biology
Aarti Pappu Rao, Sociology and Anthropology and Biology
Jeremy Anton Rapaport-Stein, Music and Political Science
Galen Christopher Rask, Biology
Shreyas Ravi, Mathematics
Aarthi Lakshmi Reddy, Biology
Margaret Hayley Regan, Physics and Mathematics
Kevin Davis Roberts, Psychology and Computer Science
Maria Jacqueline Marques de Lima Rogers, Russian
Marta Cortez Roncada, Theater
Alison Renee Roseberry-Polier, History and Special Major in Gender and Sexuality Studies
Seth Herbert Rubinstein, Economics
Nathaniel Alexander Ruby, Economics
Stuart Ehrlich Russell, Political Science and Economics
Elena Elisabeth Ruyter, Art
Alison Corinne Ryland, Linguistics
Emma Vickers Saarel, Political Science
Navin Chandragiri Sabharwal, Chemistry and French
Jasmeet Kaur Samra, Biology
Zachary Daniel Schaffer, Economics
Richard George Scott, Mathematics and English Literature
Caitlin Wan Sequira, Psychology and Asian Studies
Mark Anthony Agee Serrano, Computer Science and Special Major in Cognitive Science
Aidan Alex Shackleton, Computer Science

Riana Shah, Special Major in Sociology and Anthropology and Educational Studies
Daoud Bilal Sharif, Economics and Political Science
Justin Davis Shickman, Political Science
Samuel Swift Shuker-Haines, Theater
Lauren Paige Sibeck, Chemistry
Xian Eric Siew Hew Sam, Economics
Adam David Silver, Economics
Chanelle Shakira Simmons, Chemistry
Kaitlyn Christina Sipiora, Biology
Emma Rose Sipperly, Economics
Clarissa Jane Broughton Skinner, Sociology and Anthropology
Mitchell Benjamin Slapik, Philosophy
Collin Brendlinger Smith, Political Science
Holly Rebecca Smith, History
Carmen Fraser Smith-Estrada, Political Science
Corinne Patricia Sommi, Biology
Christine Min Song, Political Science and Economics
Aashish Srinivas, Computer Science and Mathematics
Mihika Srivastava, Sociology and Anthropology and Political Science
Aikaterini Stampouloglou, Economics and Political Science
Brent Lee Stanfield, Mathematics and English Literature
Mariana Dora Stavig, Special Major in Gender and Sexuality Studies and Sociology and Anthropology
Jelayna June Stephens, Film and Media Studies and Political Science
Noah Adam Sterngold, Economics
Vincent Francis Stigliani, Special Major in Cognitive Science
Stephanie Careta Styles, English Literature
Danielle Stephanie Sullivan, Computer Science
Ishaan Bhadresh Sutaria, Economics and Political Science
Ariel Eleanor Swyer, Philosophy
Cristian Camilo Taborda, Special Major in Neuroscience and Linguistics
Samuel Erskine Tanner, Chemistry
Harrison Michael Tasoff, Mathematics
Rebecca Teng, Special Major in Neuroscience
Kevin Hideo Terusaki, Computer Science
Megan Elizabeth Thompson, Special Major in Biochemistry and Latin
Maria Nicole Thomson, Sociology and Anthropology
Melissa Oberon Tier, Psychology
Sarah Ann Timreck, Political Science and Religion
McWelling Hanson Todman, Economics
Fredrick Gabriel Toohey, Political Science
Spencer MacDonnell Topf, Economics and Political Science
Justin Kirk Toran-Burrell, Psychology
Hugh Douglas Troeger, Art and Computer Science
Josselyn Tufino, Economics
Erik Sigurd Tvetenstrand, Biology

Akunna Faith Uka, Political Science
Octavia Lothian Mangabeira Unger, Philosophy
Abir Varma, Economics
Niels John Verosky, Music and Computer Science
Janelle Ashley Viera, Sociology and Anthropology
Ximena Violante, Music
Emma Naomi Waitzman, Sociology and Anthropology
Jeffrey Jack Wall, Economics and History
Patrick Robert Walsh, Mathematics
Bowen Wang, Mathematics and Computer Science
Heidy Liyue Wang, Biology
Shen Wang, Biology
Yuwen Wang, Mathematics
Zhengyang Wang, Philosophy and Biology
Elaine Rachelle Wangsawidjaja, Political Science
Jackson Graham Weiner, Computer Science
Elliot Abraham Weiser, Computer Science
Shelly Keren Wen, Special Major in Ethnic Studies and Educational Studies
Arianne Marie Wenk, Psychology
Alexandra Margot Werth, Physics
Lucille Ann Whitacre, Art
Samuel Thomas White, English Literature and Computer Science
Brooke Marissa Wilkins, Special Major in Psychology and Educational Studies
Morgan James Christopher Williams, Political Science and Psychology
Naudia Rose Williams, Political Science
Chloe Elisha Wittenberg, Political Science
Benjamin Brucks Wolcott, Economics and Sociology and Anthropology
Yeab Meheret Wondimu, Computer Science
Jo Wong, Philosophy
Tyler Foster Woollard, Biology
Kathryn M Wu, Biology
Zachary Blaze Wunrow, English Literature
Jack Yujie Yang, Special Major in Psychology
Politics and Economics and Computer Science
Su Wai Yee, Economics and Chinese
Hongin Yun, Economics and Computer Science
Patricia Joy Zarate, Biology
Jimmy Yang Zeng, Biology
Mengxi Zhang, Special Major in Neuroscience
Shimian Zhang, Computer Science and Psychology

### 16.2 Bachelor of Science

Nicole Leilani Aaron, Engineering
Imoleayo Samson Abel, Engineering
Davis Rogan Ancona, Engineering
Luke David Arnone, Engineering
Eliza Xiaojiao Bailey, Engineering
Christopher Andrew Boutelle, Engineering
Jordan Lewis Cheney, Engineering
Remy Marie Donahey, Engineering
Price Greenberg Ferchill, Engineering
Christopher George Fortunato, Engineering
Nia Elisa Jones, Engineering
Joseph Robert Keedy, Engineering

## 16 Degrees Conferred

Gabriel Khaselev, Engineering
Kyle Raymond Knapp, Engineering
Daniel Adam Kowalyshyn, Engineering
Tinashe Harold Mubvuma, Engineering
David O. Nahmias, Engineering
Anne Sydney Rosenblatt, Engineering
Cody Albert Ruben, Engineering
Katie Renae Samuelson, Engineering
Noah Adam Sterngold, Engineering
Danielle Stephanie Sullivan, Engineering
Alexandra Margot Werth, Engineering
Yeab Meheret Wondimu, Engineering

## 17 Distinctions, Awards, and Fellowships

### 17.1 Honors Awarded by the Visiting Examiners

## Highest Honors

Lisa Yuming Bao, Caroline Rose Batten, Sierra Clare Eckert, Hannah Reyzl Roberts Kosman, Sophie Shangren Libkind, Thera Naiman, Samuel Swift Shuker-Haines, Chloe Elisha Wittenberg

## High Honors

Reem Mohamed Abdou, Imoleayo Samson Abel, Carolyn Jane Anderson, Tyler Jacob Becker, Benjamin Woody Bernard-Herman, Joseph Gray Catalanotto, Paul Marshall Cato, Danielle Susan Charette, Madeline Blaire Charne, Maxwell Edward DeChiara, Matthew Ryan Elkins, Robert Samuel Fain, Sara Rose Fitzpatrick, Aaron Leon Freedman, Rachel Claire Fresques, Roy Timothy Greim, Hannah Ariel Grunwald, Steven Hoover Hazel, Caleb Andrew Jones, Sang Woo Kim, Tae Hyungmin Kim, Heather Margaret Lane, Christopher William Lynn, Michele Celine Martinez Gugerli, Peter David Maxted, Susana Mai Medeiros, David Mok-Lamme, Frank Vito Mondelli, Isabel Albright Newlin, Paloma Isabel Perez, Stuart Ehrlich Russell, Navin Chandragiri Sabharwal, Clarissa Jane Broughton Skinner, Mitchell Benjamin Slapik, Collin Brendlinger Smith, Noah Adam Sterngold, Vincent Francis Stigliani, Samuel Erskine Tanner, Maria Nicole Thomson, Niels John Verosky, Yuwen Wang, Samuel Thomas White

## Honors

Jacob Simon Adenbaum, Christina Laura Aruffo, John Basil Buterbaugh, Gabriella Sophia Capone, Kenneson Andrew Zhe-Huong Chen, Michael Charles Droste, Gail Lomotele Engmann, Valentina Elizabeth Garcia, Joshua Donnelly Gluck, Ted Goh, Katie Elysse Goldman, Michael Alexander Hall, Syed Muhammad Faraz Hayat, Dylan Caleb Hillerbrand, James Alexander Ivey, Bradford Jean-Hyuk Kim, Hyee Ryun Lee, Mark Philip Levine-Weinberg, Patrick Hardy McNeill, Caroline Reich Murphy, Jeremy Anton RapaportStein, Margaret Hayley Regan, Marta Cortez Roncada, Nathaniel Alexander Ruby, Emma Vickers Saarel, Christine Min Song, Cristian Camilo Taborda, Fredrick Gabriel Toohey, Emma Naomi Waitzman, Zhengyang Wang, Chien Rou Wong, Kathryn M Wu

### 17.2 Elections to Honorary Societies

## Phi Beta Kappa

Reem Mohamed Abdou, Paul Isaac Ahn, Carolyn
Jane Anderson, Katherine Alexandra Aronoff,
Peter Lewis Ballen, Caroline Rose Batten, Tyler
Jacob Becker, Corey Connolly Carmichael,
Madeline Blaire Charne, Julia Anna Chartove,
Stella Yuna Cho, Katherine Helen Porter Derosier, Sierra Clare Eckert, Marian Lois Firke, Aaron Leon Freedman, Madison Rose Garcia, Joshua

Donnelly Gluck, Daniel Raoul Hirschel-Burns, Christina Kathleen Keller, Henry Walker Kietzman, Bradford Jean-Hyuk Kim, Tae Hyungmin Kim, Elena Ruth Kingston, Kyle Raymond Knapp, Hannah Reyzl Roberts Kosman, Heather Margaret Lane, Margaret Randolph Lawlace, Sophie Shangren Libkind, Diane Kimberley Marpozan, Peter David Maxted, Susana Mai Medeiros, Jonathan Charles Arthur Molloy, Frank Vito Mondelli, Maureen Annaliese Murray, Thera Naiman, Sang Hyun Noh, Il Kyu Oh, Naia Elizabeth Poyer, Jeremy Anton Rapaport-Stein, Seth Herbert Rubinstein, Stuart Ehrlich Russell, Katie Renae Samuelson, Aidan Alex Shackleton, Samuel Swift Shuker-Haines, Collin Brendlinger Smith, Carmen Fraser Smith-Estrada, Aashish Srinivas, Abir Varma, Bowen Wang, Jackson Graham Weiner, Brooke Marissa Wilkins, Chloe Elisha Wittenberg, Benjamin Brucks Wolcott, Kathryn M Wu, Jimmy Yang Zeng

## Sigma Xi

Imoleayo Samson Abel, Eliza Xiaojiao Bailey, Natalie Ann Campen, Julia Anna Chartove, Stella
Yuna Cho, Cally Monie Deppen, Katherine Helen Porter Derosier, Margaret Elizabeth Duszyk, Matthew Ryan Elkins, Amber Lee Famiglietti, Michelle Nelson Ferreira, Marian Lois Firke, Michael Walter Fisher, John Thomas Flaherty, Christopher George Fortunato, Valentina Elizabeth Garcia, Joshua Donnelly Gluck, Ted Goh, Hannah Ariel Grunwald, Andrew Hogyu Han, Meghan Huang, Leah Nahum Jean-Louis, Daniel James Kalamarides, Jacqueline Ok-chan Kay, Henry Walker Kietzman, Sang Woo Kim, Elena Ruth Kingston, Brennan James Klein, Hyee Ryun Lee, Christopher Robert Lekas, Mark Philip LevineWeinberg, Sophie Shangren Libkind, Sarina Chang Lowe, Jillian Lee Ma, Benjamin Roy Mercado, Tinashe Harold Mubvuma, David O.
Nahmias, Aliya Murad Padamsee, Karanbir Singh Padda, Maximilian Julius Pany, Galen Christopher Rask, Margaret Hayley Regan, Navin Chandragiri Sabharwal, Jasmeet Kaur Samra, Katie Renae Samuelson, Richard George Scott, Corinne Patricia Sommi, Aashish Srinivas, Danielle Stephanie Sullivan, Cristian Camilo Taborda, Samuel Erskine Tanner, Harrison Michael Tasoff, Rebecca Teng, Megan Elizabeth Thompson, Erik Sigurd Tvetenstrand, Niels John Verosky, Zhengyang Wang, Alexandra Margot Werth, Kathryn M Wu, Patricia Joy Zarate, Mengxi Zhang

## Tau Beta Pi

Imoleayo Samson Abel, Kyle Raymond Knapp,
Daniel Adam Kowalyshyn, Katie Renae
Samuelson, Noah Adam Sterngold

## 17 Distinctions, Awards, and Fellowships

### 17.3 Pennsylvania Teacher Certification

Christina Kathleen Keller, Yana List, Diane Kimberley Marpozan, Margaret Hayley Regan,
Akunna Faith Uka, Brooke Marissa Wilkins

### 17.4 Awards and Prizes

The Bruce Abernethy Community Service Award was created by Bruce Abernethy ' 85 to support Swarthmore students, faculty, and staff involved in community service. Awarded to Ryan Greenlaw '15.
The Adams Prize is awarded each year by the Economics Department for the best paper submitted in quantitative economics. Awarded to Benjamin Wolcott '14.
The Stanley Adamson Prize in Chemistry was established in memory of Stanley D. Adamson '65. It is awarded each spring to a well-rounded junior majoring in chemistry or biochemistry, who, in the opinion of the department, gives the most promise of excellence and dedication in the field. Awarded to Julia Murphy '15.
The American Chemical Society Scholastic Achievement Award is given to the student whom the Department of Chemistry and Biochemistry judges to have the best performance in chemistry and overall academic achievement. Awarded to Elena Kingston '14.
The American Chemical Society Undergraduate Award in Analytical Chemistry is awarded annually to the student whom the Chemistry and Biochemistry Department judges to have the best academic performance in analytical chemistry and instrumental methods. Not awarded this year.
The American Chemical Society Undergraduate Award in Inorganic Chemistry is awarded annually to the student whom the Chemistry and Biochemistry Department judges to have the best academic performance in inorganic chemistry. Awarded to Matthew Elkins '14.
The American Chemical Society Undergraduate Award in Organic Chemistry is awarded annually to the student whom the Chemistry and Biochemistry Department judges to have the best academic performance in organic chemistry. Awarded to Michelle Ferreira '14.
The American Chemical Society/POLYED Undergraduate Award in Organic Chemistry is awarded annually to a sophomore whom the Chemistry and Biochemistry Department judges to have the best academic performance in the sophomore year sequence of organic chemistry and biochemistry. Awarded to Emily Gale '16.
The American Institute of Chemists Student Honor Awards are given to students whom the Chemistry and Biochemistry Department judge to have outstanding records in chemistry and overall academic performance. Awarded to Sang Woo Kim '14.

The Solomon Asch Award recognizes the most outstanding independent work in psychology, usually a senior course or honors thesis. Awarded to Rachel Claire Fresques '14.
The Boyd Barnard Prize, established by Boyd T. Barnard ' 17 is awarded by the music faculty each year to a student in the junior class in recognition of musical excellence and achievement. Awarded to Paolo-Alexander Debuque ' 15.
The James H. Batton '72 Award, endowed in his memory by G. Isaac Stanley '73 and Ava Harris Stanley '72, is awarded for the personal growth or career development of a minority student with financial need. Awarded to Aaron Jackson '16.
The Paul H. Beik Prize in History is awarded each May for the best thesis or extended paper on a historical subject by a history major during the previous academic year. Awarded to Steven Hazel '14.
The Believe Endowed Social Action Award was established in 2006 to enable students to spend the summer in a developing country working on a global social action project. The Mission of the Believe Award is "To support inspired global citizens who believe in the reality of a better world, and who believe that the key to peace and progress in the world is to develop personal connections in other cultures through social action and direct community engagement." The Believe award is administered through the Lang Center for Social Responsibility. Awarded to Eve DiMagno '15.
The Bobby Berman '05 Memorial Prize Fund was established in 2008 in his memory, by his family. It is awarded by the Physics Department to a graduating senior with a major in physics who has shown achievement, commitment and leadership in the field. Awarded to Margaret Regan '14.
The Tim Berman Memorial Award is presented annually to the senior man who best combines qualities of scholarship, athletic skill, artistic sensitivity, respect from and influence on peers, courage, and sustained commitment to excellence. Awarded to Anthony Collard '14.
The Black Alumni Prize is awarded annually to honor the sophomore or junior minority student who has shown exemplary academic performance and community service. Awarded to Steven McFarland '15.
The Black Cultural Center Director's Special Recognition Award is awarded for significant contributions to the Black community and campus-wide. Awarded to Chelsea Hicks '14, Paola Mero '14 and Kyle Pierce '14.
The Black Cultural Center Highest Academic Achievement Award recognizes the minority students from the graduating class who earned one of the highest grade point averages and contributed to the larger college community. Awarded to Naudia Williams '14.

## 17 Distinctions, Awards, and Fellowships

The Black Cultural Center Freshman of the Year Award recognizes the First Year student(s) who have been exceptional leaders and have made significant contributions to the Swarthmore black community. Awarded to Davis Logan '17.
The Black Cultural Center Leadership Award recognizes the graduating senior(s) who continues the legacy of Black student leadership and activism by constructively and proactively contributing to the Black Cultural Center and advocating for and acting on issues of concern to the larger campus community. Awarded to Rebecca Ahmad '14.
The Brand Blanshard Prize honors Brand Blanshard, professor of philosophy at Swarthmore from 1925 to 1945, and was established by David H. Scull '36. The Philosophy Department presents the award each year to the student who submits the best essay on any philosophical topic. Awarded to Joshua Chang '15.
The Sophie and William Bramson Prize is awarded annually to an outstanding student majoring in sociology and anthropology. The prize recognizes the excellence of the senior thesis, in either the course or external examinations program as well as the excellence of the student's entire career in the department. The Bramson Prize is given in memory of the parents of Leon Bramson, founding chairman of Swarthmore's Sociology and Anthropology Department. Awarded to Eleanor Pratt '14 and Benjamin Bernard-Herman '14.
The Heinrich W. Brinkmann Mathematics Prize honors Heinrich Brinkmann, professor of mathematics from 1933 to 1969, and was established by his students in 1978 in honor of his 80th birthday. Awards are presented annually by the Mathematics and Statistics Department to the student or students who submit the best paper on a mathematical subject. Awarded to Peter Ballen ' 14.
The William J. Carter '47 Grant is funded by the William J. Carter '47 Religious Harmony Fund, administered by the Religion Department, and supports a student summer research project or internship in keeping with William J. Carter's goal of "encouraging and promoting understanding, harmony, and respect among the various religions of the world." Awarded to Lo-Yuan Chou '15.
The Chemistry and Biochemistry Department Service Awards are given each year to the students (usually one junior and one senior) who have provided the department with the greatest service during the preceding academic year. Awarded to Peter Amadeo '15 and Benjamin Mercado '14.
The Susan P. Cobbs Scholarship is awarded to the most outstanding student(s) of classics in the rising senior class. It was made possible by a bequest of Susan P. Cobbs, who was dean and professor of classics until 1969, and by additional funds given in her memory. Awarded to Alex Moskowitz '15.

The Sarah Kaighn Cooper Scholarship, founded by Sallie K. Johnson in memory of her grandmothers, Sarah Kaighn and Sarah Cooper, is awarded to the member of the junior class who is judged by the faculty to have had the best record for scholarship, character, and influence since entering the College. Awarded to Michael Superdock '15.
The CRC Press Freshman Chemistry Achievement Award is awarded annually by the Chemistry and Biochemistry Department to the first-year student(s) who achieves the highest performance in the first-year chemistry curriculum. Awarded to Joshua Goldstein '17.
The Alice L. Crossley Prize in Asian studies is awarded annually by the Asian Studies Committee to the student or students who submit the best essays on any topic in Asian studies. First prize awarded to Collin Smith '14. Second prize awarded to Emma Saarel '14. Honorable Mention: Winnie Vien '16.
The Dunn Trophy was established in 1962 by a group of alumni to honor the late Robert H. Dunn, a Swarthmore coach for more than 40 years. It is presented annually to the sophomore male who has contributed the most to the intercollegiate athletics program. Awarded to John Lim '16.
The Robert S. DuPlessis Prize is awarded each May to a student for the best senior comprehensive research paper on a historical subject by a history major in the previous year. Awarded to Alison Roseberry-Polier '14.
The William C. Elmore Prize is given in recognition of distinguished academic work. It is awarded annually to a graduating senior majoring in physics, astrophysics, or astronomy. Awarded to Tae Kim '14.
The Lew Elverson Award is given in honor of Lew Elverson, who was a professor of physical education for men from 1937 to 1978 . The award is presented annually to the junior or senior man who has demonstrated commitment and dedication to excellence and achieved the highest degree of excellence in his sport. Awarded to Joseph Keedy ' 14.
The Flack Achievement Award, established by Jim and Hertha Flack in 1985, is given to a deserving student who, during his or her first two years at the College, has demonstrated leadership potential and a good record of achievement in both academic and extracurricular activities. Awarded to Aaron Jackson '17.
The Renee Gaddie Award. In memory of Renee Gaddie '93, this award is given by the music faculty to a member of the Swarthmore College Gospel Choir who is studying voice through the Music Department (MUSI 048: Individual Instruction) program. The award subsidizes the entire cost of voice lessons for that semester. Awarded to Daniel Cho '15 and Ariel Pearson '16.

## 17 Distinctions, Awards, and Fellowships

The Dorothy Ditter Gondos Award was bequeathed by Victor Gondos Jr. in honor of his wife, Class of 1930. It is given every other year by a faculty committee to a student of Swarthmore College who submits the best paper on the subject dealing with a literature of a foreign language. The prize is awarded in the spring semester. Preference is given to essays based on works read in the original language. The prize is awarded under the direction of the Literature Committee. Awarded to Hannah Kosman '14 and Isabella Smull '16.
The John Russell Hayes Poetry Prizes are offered for the best original poem or for a translation from any language. Awarded to Jacob Oet '16 and Tina Zhu '17.
The Eleanor Kay Hess Award is given in honor of "Pete" Hess, whose 33 years of service to Swarthmore College and Swarthmore students were exemplified by her love of athletics, leadership, hard work, fairness, and objectivity. This award is given to the sophomore woman who best demonstrates those qualities and has earned the respect and affection of her peers for her scholarship and dedication through athletics. Awarded to Katie Jo McMenamin '16.
The Philip M. Hicks Prizes are endowed by friends of Philip M. Hicks, former professor of English and chairman of the English Literature
Department. They are awarded to the students who submit the best critical essays on any topic in the field of literature. Awarded to Danielle Charette '14, and Sierra Eckert '14.
The Jesse H. Holmes Prize in Religion was donated by Eleanor S. Clarke '18 and named in honor of Jesse Holmes, a professor of history of religion and philosophy at Swarthmore from 1899 to 1934. It is awarded by the Religion Department to the student who submits the best essay on any topic in the field of religion. Awarded to Joshua Wolfsun '16. Honorable Mention to Benjamin Bernard-Herman '14 and Dylan Hillerbrand '14.
The Gladys Irish Award is presented to the senior woman who has best combined devotion to excellence in athletic performance with qualities of strong leadership and the pure enjoyment of sports activities at Swarthmore. Awarded to Katie Lytle '14.
The Ivy Award is made by the faculty each year to the man of the graduating class who is outstanding in leadership, scholarship, and contributions to the College community. Awarded to Jonathan Charles Arthur Molloy '14.
The Chuck James Literary Prize is awarded to the graduating senior who has made the greatest contribution to the literary life of the black community. Awarded to Yena Purmasir '14 and Naudia Williams '14.
The Michael H. Keene Award, endowed by the family and friends of this member of the Class of 1985, is awarded by the dean to a worthy student to honor the memory of Michael's personal
courage and high ideals. It carries a cash stipend. Awarded in confidence to a worthy member of the graduating class.
The Naomi Kies Award is given in her memory by her classmates and friends to a student who has worked long and hard in community service outside the academic setting, alleviating discrimination or suffering, promoting a democratic and egalitarian society, or resolving social and political conflict. It carries a cash stipend. Awarded to Paul Bierman '15. The Kwink Trophy, first awarded in 1951 by the campus managerial organization known as the Society of Kwink, is presented by the faculty of the Physical Education and Athletics Department to the senior man who best exemplifies the society's five principles: service, spirit, scholarship, society, and sportsmanship. Awarded to Richard Scott '14.
The Lang Award was established by Eugene M. Lang '38. It is given by the faculty to a graduating senior in recognition of outstanding academic accomplishment. Awarded to Sierra Clare Eckert '14.
The Leo M. Leva Memorial Prize was established by his family and friends and is awarded by the Biology Department to a graduating senior in biology whose work in the field shows unusual promise. Awarded to Patrick Ammerman '14, Marian Firke '14, Hannah Grunwald '14, Henry Kietzman '14, Dashiell Massey '14, Heidy Wang '14, Zhengyang Wang '14, and Kathryn Wu '14. The Linguistics Prizes were established in 1989 by contributions from alumni interested in linguistics. Two awards are presented annually, one for linguistic theory and one for applied linguistics, to the two students who, in the opinion of the program in linguistics, submit the best senior papers or theses in these areas. The Linguistics Prize in Applications of Theory was awarded to Carolyn Anderson '14. The Linguistics Prize in Linguistic Theory was awarded to Martha Wechsler (Bryn Mawr College) '14 and Micah Walter (Haverford College) '14.
The Engineering Award, founded by Thomas B. McCabe 1915, is presented each year to the outstanding engineering student in the senior class. A committee of the Engineering Department faculty chooses the recipient. Awarded to Katie Samuelson '14.
The Morris Monsky Prize in Mathematics was established by a gift from the children of Morris Monsky, who fell in love with mathematics at Boys' High and at Columbia University and maintained the passion all his life. This prize in his memory is awarded to a first-year student who has demonstrated outstanding promise and enthusiasm. Awarded to Benjamin Goodman '17.
The Kathryn L. Morgan Award was established in 1991 in honor of late Professor of History, Kathryn L. Morgan. The award recognizes the

## 17 Distinctions, Awards, and Fellowships

contributions of members of the African American community at the College to the intellectual and social well-being of African American students. The Morgan fund also supports acquisitions for the Black Cultural Center Library. The fund is administered by the Dean's Office and the Black Cultural Center in consultation with alumni. Awarded to Nina Johnson.
The Lois Morrell Poetry Award, given by her parents in memory of Lois Morrell '46, goes to the student who has submitted the best original poem in the annual competition for this award. The fund also supports campus readings by visiting poets. Awarded to Jocelyn Hawley '15.
The Morrell-Potter Summer Stipend in Creative Writing, intended to enable a summer's writing project, is awarded by the English Literature Department to a poet or fiction writer of exceptional promise in the spring of the junior year. Awarded to Ian Hoffman '15. Kimaya Diggs ' 15 is the Honorary Co-winner this year.
The Music 48 Special Awards (Freeman Scholars). Endowed by Boyd T. Barnard '17 and Ruth Cross Barnard '19 and named for James D. Freeman, professor emeritus of music, grants are given by the music faculty to students who show unusual promise as instrumentalists or vocalists. Awarded to Zahra Ahmed '15, Kimaya Diggs '15, Ameila Erskine '17, Ted Goh '14, William Markowitz '14, Kelley Langhans '16 and Shreyas Ravi '14. The A. Edward Newton Library Prize, endowed by A. Edward Newton, to make permanent the Library Prize first established by W.W. Thayer, is awarded annually by the Committee of Award to the undergraduate who shows the best and most intelligently chosen collection of books upon any subject. Particular emphasis is laid not merely upon the size of the collection but also on the skill with which the books are selected and upon the owner's knowledge of their subject matter. Awarded to Hanna King '15 (first prize), Emma Waitzman '14 (second prize), and Alison Ryland '14 (third prize).
The Oak Leaf Award is made by the faculty each year to the woman of the graduating class who is outstanding in leadership, scholarship, and contributions to the College community. Awarded to Naudia Rose Williams '14.
The May E. Parry Memorial Award, donated by the Class of 1925 of which she was a member, is presented by the Physical Education and Athletics Department faculty to the senior woman who has made a valuable contribution to the College by her loyalty, sportsmanship, and skill in athletics. Awarded to Lia Carlson '14.
The Drew Pearson Prize is awarded by the dean on the recommendation of the editors of The Phoenix, The Daily Gazette, and the senior producers of War News Radio at the end of each staff term to a member of those respective organizations for excellence in journalism. The
prize was established by the directors of The Drew Pearson Foundation in memory of Drew Pearson, Class of 1919. It carries cash stipends. Awarded to Caroline Batten '14, Issac Kornblatt-Stier '16 and Elena Ruyter '14.
The John W. Memorial Prize, established in 1969 in memory of an engineering student of the Class of 1969, is awarded by the Engineering Department to the outstanding student entering the junior class with a major in engineering. Awarded to Ascanio Guarini '16.
The William Plumer Potter Public Speaking Fund and Prize in Fiction was established in 1927. It provides funds for the collection of recorded literature and sponsors awards for the best student short stories. The fund is also a major source of funds for campus appearances by poets and writers. Awarded to Juliette Rose Wunrow '16, Caroline Batten '14, and Ariel Swyer '14.
The Ernie Prudente Sportsmanship Award is given in honor of Ernie Prudente, a coach and professor at Swarthmore College for 27 years, to the male and female athletes that, through their participation, have demonstrated the characteristic exemplified by Ernie: sportsmanship, love of the sport, and respect for their teammates. Awarded to Rose Pitkin '14 and Callen Rain '15.
The Dinny Rath Award is administered by the Athletics Department and is given to a senior woman who demonstrates the highest degree of achievement, commitment to intercollegiate athletics, high regard for fair play, and awareness of the positive values of competition. Awarded to Megan Brock '14.
The Jeanette Streit Rohatyn '46 Fund is used to grant the "Baudelaire Award" to a Swarthmore student participating in the College Program in Grenoble. The student must be considering a major or a minor in French, and use the award, which is granted on the recommendation of the program director, to travel in metropolitan France. Awarded to Joelle Hageboutros '16.
Judith Polgar Ruchkin Prize Essay is an award for a paper on politics or public policy written during the junior or senior year. The paper may be for a course, a seminar, or an independent project, including a thesis. The paper is nominated by a faculty member and judged by a committee of the Political Science Department to be of outstanding merit based on originality, power of analysis and written exposition, and depth of understanding of goals as well as technique. Awarded to Carmen Smith-Estrada '14.

The Robert Savage Image Award recognizes outstanding biological images taken by Swarthmore biology students. The award is supported by the Robert Savage Fund which was established by students and colleagues to honor Professor Robert E. Savage, the first professor of Cell Biology at Swarthmore College. Awarded to

## 17 Distinctions, Awards, and Fellowships

Gracie Farley '17, Kathryn Barron '16, and Natalie Campen '14.
The Frank Solomon Jr. Student Art Purchase Fund permits the Art Department to purchase outstanding student art from the senior major exhibitions. Awarded to Jonathan C.A. Molloy '14 and Lucy A. Whitacre '14.
The Hally Jo Stein Award, endowed in her memory by her brother Craig Edward Stein '78, is given to an outstanding student who the dance faculty believes best exemplifies Hally Jo's dedication to the ideals of dance. It carries a cash stipend. Awarded to Rachel Fresques '14.
The Karen Dvonch Steinmetz '76 Memorial Prize, endowed in her memory by many friends and family, is awarded annually to a Swarthmore medical school applicant who demonstrates a special compassion for others. Awarded to MinhDuyen Nguyen '13, Aarti Rao '14 and Heidy Wang '14.
The Pan American Award is administered by Latin American Studies. Awarded to Haydil Henriquez '14.
The Peter Gram Swing Prize is awarded by the music faculty to an outstanding student whose plans for graduate study in music indicate special promise and need. The endowment for the prize was established in the name of Ruth Cross Barnard, Class of 1919. Awarded to Jeremy Rapaport-Stein '14.
The Melvin B. Troy Prize in Music and Dance was established by the family and friends of Melvin B. Troy '48. Each year, it is given by the Music and Dance Department to a student with the best, most insightful paper in music or dance or composition or choreography. This award carries a cash stipend. Awarded to Christine Aruffo '14 (Dance), Robert Fain '14 (Music).
The Albert Vollmecke Engineering Service Award was established in 1990 in memory of Albert Vollmecke, father of Therese Vollmecke '77. The Vollmecke Prize is awarded for service to the student engineering community. The Engineering Department administers the fund. Awarded to David Nahmias '14.
The Eugene Weber Memorial Fund was established in honor of the late Eugene Weber, professor of German. The Weber Fund supports study abroad by students of German language and literature. Awarded to Jasmin RodriquezSchroeder.
The Jerome H. Wood Memorial Excellence and Leadership Award was created in 1997 in honor of the late Professor Jerry Wood and is awarded annually. Awarded to Paul Cato '14 and Akunna Uka '14.

### 17.5 Faculty Award

The Flack Faculty Award is given for excellence in teaching and promise in scholarly activity by a
member of the Swarthmore faculty to help meet the expenses of a full year of leave devoted to research and self-improvement. This award acknowledges the particularly strong link that exists at Swarthmore between teaching and original scholarly work. The president gives the award based upon the recommendation of the provost and the candidate's academic department. This award is made possible by an endowment established by James M. Flack and Hertha Eisenmenger Flack '38.

### 17.6 Fellowships

The Stanley Adamson Summer Internship for Research in Chemistry is endowed in memory of Stanley D. Adamson ' 65 by his parents, June and George Adamson. It provides funding for the summer research of a well-rounded rising student who, in the opinion of the Chemistry and Biochemistry Department, gives great promise of excellence and dedication in the field. Awarded to Sebastian Kyllmann '16.
The Altman Summer Grant was created by Shingmei Poon Altman '76 in memory of her husband, Jonathan Leigh Altman '74. It is awarded by the Art Department to a junior who has strong interest and potential in studio arts. It provides support for purposeful work in the studio arts during the summer between junior and senior year. Awarded to Elizabeth Kramer '15.
John W. Anderson '50 Memorial Internship was created by his wife, Janet Ball Anderson '51. The Anderson internship supports students teaching science to disadvantaged children, with preference for students interested in working with children in grades $\mathrm{K}-12$. Not awarded this year.
In 2005, Bernard Bailyn established The Lotte Lazarsfeld Bailyn '51 Research Endowment in honor of his wife, the T. Wilson Professor of Management, emerita, at MIT. The fund supports a student summer research fellowship for a rising junior or senior woman majoring in mathematics, science, or engineering who intends to go into graduate studies in one or more of these fields. Not awarded this year.
The David Baltimore/Broad Foundation
Endowment was established in 2007 by a grant from the Broad Foundation at the request of David Baltimore '60. This fellowship is awarded to a student doing summer research in the natural sciences or engineering with a preference given to a student engaging in mentored off-campus laboratory research and with letters of support from an on-campus faculty mentor. Awarded to Eduardo Umana Gomez '15 and Jonathan White '16.
The Monroe C. Beardsley Research Fellowship and Internship Fund was established in 2004 to support students in the humanities by providing grants to encourage and facilitate research, original scholarship, and professional development in the

## 17 Distinctions, Awards, and Fellowships

areas of art, classics (literature), English literature, modern languages and literature, music and dance, philosophy, religion, and theater. Named after renowned contemporary philosopher Monroe C. Beardsley, a professor of philosophy at Swarthmore for more than 20 years, the fund is administered by the Division of the Humanities and the Provost's Office. Awarded to Aaron Kroeber '16, Jameson Lisak '15, Emma Madarasz '15, Raisa Reyes '15, Elizabeth Upton '16, and Zoe Wray '16.
The William Carter '47 Religious Harmony Fund was established in 2011. The fund's purpose is to encourage and promote understanding, harmony and respect among the various religions of the world. Awarded to Lo-Yuan Chou '15.
The Class of 1961 Fund for the Arts and Social Change was established by the Class of 1961 in honor of its 50th Reunion. This fund provides a Summer Social Action Award to one or more students each summer with a preference for projects in which the arts and social change are joined. This reflects the distinctive interests of the Class of 1961 in the art, theater, music and dance of their time and their commitment to making a difference in the world. The recipient(s) will be chosen by the Lang Center for Civic and Social Responsibility. Summer Social Action Awards are granted to students on a competitive basis so that they may spend a summer engaging meaningfully with non-profit organizations, grass-roots advocacy groups, or public service agencies. Awarded to John Lenahan '15.
The Class of 1962 Student Summer Fellowship was established in 2012 by contributions from class members, on the occasion of their 50th Reunion celebration. The fund is intended to provide enriching learning experiences for students by supporting work, study or research during the summer. Awarded to Anita CastilloHalvorssen '15 and Ravenna Thielstrom '16.
The Cilento Family Community Service Internship was established in 2002 by Alexander Cilento ' 71 to support Swarthmore College students who carry out community service projects that benefit lowincome families in the area. The Swarthmore Foundation administers the fund. Awarded to Keira James '15.
The Susan P. Cobbs Prize Fellowship is awarded to one or more students to assist them in the study of Latin or Greek or with travel for educational purposes in Italy or Greece. It was made possible by gifts from alumni, managers, faculty members, and friends made in memory of Susan P. Cobbs, who was dean and professor of classics until 1969. Awarded to Emma King '16, Julia Nee '15, and Alex Moskowitz '15.
The Hilde Cohn Student Fellowship Endowment was established in 2007 by Walter H. Clark, Jr. '54 to honor a former faculty member who conveyed to her students her love of the German
language and literature. The fund shall be used to support students participating in academic study, internships, and research fellowships in Germanspeaking countries or in immersive German language programs. It will be administered by the German section of the Modern Languages and Literatures Department. Awarded to Anna Jensen and Laura Katz.
The Joel Dean Fellowships were established in 1982 and are supported by gifts from the Joel Dean Foundation. These fellowships are awarded for summer research in the social sciences. Awarded to Andrew Dorrance '15, Paul Green
'16, Steven Gu '15, Lucia Luna-Victoria '15, Sara Morell '15, Rehana Omardeen '15, Allison Shultes '15, Matthew Goldman '15, Sarah Nielsen '16, and Peter Nilsson '15.
The Deborah A. DeMott '70 Student Research and Internship Fund was established by Deborah A. DeMott '70 in 2004. The fund is awarded to students following their second or third years on the recommendation of the Provost's Office in conjunction with an advisory panel of faculty. The recommendation is based on the caliber and potential of the student project proposals. Awarded to Patrick Ross '15.
The Robert W. Edgar Endowed Fund for Internships was created in 2013 by contributions from Robin M. Shapiro. The fund, named for the late Bob Edgar, who represented the Seventh District, including Swarthmore, in the United States House of Representatives, is intended to provide enriching learning experiences for Swarthmore students by supporting work experience in any field during the summer months, with preference given to those whose internship opportunities stem from previously held externships. Two fellowships will be administered by the Career Services Office each summer.
The Robert Enders Field Biology Award was established by his friends and former students to honor Dr. Robert K. Enders, a member of the College faculty from 1932 to 1970. It is awarded to support the essential costs of both naturalistic and experimental biological studies in a natural environment. The Biology Department gives the field research award annually to Swarthmore students showing great promise in biological field research. Awarded to Rachel Boone '17, Harris Hoke '15, and Rudolfo Perez '16.
The Anne and Alexander Faber International Travel Fund was established by family and friends in honor of Anne Faber and in memory of Alexander L. Faber, parents of three Swarthmore graduates. It provides grants for travel outside the United States and Canada for students majoring in the humanities. Awarded to Alex Moskowitz '15.
The David E. Fisher '79-Arthur S. Gabinet '79 Summer Internship for Biological Sciences and Public Service was established by Andrew H. Schwartz '79 and his wife, Dagmar Schwartz, to

## 17 Distinctions, Awards, and Fellowships

honor Andy's friends and classmates, David E. Fisher '79 and Arthur S. Gabinet '79, and supports students working in life sciences or public service who exemplify Fisher's and Gabinet's values, pursuing studies out of love of learning and devotion to the improvement of the human condition. Awarded to Emily Lipner '15.
The Hannay Chemistry Fund was established by a gift from the General Signal Corp. in honor of N. Bruce Hannay '42. The fund will provide support for a student's summer research in chemistry. Bruce Hannay was a research chemist with Bell Laboratories and received an honorary doctor of science degree from Swarthmore in 1979. Awarded to Raundi Quevedo '16 and Joshua Turek-Herman '16.
The Haskin Fernald Student Summer Fellowship was established in 2007 by Guy Haskin Fernald '94 and Lia Haskin Fernald '94 and is intended to broaden and enrich the experience of a student by supporting a work or study experience dealing with public health issues of global significance, within a public or non-profit setting, in a lower or middle-income country. A student who has identified an opportunity to do research or volunteer work abroad can submit a proposal for support for travel and/or living expenses. Not awarded this year.
The Hay-Urban Prize in Religion is named in honor of Stephen N. Hay '51 and P. Linwood Urban, professor emeritus of religion. Thanks to a generous gift from Stephen Hay '51, and funds given in honor of Professor Urban's distinguished service as a Religion Department faculty member, the Hay-Urban Prize assists in supporting one student internship, summer study, or research in the area of religion studies. Awarded to Canaan Breiss '16.
The Samuel L. Hayes III Award. Established in 1991 through the generosity of members of Swarthmore Alumni in Finance, the Hayes Award honors the contributions made by Samuel L. Hayes III '57, former member of the Board of Managers and the Jacob Schiff Professor of Business at the Harvard Business School. The Economics Department administers the award, which provides support for student summer research in economics. Awarded to KassandraSparks '15.
The Hopkins International Public Policy Internship Endowment was established in 2005 to support student travel to Africa, Asia or Europe for an internship dealing with policy issues of global significance, working within a public or non-profit organization. The internship, for any appropriate interval, such as a summer or semester, shall be administered by the Provost's Office and the Public Policy Program. Awarded to Jodie Goodman '16.
The William L. Huganir Summer Research Endowment is awarded each spring by the chairs
of the Social Science Division based on the academic interests of a student or students who wish to pursue summer research on global population issues. Not awarded this year. The Richard M. Hurd '48 Engineering Research Endowment was created in 2000 in memory of distinguished alumnus and former member of the Board of Managers Richard M. Hurd '48. The fund supports students interested in pursuing engineering research during the summer. Awarded to Daniel Palmer '16.
The Janney Fellowship, established through the bequest of Anna Janney DeArmond '32, is named in honor of the donor's grandmother, Anna Canby Smyth Janney, the donor's mother, Emily Janney DeArmond (1904), and the donor's aunt, Mary Janney Coxe (1906). It is awarded each year to a woman graduate of the College, preferably a member of the Religious Society of Friends, to assist graduate study in the humanities in this country or elsewhere. This renewable fellowship is awarded annually by the faculty to seniors or graduates of the College for the pursuit of advanced work on the basis of scholarship, character and need. Applications must be submitted by April 20. Awarded to Sydni Alder '12, Rachel Branker '12, Katharyn Schultz '13, and Renne Sevier '08.
The Giles K. '72 and Barbara Guss Kemp Student Fellowship Endowment was established by Giles and Barbara Kemp in 2005 to support student internships and research projects with a preference for students whose fellowship experience will be abroad. Awarded to Ava Cotlowitz '15 and Amy DiPierro '15.
The Kaori Kitao Humanities Research Fellowship. Kaori Kitao, Professor Emerita in Art History, established this research fellowship in 2013 in celebration of her 80th birthday. The fund supports students in the humanities by providing grants to encourage and facilitate historical research, original scholarship, and professional development, with a preference for Italian Studies, Japanese Studies, and Performing Arts. The fund is administered by the Division of the Humanities and the Provost's Office. Not awarded this year.
Howard G. Kurtz, Jr. and Harriet B. Kurtz Memorial Fund was established to honor their lifelong dedication to ensuring a world at peace through the systematic prevention of war including the use of outer space technologies to assist in the design and implementation of war prevention systems. Awarded to Christen Boas Hayes '16 .
The Olga Lamkert Memorial Fund is income from a fund established in 1979 by students of Olga Lamkert, professor of Russian at Swarthmore College from 1949 to 1956. It is available to students with demonstrated financial need who wish to attend a Russian summer school program in this country or summer or semester programs in Russia. Awards based on merit and financial need

## 17 Distinctions, Awards, and Fellowships

will be made on the recommendation of the Russian section of the Modern Languages and Literatures Department. Awarded to Douglas Arbuckle '17, Jonathan Cohen '16, Cara
Ehlenfeldt '16, Joseph Millman '17, Cyrus Newlin '16.
The Landis Community Service Fund was established in 1991 by James Hormel and other friends of Kendall Landis '48 in support of his 18 years of service to the College. The fund provides grants for students (including graduating seniors) to conduct service and social change projects in the city of Chester. Awarded to The Dare2Soar Tutoring Program.
The Lande Research Fund was established in 1992 through a gift by S. Theodore Lande to provide support for student research in field biology both on and off campus. Grants are awarded at the direction of the provost and the chair of the Biology Department. Awarded to Sophia Frantz '16, Sophia Gabriel '15, Kelley Langhans '16, Taylor Tai '15, and David Tian 17.
The Eugene M. Lang Summer Initiative Awards are made each spring to 20 students who are selected by the provost in consultation with the appropriate division heads to support facultystudent research, independent student research, and student social service activity specifically related to research objectives and tied to the curriculum, under the supervision of faculty members. Awarded to Rachael Aikens '17, Madeleine Booth '15, Daniel Cho '15, Joseph Corcoran '16, Daniel Creem '16, Supriya Davis '15, Danielle Delpeche '15, Kimaya Diggs '15, Isaac Dulin '16, Zoeth Flegenheimer '15, Jared Golant '16, Joan Huang '15, Ariel Hwang '15, Kiera James '15, Lillian Jamison-Cash '15, Hanna King '15, John Lenahan '15, Joshua McLucas '15, Sominder Mohan '15, John Proios '15, Jihoon Sung '16, and Chi Zhang '15.
The Genevieve Ching-wen Lee '96 Memorial Fund was established in her memory by family and friends and recognizes the importance of mutual understanding and respect among the growing number of ethnic groups in our society. The fund supports an annual lecture by a prominent scholar of Asian American studies and/or an annual award to two students to assist in projects pertaining to Asian American studies. Awarded to Bryan Chen'15.
The Hannah A. Leedom Fellowship was founded by the bequest of Hannah A. Leedom. This award is granted on recommendation of the Committee on Fellowships and Prizes for a proposed program of advanced study that has the approval of the faculty. Applications must be submitted by April 20. Awarded to Ahmad Ammous '14, Franklin Huntington '12, Bradford Kim '14, and Sam Sussman '13.
The Lenfest Student Fellowship Endowment was established in 2008 by Gerry and Marguerite

Lenfest. The fund shall be used to support student participation in research fellowships, internships, and other summer opportunities, and selection will be made by the Provost's Office and the Lang Center for Civic and Social Responsibility. Awarded to Joshua Chang '15, Natalie Gainer '15, Jocelyn Hawley '15, Samantha Pellegrino '15, and David Ranshous '16.
The Joshua Lippincott Fellowship was founded by Howard W. Lippincott, of the Class of 1875, in memory of his father. This award is granted on recommendation of the Committee on Fellowships and Prizes for a proposed program of advanced study that has the approval of the faculty. Applications must be submitted by April 20. Awarded to M. Samuel Goodman '10, Jonathan Kwan '11, and Daniel Minwoo Pak '12.
The John Lockwood Memorial Fellowship was founded by the bequest of Lydia A. Lockwood, New York, in memory of her brother, John Lockwood. It was the wish of the donor that the fellowship be awarded to a member of the Society of Friends. The Lockwood Fellowship is renewable for a second year. This award is granted on recommendation of the Committee on Fellowships and Prizes for a proposed program of advanced study that has the approval of the faculty. Applications must be submitted by April 20. Awarded to Michael Edmiston '12.

The Joanna Rudge Long '56 Conflict Resolution Endowment was created in 1996 in celebration of the donor's 40th reunion. The stipend is awarded to a student whose meritorious proposal for a summer research project or internship relates to the acquisition of skills by elementary school or younger children for the peaceful resolution of conflict. Awarded to Sadie Rittman '16.
The Julia and Frank L. Lyman '43 Student Summer Research Stipend was created in February 2000. It is awarded each spring by the provost upon receiving recommendations from members of the faculty involved with peace and conflict studies. Awarded to Yein Pyo '16 and Sabrina Singh '15.
The Penelope Mason '57 Memorial Fund was established to support student and faculty projects in Asian Studies. Students may apply for support for summer research projects in Asian Studies, as well as intensive summer language study in Asian languages contributing to the student's continuing course of studies, including but not limited to Asian Studies majors. Awarded to Chayanon Ruamcharoen '15 and Victoria Shepard '15.
The Thomas B. McCabe Jr. and Yvonne Motley McCabe Memorial Fellowship. This fellowship, awarded annually to graduates of the College, provides a grant toward an initial year of study at the Harvard Business School, or at other business schools as follows: the University of Chicago, Massachusetts Institute of Technology, Northwestern University, the University of

## 17 Distinctions, Awards, and Fellowships

Pennsylvania, or Stanford University. The
McCabe Fellowship is renewable for a second year on the same program. Yvonne and Thomas B.
McCabe Jr. lived in Cambridge, Mass., for a time, and he received an M.B.A. from Harvard and was a visiting lecturer there. In selecting the recipient, the Committee on Fellowships and Prizes follows the standards that determine the McCabe Achievement Awards, giving special consideration to applicants who have demonstrated superior qualities of leadership. Young alumni and graduating seniors are eligible to apply.
Applications must be submitted by April 20. Awarded to John Patrick Heagy '08, and Nachiketa '09.
The Norman Meinkoth Field Biology Award was established by his friends and former students to honor Dr. Norman A. Meinkoth, a member of the College faculty from 1947 to 1978. It is awarded to support the essential costs of the study of both naturalistic and experimental biological studies in a natural environment. The intent of this fund is to facilitate the joint participation of Swarthmore students and faculty in field biology projects, with priority given to marine biology. The awards are given annually by the Biology Department. Awarded to Justin Sui '15.
The Norman Meinkoth Premedical Research Fund was established in 2004 by Marc E. Weksler '58 and Babette B. Weksler '58 to honor Norman A. Meinkoth's long service as a premedical adviser to students at Swarthmore College, where he was professor of biology for 31 years and chairman of the department for 10 years. The funds are awarded on the basis of scientific merit to a rising junior or senior premedical student to allow the pursuit of laboratory research in the sciences on or off campus. The Provost's Office administers the fund. Awarded to Kate Amodei '15.
Mellon Mays Undergraduate Fellowship Program. The Andrew W. Mellon Foundation has provided a grant to establish an undergraduate fellowship program intended to increase the number of minority students, and others, who choose to enroll in doctoral programs and pursue academic careers. The foundation's grant provides term and summer stipends for students to work with faculty mentors as well as a loan-forgiveness component to reduce undergraduate indebtedness for those fellows who pursue graduate study. The fellowships are limited to the humanities, a few of the social sciences, and selected physical sciences. A faculty selection committee invites nominations of sophomores in February and awards the fellowships in consultation with the dean and provost. Awarded to Cortnie Belser '15, Amanda Chen '16, Uriel Medina Espino '16, Jareema Hylton '16 Vasomnoleak Ly '15, Tania Uruchima '16, and May Quinn Wong '16.
The James H. '58 and Margaret C. Miller
Internship for Environmental Preservation enables a Swarthmore student to engage in meaningful
work directed toward the preservation of the environment, including such activities as environmental education, environmental justice, habitat preservation and restoration, issues dealing with environmentally sustainable technologies and economies, and relevant public policy. This may take the form of an internship with an organization which is committed to a sustainable future. The Nature Conservancy, American Farmland Trust, and Natural Resources Defense Council are current examples of organizations engaging in such work. The Award is intended to encourage a student to explore a career in public policy relating to preserving the environment for future generations. The Lang Center for Civic and Social Responsibility selects the internship recipient. Awarded to Katherine Aronoff '14.
The Lucretia Mott Fellowship was founded by the Somerville Literary Society and is sustained by the contributions of Swarthmore alumnae. It is awarded each year to a senior woman or alumna who is to pursue advanced study in an institution approved by the committee. Applications must be submitted by April 20. Awarded to Jessica Adomako '13, Rebecca Ahmad '14, Kelsey Johnson '13, Caitlin O'Neil '13, Adriana Popa '12, Athena Samaras '07, and Jacqueline Small '13.
The John W. Nason Community Service Fellowship. The John W. Nason Community Service Fellowship celebrates the contributions of Swarthmore's eighth president by supporting students pursuing off-campus community service related to their academic program. The Nason Fellowship was initiated by members of the Class of 1945 in anticipation of their 50th reunion. The Nason Fellowship is administered by the Swarthmore Foundation. Awarded to Pendle
Marshall-Hall '14, Han Ding '14, Alison
Roseberry-Polier '14, Patricia Gutierrez '15, Laura Rigell '15.
The Helen F. North Fund in Classics, established in 1996 by Susan Willis Ruff ' 60 and Charles F.C. Ruff '60 to honor the distinguished career of Helen F. North and her enduring impact on generations of Swarthmore students, is awarded to support the program of the Classics Department. At the discretion of the department, it shall be used to fund annually the Helen F. North Distinguished Lectureship in Classics and, as income permits, for a conference or symposium with visiting scholars; summer study of Greek or Latin or research in classics-related areas by students majoring in the field; or study in Greece or Italy in classics by a graduate of the department. Awarded to Aaron Kroeber '16.
The Arthur S. Obermayer '52 Summer Internship was established in 2005 and is intended to broaden and enrich the experience of a Swarthmore student. The grant shall be awarded with preference to a domestic student who is studying in a major that may not inherently offer an

## 17 Distinctions, Awards, and Fellowships

international opportunity. Awarded to Amy Amuquandoh '16 and Stephanie Braziel '15.
The Martin Ostwald Fund in Classics, established in 2012 by John Marincola ' 76 and other friends and colleagues to memorialize the distinguished career of Martin Ostwald and his enduring impact on generations of Swarthmore students, is awarded to support the program of the Classics Department. At the discretion of the department, it shall be used to fund annually the Martin Ostwald Distinguished Lectureship in Classics, and, as income permits, for a conference or symposium with visiting scholars; summer study of Greek or Latin or research in Classics-related areas by students; or study in Greece or Italy in Classics by a graduate of the department. Not awarded this year.
The Robert F. Pasternack Research Fellowship was established in 2005 by a gift from the estate of Thomas Koch, deceased husband of Jo W. Koch and father of Michael B. Koch '89. The fellowship honors a beloved member of Swarthmore's Chemistry Department and supports student summer research in chemistry. The fellowship shall be administered by the Provost's Office. Awarded to Peter Amadeo '15.
The J. Roland Pennock Undergraduate Fellowship in Public Affairs. The fellowship, endowed by friends of Professor J. Roland Pennock at his retirement in 1976 and in recognition of his many years of distinguished teaching of political science at Swarthmore, provides a grant to support a substantial research project (which could include inquiry through responsible participation) in public affairs. The fellowship, for Swarthmore undergraduates, would normally be held off campus during the summer. Preference is given to applicants from the junior class. Awarded to Anushka Mehta '15, Katy Montoya '15, Erik Myers '15, and Laura Rigell '15.
The Penrose International Service Fund provides a stipend to support participation in a project to improve the quality of life of a community outside North America. The project should involve direct interaction with the affected community and be of immediate benefit to them rather than action in support of social change at a regional or national level. The stipend will be available to a Swarthmore student from any class for a project in any country other than that of his or her own citizenship. The Lang Center for Civic and Social Responsibility administers the Penrose International Service Fund. Not awarded this year.
Phi Beta Kappa Fellowship. The Swarthmore Chapter of Phi Beta Kappa (Epsilon of Pennsylvania) awards a fellowship for graduate study to a senior who has been elected to Phi Beta Kappa and has been admitted to a program of advanced study in some branch of the liberal arts. Awarded to Nicholas Austen Allred '13.
The Simon Preisler Memorial Endowment was established in 2006 by Richard A. Barasch '75 and

Renee Preisler Barasch to honor the memory of Simon Preisler. Mr. Preisler, Renee’s father, was an Auschwitz survivor, and with this endowment the Baraschs's wish to create a permanent memorial of the human devastation that occurred during the Holocaust and the lack of adequate global response to the tragedy. The fund supports Ruach at Swarthmore as well as student summer internships and research fellowships in human rights, conflict resolution, and the promotion of peace and understanding. Preference will be given to students pursuing internships and research fellowships related to genocide and other largescale violent conflicts, projects involving peaceful prevention or intervention, non-violent resistance, or local peacemaking, reconciliation, and healing initiatives. Awarded to Jamal Dillman-Hasso '15.
The Project Japan Fund is used to support one student during the summer months to conduct research in Japan on contemporary issues. Awarded to Jong Seok Lee '17.
The Public Policy Program Internship Funding. The Public Policy Program provides travel (not travel to home area) and living expense support for students who minor in public policy working at an internship that fulfills the program's requirements. Awarded to Karl Barkley '15, Amanda Bosworth '16, Anita Desai '16, Brian Kaissi '15, Harrison Lands '15, Jessica Seigel '16, Duong Tran '15, and Mackenzie Welch '15
The Anwural Quadir Summer Research Fellowship was established in 2005 by Iqbal A. Quadir '81 to honor the memory of his father. This fellowship will enable a Swarthmore student to travel, conduct research, and/or explore and problem solve on issues related to Bangledesh and the student's major. Swarthmore's first fund to support research related to Bangladesh, this award will be determined by the provost, the chair of the interdisciplinary council, and the division chairs from the humanities, social sciences, and natural sciences and engineering. Not awarded this year.
The Robert Reynolds and Lucinda Lewis '70 Endowed Fund for Summer Research was established in 2013. The fund is intended to provide enriching learning experiences for Swarthmore students by supporting work, study, or research in the biological sciences during the summer months. The fund will be administered by the Provost's Office and awards are made in consultation with faculty in the Biology and Chemistry departments. Awarded to Iris Chan '17.
The Sager Fund of Swarthmore College was established in 1988 by alumnus Richard Sager '73, a leader in San Diego's gay community. To combat homophobia and related discrimination, the fund sponsors events that focus on concerns of the lesbian, bisexual, and gay communities and promotes curricular innovation in the field of lesbian and gay studies. The fund also sponsors an annual three-day symposium. The fund is administered by a committee of women and men

## 17 Distinctions, Awards, and Fellowships

from the student body, alumni, staff, faculty, and administration. In 2004, Richard Sager created an "internship" to provide funding for students in internships with nonprofit organizations whose primary missions address
gay/lesbian/bisexual/transgender issues. The Lang
Center for Civic and Social Responsibility administers the internship. Awarded to David Ortiz-Rhoton ' 16 .
The James H. Scheuer Summer Internship in Environmental and Population Studies Endowment was established in 1990. The Scheuer Summer Internship supports student research in environmental and public policy issues. The coordinators of the environmental studies and public policy concentrations select interns in alternate years. Awarded to Zoe Cina-Sklar '15, Benjamin Goloff '15, and Laura Hyder '16.
The Robin M. Shapiro '78 Endowed Fund for Summer Research was established in 2013. The fund is intended to provide enriching learning experiences for Swarthmore students by supporting work, study, or research in any field during the summer months. Two fellowships will be administered by the Provost's Office each summer, and awards are made in consultation with the faculty. Awarded to George Abraham '17 and Bradley Carter'15.
The Somayyah Siddiqi '02 Economics Research Fellowship, for economics research, is funded by T. Paul Schultz '61 in memory of Somayyah Siddiqi '02. Awarded to Leo Rayfiel '15 and Haydn Welch '15.
The David G. Smith Internship in Health and Social Policy, endowed by alumni, faculty,
friends, and former students of David G. Smith, is to support an internship in the social services, with priority for the field of health care, for a
Swarthmore undergraduate during the summer or a semester on leave. Not awarded this year.
Solodar Family Science and Engineering Summer Research Fund was established in 2006. The fund supports a summer research fellowship for a Swarthmore student of science or engineering, with a preference toward the chemical sciences. Awarded to Erik Jensen '15.
The Starfield Student Research Endowment was established by Barbara Starfield '54 and Phoebe Starfield Leboy '57 in 2004. The fund supports student summer research fellowships in social justice with a preference for students pursuing research in the areas of health services delivery/health policy and social, demographic, and geographic equity. Starfield and Leboy established the fellowships to honor their parents, Martin and Eva Starfield, educators who instilled a love of learning and social justice in their daughters. Awarded to Papa Kojo Botsio '15.
The Surdna Fellowships were established in 1979 by a gift from the Surdna Foundation and are awarded for summer research by Swarthmore
students in collaboration with a faculty member in any department in the Natural Sciences and Engineering Division. Awarded to Kathleen Baryenbruch '16, Katherine Bredder '15, Abigail Dove '16, Teo Gelles '16, Rebekah Gelpi '15, Jason Hua '15, Weite Liu '16, and Jorin Schug '15.
The Pat Tarble Summer Research Fund was established in 1986 through the generosity of Mrs. Newton E. Tarble. The Tarble Summer Fund supports undergraduate research. The Provost's Office administers the fund. Awarded to Jessica Jowdy '16.
The Martha E. Tyson Fellowship was founded by the Somerville Literary Society in 1913 and is sustained by the contributions of Swarthmore alumnae. It is awarded each year to a senior woman or alumna who plans to enter elementary or secondary-school work. The recipient of the award is to pursue a course of study in an institution approved by the committee.
Applications must be submitted by April 20. Awarded to Lauren Adderley '10, Spencer Jones '13, Ankhi Thakurta '12.
The Hans Wallach Research Fellowship, endowed in 1991 by colleagues and friends, honors the eminent psychologist Hans Wallach (1904-1998), who was a distinguished member of the Swarthmore faculty for more than 60 years. The fellowship supports one outstanding summer research project in psychology for a rising Swarthmore College senior or junior, with preference given to a project leading to a senior thesis. Awarded to Nathan Norem Cheek '15 and Robert Connor Heins '15.

### 17.7 Faculty Fellowships and Support

The Mary Albertson Faculty Fellowship was endowed by an anonymous gift from two of her former students, under a challenge grant issued by the National Endowment for the Humanities. It will provide an annual award of a semester's leave at full pay to support research and writing by members of the humanities faculty. Mary Albertson joined the Swarthmore faculty in 1927 and served as chair of the History Department from 1942 until her retirement in 1963. She died in May 1986.
The Janice Robb Anderson '42 Junior Faculty Research Endowment was established by Janice Robb Anderson '42 in 2001. The Anderson endowment supports faculty research, with preference for junior faculty members in the humanities whose research requires study abroad.
The George Becker Faculty Fellowship was endowed by Ramon Posel '50 under a challenge from the National Endowment for the Humanities, in honor of this former member of the English Department and its chairman from 1953 to 1970. The fellowship will provide a semester of leave at

## 17 Distinctions, Awards, and Fellowships

full pay for a member of the humanities faculty to do research and write, in the fields of art history, classics, English literature, history, linguistics, modern languages, music, philosophy, or religion but with preference given to members of the Department of English Literature.
The Brand Blanshard Faculty Fellowship is an endowed faculty fellowship in the humanities established in the name of philosopher and former faculty member Brand Blanshard, who taught philosophy at Swarthmore from 1925 to 1944. The fellowship will provide a semester leave at full pay for a member of the humanities faculty to do research and to write. On recommendation of the Selection Committee, a small additional grant may be available for travel and project expenses. Any humanities faculty member eligible for leave may apply. Fellows will prepare a paper about the work of their leave year and present it publicly to the College and wider community. The Blanshard Fellowship is made possible by an anonymous donor who was Blanshard's student at Swarthmore, and a challenge grant from the National Endowment for the Humanities.
The Constance Hungerford Faculty Support Fund was established in 2007 by Eugene M. Lang '38 to recognize Constance Cain Hungerford for her dedicated service as provost and faculty leader and for her outstanding contributions to Swarthmore's educational program. Connie Hungerford, an art historian, joined the Art Department in 1974 and served as provost from 2001 to 2011. This fund allows the provost to make grants to individual faculty members to support their professional responsibilities and scholarly and creative careers.
The Eugene M. Lang Faculty Fellowship is designed to enhance the educational program of Swarthmore College by contributing to faculty development, by promoting original or innovative scholarly achievement of faculty members, and by encouraging the use of such achievements to stimulate intellectual exchange among scholars. The fellowship will provide financial support for faculty leaves through a grant of about one-half the recipient's salary during the grant year. On recommendation of the Selection Committee, a small additional grant may be available for travel and project expenses and for library book purchases. The Selection Committee shall consist of the provost, three divisional chairs, and three others selected by the president, of whom at least two must be Swarthmore alumni. Any faculty member eligible for leave may apply. Fellows will be expected to prepare a paper or papers resulting from the work of their leave year, presented publicly for the College and wider community. The Selection Committee may wholly or partially support the cost of publishing any of these papers. These fellowships are made possible by an endowment established by Eugene M. Lang '38.

The Edmund Allen Professorship of Chemistry was established in 1938 by a trust set up by his daughter Laura Allen, friend of the College and niece of Rachel Hillborn, who served on the Board of Managers from 1887 to 1913.
The Franklin E. and Betty Barr Chair in Economics was established in 1989 as a memorial to Franklin E. Barr Jr. '48 by his wife, Betty Barr.
The Alfred H. and Peggi Bloom Professorship was established in 2002 by Eugene M. Lang '38 in honor of President Alfred H. and Peggi Bloom.
The Albert L. and Edna Pownall Buffington Professorship was established in 1964 by a bequest from Albert Buffington, Class of 1896 in honor of his wife, Edna Pownall Buffington, Class of 1898 .
The Dorwin P. Cartwright Professorship in Social Theory and Social Action was created in 1993 by Barbara Weiss Cartwright '37, to honor her husband, Dorwin P. Cartwright '37. The professorship is awarded for a period of five years to a full professor who has contributed to and has the promise of continuing major contributions to the understanding of how social theory can be brought to bear on creating a more humane and ethically responsible society.
Centennial Chairs. Three professorships, unrestricted as to field, were created in 1964 in honor of Swarthmore's centennial from funds raised during the Centennial Fund Campaign.
The Isaac H. Clothier Jr. Professorship of Biology was established by Isaac H. Clothier Jr. as a tribute of gratitude and esteem to Dr. Spencer Trotter, a professor of biology from 1888-1926.
The Isaac H. Clothier Professorship of History and International Relations was created in 1888 by Isaac H. Clothier, a member of the Board of Managers. Originally the professorship was granted in the field of civil and mechanical engineering. Clothier later approved its being a chair in Latin; in 1912, he approved its present designation.
The Morris L. Clothier Professorship of Physics was established in 1905 by Morris L. Clothier, Class of 1890.
The Julien and Virginia Cornell Visiting Professorship was endowed by Julien Cornell '30 and Virginia Stratton Cornell '30, former members of the Board of Managers, to bring professors and lecturers from other nations and cultures for a semester or a year. Since 1962, Cornell professors and their families from every corner of the world have resided on the campus so that they might deepen the perspective of both students and faculty.
The Alexander Griswold Cummins Professorship of English Literature was established in 1911 in honor of Alexander Griswold Cummins, Class of 1889, by Morris L. Clothier, Class of 1890.

The Howard N. and Ada J. Eavenson
Professorship in Engineering was established in
1959 by Mrs. Eavenson, whose husband graduated in 1895.
The Neil R. Grabois '57 Professorship was established in 2010 by Eugene M. Lang ' 38 to honor Neil Grabois, mathematician and educator. This fund supports a professorship in the division of natural sciences and engineering, with a preference for a member of the mathematics department.
The James H. Hammons Professorship was established in 1997 by Jeffrey A. Wolfson '75, to recognize the inspiring academic and personal guidance provided by James H. Hammons, professor of chemistry, who began his distinguished teaching career at Swarthmore in 1964. The professorship may be awarded in any division, with preference given to the Chemistry Department.
The Elizabeth and Sumner Hayward Professorship was established by Priscilla Hayward Crago '53 in 2013 in memory of her parents, Elizabeth and Sumner Hayward. This fund supports a full professorship awarded to an existing professor with preference for, in order, psychology, sociology, anthropology, English, Romance languages, or linguistics.
The James C. Hormel Professorship in Social Justice, established in 1995 by a gift from James C. Hormel '55, is awarded to a professor in any academic division whose teaching and scholarship stimulate increased concern for and understanding of social justice issues, including those pertaining to sexual orientation.
The Howard M. and Charles F. Jenkins Professorship of Quakerism and Peace Studies was endowed in 1924 by Charles F. Jenkins H'26 and a member of the Board of Managers, on behalf of the family of Howard M. Jenkins, a member of the Board of Managers, to increase the usefulness of the Friends Historical Library and to stimulate interest in American and Colonial history with special reference to Pennsylvania. The fund was added to over the years through the efforts of the Jenkins family and by a 1976 bequest from C. Marshall Taylor, Class of 1904.
The Walter Kemp Professorship in the Natural Sciences was established in 2006 by Giles K. "Gil" '72 and Barbara Guss Kemp. Gil and Barbara wanted to honor Gil's father, a retired psychiatrist, who "has always been an inspiration" and "a great believer in both science and education." The professorship is awarded with particular regard for combining professional engagement with excellence in teaching.
The William R. Kenan Jr. Professorships were established in 1973 by a grant from the William R. Kenan Jr. Charitable Trust to "support and encourage a scholar-teacher whose enthusiasm for learning, commitment to teaching, and sincere
personal interest in students will enhance the learning process and make an effective contribution to the undergraduate community."
The Eugene M. Lang Research Professorship, established in 1981 by Eugene M. Lang '38, a member of the Board of Managers, normally rotates every four years among members of the Swarthmore faculty and includes one year devoted entirely to research, study, enrichment, or writing. It carries an annual discretionary grant for research expenses, books, and materials.
The Eugene M. Lang Visiting Professorship, endowed in 1981 by Eugene M. Lang '38, brings to Swarthmore College for a period of one semester to 3 years an outstanding social scientist or other suitably qualified person who has achieved prominence and special recognition in the area of social change.
The Jane Lang Professorship in Music was established by Eugene M. Lang '38, to honor his daughter, Jane Lang '67. The Jane Lang Professorship is awarded to a member of the faculty whose teaching or professional activity promotes the centrality of music in the educational process by linking it to other disciplines.
The Stephen Lang Professorship of Performing Arts was established by Eugene M. Lang '38, to honor his son, Stephen Lang '73. The Stephen Lang Professorship of Performing Arts is awarded for five years to a member of the faculty whose teaching or professional activity promotes excellence in the performing arts at Swarthmore.
The Sara Lawrence Lightfoot Professorship was created by the College in 1992 in recognition of an unrestricted gift by James A. Michener '29. The professorship is named in honor of Sara Lawrence Lightfoot '66, Doctor of Humane Letters, 1989, and a former member of the Board of Managers. The Susan W. Lippincott Professorship of Modern and Classical Languages was endowed in 1911 through a bequest from Susan W. Lippincott, a member of the Board of Managers, a contribution from her niece, Caroline Lippincott, Class of 1881, and gifts by other family members.
The Edward Hicks Magill Professorship of Mathematics and Natural Sciences was created in 1888 largely by contributions of interested friends of Edward H. Magill, president of the College from 1872 to 1889, and a bequest from John M. George.
The Charles and Harriett Cox McDowell Professorship of Philosophy and Religion was established in 1952 by Harriett Cox McDowell, Class of 1887 and a member of the Board of Managers, in her name and that of her husband, Dr. Charles McDowell, Class of 1877.
The Mari S. Michener Professorship was created by the College in 1992 to honor Mrs. Michener, wife of James A. Michener '29, and in recognition of his unrestricted gift.

The Gil and Frank Mustin Professorship was established by Gilbert B. Mustin '42 and Frank H. Mustin '44 in 1990. It is unrestricted as to field.
The Richter Professorship of Political Science was established in 1962 by a bequest from Max Richter at the suggestion of his friend and attorney, Charles Segal, father of Robert L. Segal '46 and Andrew Segal '50.
The Scheuer Family Chair of Humanities was created in 1987 through the gifts of James H. Scheuer '42; Walter and Marge Pearlman Scheuer '48; and their children, Laura Lee '73, Elizabeth Helen '75, Jeffrey '75, and Susan '78 and joined by a challenge grant from The National Endowment for the Humanities.
The Howard A. Schneiderman '48 Professorship in Biology was established by his wife, Audrey M. Schneiderman, to be awarded to a professor in the Biology Department.
The Claude C. Smith '14 Professorship was established in 1996 by members of the Smith family and friends of Mr. Smith. A graduate of the Class of 1914, Claude Smith was an esteemed lawyer with the firm of Duane, Morris and Heckscher and was active at the College, including serving as chairman of the Board of Managers. This chair is awarded to a member of the Political Science or Economics departments.
The Henry C. and Charlotte Turner Professorship was established in 1998 by the Turner family. Henry C. Turner, Class of 1893 and J. Archer Turner, Class of 1905, served as members of the Board of Managers of Swarthmore College, as officers of the corporation, and as members of various committees. Henry Turner was founder of the Turner Construction Co.; his brother, J. Archer Turner, was the firm's president. Four generations of Turners have had ties with the College, and Sue Thomas Turner '35, wife of Robert C. Turner '36 (son of Henry C. Turner), is a board member emerita. Howard Turner '33, son of J. Archer Turner, has also been very active as a member of the Board of Managers over the years.
The J. Archer and Helen C. Turner Professorship was established in 1998 by the Turner family. Henry C. Turner, Class of 1893 and J. Archer Turner, Class of 1905, served as members of the Board of Managers of Swarthmore College, as officers of the corporation, and as members of various committees. Henry Turner was founder of the Turner Construction Co.; his brother, J. Archer Turner, was the firm's president. Four generations of Turners have had ties with the College, and Sue Thomas Turner '35, wife of Robert C. Turner '36 (son of Henry C. Turner), is a board member emerita. Howard Turner '33, son of J. Archer Turner, has also been very active as a member of the Board of Managers over the years.
The Henry C. and J. Archer Turner Professorship of Engineering was established with contributions and gifts from members of the Turner family in

## 18 Endowed Chairs

1946 in recognition of the devoted service and wise counsel of Henry C. Turner, Class of 1893 and his brother, J. Archer Turner, Class of 1905. Both were members of the Board of Managers.
The Daniel Underhill Professorship of Music was established in 1976 by a bequest from Bertha Underhill to honor her husband, Class of 1894 and a member of the Board of Managers.
The Marian Snyder Ware Director of Physical
Education and Athletics was endowed in 1990 by Marian Snyder Ware '38.
The Joseph Wharton Professorship of Political Economy was endowed by a trust given to the College in 1888 by Joseph Wharton, chair of the Board of Managers.
The Isaiah V. Williamson Professorship of Civil and Mechanical Engineering was endowed in 1888 by a gift from Isaiah V. Williamson.

## 19 Enrollment Statistics

### 19.1 Enrollment of Students by Classes (Fall 2013)

|  | Men | Women | Total |
| :--- | ---: | ---: | ---: |
| Seniors | 188 | 191 | 379 |
| Juniors | 185 | 203 | 388 |
| Sophomores | 182 | 186 | 368 |
| Freshmen | $\underline{195}$ | $\underline{194}$ | $\underline{389}$ |
|  | 0 | 0 | 0 |
| Graduate students | $\underline{3}$ | $\underline{7} \frac{7}{1}$ | 1534 |
| Special students | 753 |  |  |

Note: These counts include 88 students studying abroad.

| 19.2 Geographic Distribution of Students (Fall 2013) |  |  |
| :---: | :---: | :---: |
| Alabama ............................. 6 | North Dakota....................... 0 | Ghana ................................. 5 |
| Alaska................................. 5 | Ohio.................................. 27 | Greece ................................. 1 |
| Arizona ............................. 10 | Oklahoma ............................ 3 | Guatemala ........................... 2 |
| Arkansas............................. 4 | Oregon.............................. 20 | Hong Kong........................ 12 |
| California......................... 184 | Pennsylvania .................... 196 | India................................... 7 |
| Colorado ............................ 14 | Puerto Rico.......................... 0 | Indonesia ............................. 1 |
| Connecticut ........................ 46 | Rhode Island......................... 6 | Italy .................................... 2 |
| Delaware ........................... 22 | South Carolina...................... 5 | Jamaica............................... 2 |
| District of Columbia............ 14 | South Dakota....................... 0 | Japan................................... 3 |
| Florida .............................. 30 | Tennessee ............................ 8 | Kenya ................................. 1 |
| Georgia ............................. 16 | Texas ................................ 35 | Malaysia .............................. 2 |
| Guam .................................. 2 | Utah .................................... 7 | Mexico................................ 1 |
| Hawaii ................................ 2 | Vermont.............................. 9 | Myanmar ............................. 2 |
| Idaho.................................. 2 | Virgin Islands ...................... 0 | Nepal .................................. 3 |
| Illinois............................... 47 | Virginia............................. 41 | Netherlands ......................... 1 |
| Indiana................................ 7 | Washington ....................... 29 | New Zealand ........................ 2 |
| Iowa................................... 4 | West Virginia ....................... 0 | Nigeria................................ 2 |
| Kansas ................................ 3 | Wisconsin............................ 5 | Pakistan .............................. 3 |
| Kentucky ............................ 3 | Wyoming............................ 2 | People's Republic of China. 29 |
| Louisiana ............................ 9 | Total United States..........1,371 | Philippines........................... 1 |
| Maine................................ 14 |  | Romania .............................. 1 |
| Maryland ........................... 78 |  | Singapore ............................ 5 |
| Massachusetts..................... 72 | Austria ................................ 1 | South Korea....................... 31 |
| Michigan ........................... 19 | Bhutan ................................ 1 | Switzerland.......................... 2 |
| Military PO.......................... 0 | Bolivia ................................ 1 | Taiwan................................ 3 |
| Minnesota.......................... 18 | Brazil .................................. 4 | Thailand.............................. 2 |
| Mississippi........................... 5 | Canada................................ 5 | Trinidad \& Tobago ............... 1 |
| Missouri.............................. 7 | Chile ................................... 1 | Turkey ................................ 2 |
| Montana.............................. 1 | Croatia ................................ 1 | United Arab Emirates ........... 1 |
| Nebraska............................. 2 | Czech Republic .................... 1 | United Kingdom................... 3 |
| Nevada................................ 4 | Ecuador............................... 1 | Vietnam ............................... 3 |
| New Hampshire.................... 9 | Egypt .................................. 2 | Zimbabwe........................... 2 |
| New Jersey ...................... 124 | England............................... 1 | Total from abroad ........... 163 |
| New Mexico ........................ 4 | Ethiopia .............................. 1 |  |
| New York ........................ 168 | France ................................. 4 |  |
| North Carolina.................... 24 | Georgia ............................... 1 | GRAND TOTAL ........... 1,534 |

## 20 Course Credit and Numbering System

The semester course credit is the unit of credit. One semester course credit is normally equivalent to 4 semester hours elsewhere. Upper-class seminars and colloquia are usually given for 2 semester course credits. A few courses are given for 0.5 credit.

Courses are numbered as follows:

| 001 to 010 | Introductory courses <br> 011 to 099Other courses (Some of <br> these courses are not open <br> to first-year students or |
| :--- | :--- |
| 100 to 199 | sophomores.) |
| Seminars for upper-class <br> students and graduate |  |

The numbers for yearlong courses are joined by a
the entire year. For introductory language yearlong courses, credit is not given for the first semester's work only, nor is credit given for the first semester if the student fails the second semester. In cases where credit is not earned for the second half of a yearlong course, the first semester is excluded from counting toward degree credit, although the registration and grade for the first semester remain on the permanent record.
Course listings in this catalog are intended to facilitate planning, but are subject to change. A
better guide to course offerings in any particular semester is the schedule of courses available at the Registrar's website
www.swarthmore.edu/Admin/registrar/.
hyphen (e.g., 001-002) and must be continued for

## Credit Policy

Academic Period: Swarthmore College uses the semester course credit system, and lists semester course credits on the official Swarthmore College transcript. Excluding holidays, Swarthmore College has two semesters of fourteen or fifteen weeks, thirteen or fourteen instructional weeks including a mid-semester break, and one week of final examinations.

## Recommended instructional time: Our official

 normal student work load is four course credits per semester. One unit of Swarthmore College credit normally represents three to four hours of class or seminar time, with conference sessions and laboratory periods in addition. Conferencesections, professor-lead additional study sessions, and laboratories are usually three hours or more in length, and are not reflected on the transcript, but occur in many courses.
Recommended out of class time requirements: We advise students to plan to spend two to three hours of work for every hour of class attended. Our research shows that Swarthmore College students typically work at least two hours outside of class preparing for every hour of class attended. The typical student attends class or seminar for 12 or more hours per week, and prepares for class or seminar at least 24 hours per week.

## 20 Course Credit and Numbering System

## Subject Code Key

| ANCH | Ancient History | HIST | History |
| :--- | :--- | :--- | :--- |
| ANTH | Anthropology | INTP | Interpretation Theory |
| ARAB | Arabic | ISLM | Islamic Studies |
| ARTH | Art History | JPNS | Japanese |
| ASIA | Asian Studies | LASC | Latin American Studies |
| ASTR | Astronomy | LATN | Latin |
| BIOL | Biology | LING | Linguistics |
| BLST | Black Studies | LITR | Modern Languages and Literatures |
| CHEM | Chemistry and Biochemistry | MATH | Mathematics |
| CHIN | Chinese | MDST | Medieval Studies |
| CLST | Classical Studies | MUSI | Music |
| COGS | Cognitive Science | PEAC | Peace and Conflict Studies |
| CPLT | Comparative Literature | PHIL | Philosophy |
| CPSC | Computer Science | PHYS | Physics |
| DANC | Dance | POLS | Political Science |
| ECON | Economics | PPOL | Public Policy |
| EDUC | Educational Studies | PSYC | Psychology |
| ENGL | English Literature | RELG | Religion |
| ENGR | Engineering | RUSS | Russian |
| ENVS | Environmental Studies | SOAN | Sociology and Anthropology |
| FMST | Film and Media Studies | SOCI | Sociology |
| FREN | French | SPAN | Spanish |
| GMST | German | STAT | Statistics |
| GREK | Greek | STUA | Studio Art |
| GSST | Gender and Sexuality Studies | THEA | Theater |

## Footnote Key

1 Absent on leave, fall 2014.
2 Absent on leave, spring 2015.
5 Fall 2014.

3 Absent on leave, 2014-2015.
4 Absent on administrative leave,
6 Spring 2015.
7 Affiliated faculty. 2014-2015.

8 Ex-officio.

SYDNEY L. CARPENTER, Professor of Studio Art and Studio Art Coordinator
MICHAEL W. COTHREN, Professor of Art History
RANDALL L. EXON, Professor of Studio Art
CONSTANCE CAIN HUNGERFORD, Professor of Art History*
BRIAN A. MEUNIER, Professor of Studio Art ${ }^{2}$
PATRICIA L. REILLY, Associate Professor of Art History ${ }^{3}$
TOMOKO SAKOMURA, Associate Professor of Art History and Chair
LOGAN GRIDER, Assistant Professor of Studio Art
DEREK S. BURDETTE, Visiting Assistant Professor of Art History
THOMAS J. MORTON, Visiting Assistant Professor of Art History
MARY PHELAN, Visiting Assistant Professor of Studio Art (part time) ${ }^{6}$
RON TARVER, Visiting Assistant Professor of Studio Art (part time)
ANDREA PACKARD, List Gallery Director
STACY BOMENTO, Visual Resources Curator
DOUG HERREN, Studio Technician
JUNE V. CIANFRANA, Administrative Assistant

```
* Interim President of the College.
\({ }^{2}\) Absent on leave, spring 2015
Absent on leave, 2014-2015.
\({ }^{6}\) Spring 2015.
```


## The Academic Program

The Art Department offers two majors: art history and art. The art history major consists of eight credits in art history and one credit in studio art. The art major consists of four credits in art history and seven credits in studio art.

## Course Major

## Art History

Art history majors, course and honors, are required to take nine credits to fulfill major requirements. Nine credits must include one 2-credit seminar and the following:

1. ARTH 002 The Western Tradition (students are encouraged to take this early in their major program)
2. One course or seminar on art in the western tradition post-1800
3. One course or seminar on art outside the western tradition
4. ARTH 095 Cracking Visual Codes (strongly recommended in the junior year)
5. One credit in studio art

The remaining four credits will consist of other 1 credit art history courses and/or 2-credit art history seminars and/or a 2-credit thesis. For those majors considering graduate study in art history, it is strongly advisable to choose a series of courses that will provide geographical and historical breadth.
The Comprehensive Requirement
During the senior year, course majors will complete a comprehensive project. The requirement can also be satisfied by a thesis (see ARTH 180).

## Studio Art

All art majors, in both Course and Honors
Programs, are required to take 11 courses to fulfill
major requirements:

1. Seven credits of studio art:

STUA 001 Foundation Drawing, (or, STUA 001B First-Year Seminar)
Studio art course in a 2-D medium
Studio art course in a 3-D medium
One studio art elective
Junior Workshop (spring semester of junior year)
STUA 030 Senior Workshop 1
STUA 040 Senior Workshop 11
2. Four credits of art history, which must include ARTH 002 The Western Tradition.
3. Studio art majors can complete an art history minor as well with the completion of four art history credits in addition to those required by their studio art major.
Notes:

- Five credits in studio art, including the distribution in 2-D, 3-D, and Junior Workshop must be completed before entry to STUA 030 Senior Workshop 1.
The 2-D, 3-D, and advanced credit requirements must be taken at Swarthmore.
- Students are encouraged to consult with professors and advisers about art history selections relevant to their interests.
- The senior art major is required to mount a oneperson exhibition in the College gallery representing a culmination in their studio work. This exhibition and accompanying artist statement,
of no less than 2500 words, is the comprehensive examination for the art major.
- Senior exhibitions are scheduled during the last few weeks of the spring semester each year.
- There is no course minor in studio art.


## Course Minor

Art History Minor
The course minor in art history will consist of five credits in art history; four of the five credits must be taken at Swarthmore. Studio art majors can complete an art history minor with the completion of four art history credits in addition to those required by their studio art major.

## Honors

## Honors in Art History

Requirements for admission to the Honors Program do not differ from those for admission to the course major. Once admitted to the honors major, students will be expected to maintain an average of $\mathrm{B}+$ or better in all courses in art history.

## Major

1. An honors major in art history requires three 2credit preparations, consisting of three 2 -credit seminars or two 2-credit seminars and a 2-credit thesis (see ARTH 180). The normal prerequisite for any art history seminar is two credits of previous art history course work. Each seminar will be examined in a three-hour written examination and an individual 30-minute oral examination.
2. An honors major in art history must fulfill the requirements for a nine-credit course major.

## Minor

An honors minor in art history will take one 2 credit seminar, and must have taken at least two other courses in art history. Only one of those credits can be a transfer credit.

## Honors in Studio Art

Requirements for admission to the Honors Program do not differ from those for admission to the course major. Students will be expected to maintain an average of $\mathrm{B}+$ or better in all courses in studio art.

## Major

1. An honors major in art will present 2 preparations in studio art and 1 preparation in art history.
2. Each of the two studio preparations will consist of two paired studio courses. The examiner of each preparation will receive the syllabus for both courses and slides representing the body of work produced in them and will examine the student in an individual oral examination of 30 minutes.
a. One preparation pair will consist of STUA 030 Senior Workshop 1 and STUA 040 Senior Workshop 11.
b. The second pair might consist of an intermediate and an advanced course in a specific medium, or two courses with a different approach to the same medium, (ex: Pottery and Ceramic Sculpture, Drawing and Life Drawing), or, two related courses, (ex: Ceramic Sculpture and Sculpture, Drawing and Photography, Drawing and Works on Paper, Drawing and Painting)
All preparations for honors must be approved in advance by the department.
Notes:

- Studio courses taken at an institution outside of Swarthmore cannot count towards an honors studio preparation.
- Only courses taught by regularly teaching faculty in studio art can be applied toward a preparation. Department approval must be sought for credit from courses taught by regularly returning adjuncts.
- Honors preparations approved in the sophomore year must be followed. Changes to the academic program, as they relate to honors preparations, must be approved by the department.

3. The preparation in art history will consist of one 2-credit seminar.
a. The prerequisite for any art history seminar is two previous credits in art history.
b. All majors in art, whether course or honors, must do 4 credits of art history work. Studio faculty may recommend particular art history courses as most relevant to a student's studio interests.
4. Honors candidates in art must fulfill the course major requirements. The prerequisite for all studio work, unless waived, is STUA 001. The distribution requirements for 2-D and 3-D for the honors major in studio art are the same as those in course.
5. Honors study in studio art is comprised of a culminating exhibition of the student's studio work, with an accompanying artist essay of 3,750 to 5,000 words. Some of this work may figure in the selections of work presented for one or both of the course pairs described above, but the rationale for inclusion in the exhibition will differ. The artist essay will be sent to both examiners of studio preparations. A revision of a paper written previously for the art history preparation, will be sent to the art history examiner.
a. The senior honors study essay will differ from the artist essay written by course students in that it will integrate the preparations in studio and art history.
b. For honors majors, STUA 040 will count outside the major for purposes of calculating the 20 -course rule, since it serves as senior
honors study. It will be listed on the transcript not as STUA 040 but as Senior Honors Study
c. If a student drops out of Honors after the drop/add period in the last semester, the Senior Honors Study credit will receive a grade of NC. Senior Workshop 11 (STUA 040), assuming it had been successfully completed in the spring, will then be listed on the transcript with the appropriate grade.
d. Warning: if a student drops out of honors, Senior Workshop 11 no longer counts as outside the major, but as within. A student who has taken 12 other credits within the department, and who is graduating with the minimum of 32 credits will then have 13 in the major and only 19 outside. Honors studio art majors should be especially careful to take enough credits outside the department if they contemplate withdrawing from honors.

## Minor

1. An honors minor in studio art will present to the honors examiners one studio preparation
consisting of STUA 030 Senior Workshop 1 and STUA 040 Senior Workshop 11.
2. An art minor in studio art must meet the same course requirements as the course major in studio art (see above).
3. During the spring semester of the senior year a minor will write a 2,500 word artist essay to be sent to the examiner, along with the relevant syllabi and slides for the two-credit preparation.

## Major Application Process <br> Requirements for admission to the majors:

## Art History

1. Overall average of C or better in all courses taken during the two semesters preceding the time of application.
2. Completion of at least two courses in art history at Swarthmore with grades of B or better. For a double major the grade minimum is also $B$.

## Studio Art

1. Overall average of C or better in all courses taken during the two semesters preceding the time of application. For a double major the overall average must be $B$.
2. Completion of at least one course in art history and one course in studio art at Swarthmore with grades of B or better.
3. A student may be asked to present a portfolio as evidence of ability to see, describe, and analyze visual phenomena critically.

## Art Department Majors and the $\mathbf{2 0}$-Course

 RuleIt is a college requirement that 20 of the 32 credits required for graduation must be outside the major. This means that one can take no more than 12
courses in the major, unless one graduates with more than 32 credits, in which case the surplus can also be in the major.
For art history majors, the one required credit of studio art course work counts as within the major, but additional credits of studio art count as outside credits. Thus, an art history major graduating with 32 credits could take no more than three additional art history credits beyond the eight art history credits that are required for the major. But an art history major could take as many more studio credits as desired.
For art majors, the required four credits in art history count within the major, but additional credits in art history count outside the major.

## Advanced Placement Credit

Credit for an AP 5 will be given upon completion of an art history course in the department. For majors this credit will cover the requirement for ARTH 002.

## Transfer Credit

A maximum of two transfer credits will count toward the major, either from study abroad or other U.S. institutions. Students transferring from another institution should consult with the chair regarding their specific situation.

## Off-Campus Study

The Art Department strongly encourages those with an interest in art and its history to consider incorporating study abroad into their Swarthmore program either during a summer or a regular academic term. Important examples of art and architecture are found throughout the world, and the encounter with works still imbedded in their original context is vital to an understanding of their historical and contemporary significance. Past experience has shown, however, that art courses in most study abroad programs fall considerably below the academic standards of comparable courses at Swarthmore. Students who are interested in bettering their chances of gaining a full Swarthmore credit for a course taken abroad are strongly advised to meet with the Art History Coordinator or the Studio Art Coordinator before leaving the campus. Please note: the department does not approve transfer credits in art history unless students have already completed an art history course at Swarthmore.

## Art History

ARTH 001C. First-Year Seminar: Making Art History
Are works of art direct extensions, pure reflections, or unique expressions of an individual artist's genius, fragile by implication and susceptible to destruction from overanalysis? Or are works of art (as well as the definition just
offered) cultural artifacts produced under specific material and social conditions, and fully meaningful only under extended analysis? Must we choose? And are these questions themselves, and the talk they generate or suppress, yet another manifestation of the Western European and
American commodification of art, its production,
and its consumption? Such questions will underlie this introduction to the goals, methods, and history of art history. Focusing on works drawn from a variety of cultures and epochs, as well as on the art historical and critical attention those works have attracted, students will learn to describe, analyze, and interpret both images and their interpretations and to convey their own assessments in lucid writing and speaking.
Writing course.
1 credit.
Fall 2014. Cothren.

## ARTH 001D. First-Year Seminar:

## Architecture of Philadelphia

Virtually no other city in the Western hemisphere provides a richer cross-section of architecture over the past 350 years than Philadelphia. The city's material culture tells the story not just of this region but of our nation, from William Penn's utopian New World, to America’s 19th-century economic and artistic flowering, to Philadelphia's importance as a mid-20th-century crucible of city planning and post-modern design, to the city's role in shaping the early 21st century. In this discussion-based, first-year seminar we will explore the architecture and urbanism of this wondrous city through scholarly and popular literature as well as through regular walking tours of the city, especially its neighborhoods, parks, and museums.
Writing course.
1 credit.
Spring 2015. Morton.

## ARTH 001E. First-Year Seminar:

 Michelangelo and Renaissance CultureIn this discussion-based first-year seminar, we will study the sculptures, paintings, architecture, poetry, drawings, and biographies of the Renaissance artist Michelangelo. We will investigate these in light of Michelangelo's patrons, audiences, and the larger cultural, political, and religious contexts in which these works were produced. We will also consider the ways in which these works have been analyzed over the centuries and how the biographies and myths of Michelangelo have been created and understood. In doing so, we will develop a critical understanding of the methods and terminology of the discipline of art history itself. Course projects include convening as a mock group of museum trustees to discuss whether the museum should purchase a sculpture that has recently been attributed to Michelangelo.

Writing course
1 credit.
Not offered 2014-2015. Reilly.

## ARTH 001F. First-Year Seminar: Picasso

This course looks at the questions and arguments art historians have developed to address the multiple facets of Picasso's art, richly represented in the nearby Philadelphia Museum of Art and Barnes Foundation. Methods and perspectives explored include formal analysis, iconography, biography, social history, feminism, semiotics, and museum practice. Class sessions will focus on discussion of case studies and assignments will encourage critical skills and effective written and oral communication.

Writing course.
1 credit.
Not offered 2014-2015. Hungerford.

## ARTH 001L. First-Year Seminar: From Handscrolls to Comic Books: Pictorial

 Narratives in JapanThrough examination of select pictorial narratives produced in Japan between the 12th century and the present, this first-year seminar introduces students to the basics of art historical research and analysis. We will look at the ways in which handscrolls, folding screens, and (comic) books employ image and text in addressing subjects such as romances, miracles, battles, and fantasies, and consider the roles and functions performed by pictorial narratives in society.
Writing course.
1 credit.
Not offered 2014-2015. Sakomura.
ARTH 001M. First-Year Seminar:
Leonardo: Artist, Engineer, Architect, and Anatomist
Leonardo da Vinci was a great anatomist, engineer, architect and inventor whose drawings circulated around the courts of Europe. In this discussion-based course we will study the inventions, writings, paintings, drawings and biographies of this important Renaissance artist. We will consider the ways in which the works, biographies, and myths of Leonardo have been analyzed (and created) over the centuries. In doing so, we will develop a critical understanding of the methods and terminology of the discipline of art history itself.
Writing course.
1 credit.
Not offered 2014-2015. Reilly.
ARTH 001P. First-Year Seminar: Objects of Empire: Artworks in the Early Modern

## Atlantic World

For much of the early-modern period, the Spanish Viceroyalties anchored a system of maritime
exchange that connected the Atlantic world (Europe and Africa) with the profitable and desirable bounty of the Far East. At regular intervals, royal Spanish galleons and European merchants (including pirates) inundated port cities and metropolitan areas, such as Mexico City, with valuable commodities, artworks, and everyday objects en route from one corner of the empire to another. This course seeks to understand what this "stuff" can tell us about the people who made it and the world they lived in. Although grounded in the field of art history, this course capitalizes upon the recent "material turn" in the humanities that has led to a proliferation of object-based inquiries and asks students to consider material culture from a variety of disciplinary perspectives (including art history, history, and anthropology). Students will not only learn to think about the "objects of empire," but also to think with them, gaining a better understanding of important issues such the role of art in establishing colonial regimes, questions of hybridity and artistic influence, the origins of global exchange, and the politics earlymodern collecting practices.
1 credit.
Spring 2015. Burdette.

## ARTH 002. The Western Tradition

This course provides an introduction to Mediterranean and European art from prehistoric cave painting to the 18th century. We will consider a variety of media-from painting, sculpture, and architecture to ceramics, mosaic, metalwork, prints, and earthworks. The goal of this course is to provide a chronology of the major works in the Western tradition and to provide the vocabulary and methodologies necessary to analyze these works of art closely in light of the material, historical, religious, social, and cultural circumstances in which they were produced and received. We will give attention to the use and status of materials; the representation of social relations, gender, religion, and politics; the context in which works of art were used and displayed; and the critical response these works elicited. 1 credit. Fall 2014. Cothren.

## ARTH 005. Modern Art in Europe and the

 United StatesThis course surveys Western European and American art from the late 18th century to the 1960s. It introduces significant artists and art movements in their social and political contexts and also focuses attention on art historical approaches that have been developed to interpret this art, including socio-economic and feminist perspectives.
1 credit.
Not offered 2014-2015. Hungerford.

## ARTH 012. The Architecture of Frank Lloyd

 WrightFrank Lloyd Wright’s career straddled two centuries and changed the course of architecture. We will examine his buildings and writings, from the time of his association with Louis Sullivan to the design of the Guggenheim museum and consider Wright's work in relation to the diverse currents of international modernism. Special attention will also be given to his houses and his influence on modern American domestic life. 1 credit.
Fall 2014. Morton.

## ARTH 013. Greek Art

This exploration of ancient Greek art and architecture will consider issues such as mythology in daily ritual; the religious, social, and political functions of sculpture; the use of architecture as propaganda; and the invention of the ideal warrior, athlete, and maiden.
Writing course.
1 credit.
Not offered 2014-2015. Reilly.

## ARTH 014. Early Medieval Art and

 ArchitectureIn this introduction to European art and architecture from late antiquity to the 12th century, special attention will be given to the
"Romanization" of Christian art under Constantine, the Celtic Christian heritage of the British Isles and its culmination in the Book of Kells, Justinianic Constantinople and Ravenna, the Carolingian Renaissance, Romanesque sculpture as ecclesiastical propaganda, and the efflorescence of monastic art under the Cluniacs and Cistercians. 1 credit.
Not offered 2014-2015. Cothren.

## ARTH 016. Italian Renaissance Art

This course will provide a rich introduction to the art and architecture produced in Florence, Rome, Venice, Siena, Padua, Mantua, and other important cultural centers in Italy from the late 14th to the 16th century. In addition to learning about painting, sculpture, drawings, prints, and architecture, we will also study stage design, temporary festival decorations, banners and costumes. A full range of issues related to the production and reception of artworks will be addressed, including the representation of the individual, the state, and religion. We will also examine art and anatomy, art and gender, the critical responses these works elicited, and the theories of art developed by artists and non-artists alike.
1 credit.
Not offered 2014-2015. Reilly.

## ARTH 018. Digital Rome

Working in small groups, students will create digital reconstructions (primarily in SketchUp) of select Roman cities in Africa Proconsularis, and try to answer a deceptively simple question, what determines the urban fabric of these ancient cities? By using Roman Africa as a test case, this course will examine the 'individuality within regularity' of Roman cities. Temporally we will commence with the end of the Roman Republic and conclude with the Late Empire. Geographically, we will primarily limit our analysis to the province of Africa Proconsularis (modern day Tunisia and parts of Algeria and Libya) and look at famous cities such as Carthage and Lepcis Magna and little known cities such as Meninx (Jerba, Tunisia). 1 credit.

## Fall 2014. Morton.

## ARTH 019. Contemporary Art

This course takes a focused look at European and American art from 1945 to the present, a period during which most conventional meanings and methods of art were challenged or rejected. Beginning with the brushstrokes of abstract expressionism and continuing through to the bitmaps of today's digital art, we consider the changing status of artists, artworks, and institutions. Emphasis will be placed on critical understanding of the theoretical and historical foundations for these shifts.

## 1 credit.

Not offered 2014-2015. Hungerford.
ARTH 023. Art of the Ancient Americas This course examines the art and architecture of the ancient Americas, focusing primarily on the regions of Mesoamerica and the Andes. It covers roughly four thousand years of human creativity, beginning with the origins of complex civilization in the region and continuing into the sixteenth century and the arrival of Europeans. To better understand the cultural and social significance of the objects we study, we will look to a variety of disciplinary approaches including art history, archeology, anthropology, ethnography. We will examine how artworks from the ancient Americas reflected, supported, and actively shaped the worldview of the people who created and used them. In addition, the class will briefly examine the significance of pre-Columbian art in contemporary society, including the topics of cultural nationalism, looting, and the politics of collecting pre-Columbian art.
1 credit.
Fall 2014. Burdette.
ARTH 024. Colonial Latin American Art This course examines the art and architecture of the Spanish Viceroyalties of New Spain and Peru, covering roughly three hundred years of artistic production, beginning with the arrival of the

Spanish in 1519 and concluding with the Independence period in the early 19th century. The course surveys a diverse collection of art and architecture from multiple academic perspectives in order to gain an appreciation for the material culture of the colonial Americas and to better understand colonial society and culture. The course will also highlight the importance of colonial art in contemporary society, raising issues of theft, art collecting, and the continued use and veneration of colonial artworks.
The class is divided into three sections, moving chronologically from the conquest and colonization to the colonial baroque, before concluding with the neo-classical period and Latin American independence. In each section we will examine works from colonial Mexico and the Andean region, comparing and contrasting the artworks and cultural landscape of these two colonial centers. Within each section we will study a variety of artistic media, including painting, sculpture and architecture, as well as less- well known traditions such as featherwork and textile arts.

1 credit
Spring 2015. Burdette.

## ARTH 025. Colloquium: Native American

 ArtAn exploration of the arts of native peoples across the North American continent from the archaeological records of prehistory to the contemporary creations of painters and sculptors working within a global "art world." Attention will be given to the theoretical, political, and methodological challenges inherent in the study of these indigenous arts and their interactions with other cultures and cultural viewpoints, past and present. Discussions will focus on issues of identity and ritual, artists and their audiences, archaeology and recovery, colonization and tourism.
1 credit.
Not offered 2014-2015. Cothren.

## ARTH 032. Crafting Nature: The Arts of

 Japanese Tea CultureThis course explores the rich cultural practice of chanoyu, the "Japanese tea ceremony," which emerged around the preparation of powdered green tea. We will examine the ritual, aesthetic, and institutional history of this practice from the 12th century to the present and consider the various cultural forms-painting, calligraphy, ceramics, architecture, garden design, religious ritual, performance, food preparation, and flower arrangement-that were integrated into and developed through chanoyu. Discussions will include the place of Zen Buddhism in the history of chanoyu, the role of chanoyu in Japanese aesthetic discourse and art collecting practices, and the impact of chanoyu on contemporary
productions of architecture, lacquerware,
metalware, and ceramics. We will learn the formal
procedures of preparing tea (temae) and visit
Shofuso, the Japanese House and Garden in
Fairmount Park, Philadelphia.
Writing course.
Eligible for ASIA credit.
1 credit.
Spring 2015. Sakomura.

## ARTH 033. Famous Places and Sacred

 Sites: The Art of Landscape in East Asia This course surveys the major traditions of landscape art in East Asia. We will explore the ways in which places and spaces are transformed into famous places and sacred sites and consider the critical role played by visual representation in this process. Major topics include the relationship between landscape and power, cultural memory, literature, mythology, seasonality, travel, and literati culture. We will examine the functions of landscape art in various cultural, geographical, and temporal contexts of East Asia and consider the complex processes of cultural dissemination and adaptation by looking at the reception of Chinese landscape painting tradition in Korea and Japan. 1 credit.Not offered 2014-2015. Sakomura.

## ARTH 034. Colloquium: East Asian Calligraphy

What's in a script? This colloquium examines the major calligraphic traditions of China, Korea, and Japan from 1200 B.C.E. to the present. We will study the functions and contexts of calligraphic inscriptions among a rich range of material texts, such as animal bones, bronze vessels, stone stelae, mountain cliffs, and various paper-based formats. In addition to analyzing the development and circulation of calligraphic styles within East Asia and celebrated works of individual calligraphers, we will explore how calligraphy conveys meaning and how it has been used as a powerful tool for cultural and political commentary.
1 credit.
Not offered 2014-2015. Sakomura.

## ARTH 039. Contemporary Japanese Visual

 CultureThis course aims to familiarize students with the visual culture of contemporary Japan and its complex relationship to the traditional arts of Japan as well as to Western culture. Topics examined will include representations of gender, nature, tradition, history, nation, city and suburbia, tourism, food, commodity, and fashion. We will closely analyze and critique works in the print medium such as advertisements, graphic design, photography, magazines, and manga. We will also consider Japanese product and character designs that have achieved global recognition, such as MUJI and Hello Kitty.

1 credit.
Fall 2014. Sakomura.

## ARTH 045. Gothic

This course will examine the formation of "The Gothic" around 1140 and its development and codification in the Ile-de-France to the middle of the 13th century; monasteries, cathedrals, and chapels; neo-platonism and the new aesthetic; "court-style" and political ideology; structural technology and stylistic change; patronage and production; contextualizing liturgy and visualizing dogma.
1 credit.
Not offered 2014-2015. Cothren.

## ARTH 052. Renaissance Art in Europe

This course employs a thematic approach to considering the major artistic, architectural, and cultural achievements of the Renaissance and the early modern period in Europe (1450-1750). Turning away from traditional approaches to Renaissance art, which are often defined by chronological or geographical boundaries, we will concentrate on four issues central to the artistic culture of the period: the artist as individual genius, technologies of artistic production (oil painting, printmaking), courtly art and patronage, and the arts of exploration (maps, cross-cultural influence). In each of these four sections, we will explore artworks from multiple geographies, including northern and southern Europe, couching the major artists and artworks of the Italian and Northern Renaissance within conceptual frameworks that highlight their interconnected nature and their relationship with other people, places, and movements.
1 credit.
Fall 2014. Burdette.
ARTH 053. The Arts of Golden Age Spain The Spanish Golden Age, or "Siglo de Oro" (Golden Century), lasted roughly 150 years, from the discovery of the Americas in 1492 to the midseventeenth century. This period of political and cultural ascendance, which saw the Spanish empire blossom across the Atlantic and Asia, gave rise to many of Spain's greatest cultural achievements. This course examines the artworks and artists that made this period special, as well as the patrons and political realities underpinning the period's achievements. We will focus, in particular, on painters such as El Greco, Diego Velázquez, Francisco de Zurbarán, and Bartolomé Esteban Murillo, connecting their artistic production to artistic movements throughout Europe and to the broader trends of the baroque. We will also explore the remarkable corpus of polychrome sculpture produced by sculptors such as Juan Martínez Montañes during the period, examining their role in religious rituals and processions. Lastly, we will examine the major
architectural trends and monuments from the period, including the Escorial and several baroque cathedrals. This survey of painting, sculpture, and architecture from the period will help students understand the ideas and values underpinning this singular moment in artistic history, as well as the place of Spanish golden age art within a broader European and global context.
1 credit.
Spring 2015. Burdette.

## ARTH 065. Modern Architecture

This course traces the development of modern architecture and the built environment from the Industrial Revolution in Europe to the global present with an emphasis on the critical debates that informed its production, practice and reception. We will study architecture as a social process and formal practice through a variety of methodologies. Important themes include, technology and materials, form and function, the identity of the architect, public and private space, housing and domesticity, monuments and informality, colonization and globalization. Field visits will be an important element to the class.
1 credit.
Not offered 2014-2015.

## ARTH 072. History of Architecture:

## Prehistory-1250

This course will provide an intensive introduction to the history of architecture, and its chronological and cultural spans are immense. We commence $c a$. 10,000 B.C.E. and end around 1250 C.E. and examine select works of architecture from diverse cultures around the world. In this course architecture is seen as a cultural product that can only be understood in relation to the societal complexities within which the architecture was produced, used, and received. Certain themessuch as cultural interaction and exchange, transmission of architectural knowledge, architectural patronage, the conception of space, and the role of technology and materials-will be addressed throughout the course.
1 credit.
Fall 2014. Morton.

## ARTH 073. History of Architecture: 1250

 PresentThis course is designed to provide students with an intensive introduction to the history of architecture, and its chronological and cultural spans are immense. We commence ca. 1200 and end with the contemporary world; we address numerous cultures from medieval Cairo through Mughal India to the United States in the 21st century. In this course, architecture is seen as a cultural product, and one must understand the societal complexities in which the architecture was produced. Certain themes, such as: cultural
interaction and exchange, transmission of architectural knowledge, architectural patronage, the conception of space, and the role of technology and materials will be addressed throughout the course.
1 credit.
Spring 2015. Morton.

## ARTH 074. History of Photography

This course will address the history of photography, from its invention in 1826 to the present, primarily through discussion of readings about particular processes (beginning with paper and glass plate negatives), practitioners, and theoretical approaches. Central themes will include landscape, war, social documentary, and photography's interventions in the arts, from the Victorian era through surrealism and recent conceptualists.

## 1 credit.

Not offered 2014-2015. Hungerford.
ARTH 095. Cracking Visual Codes
How do we understand the visual? What ways of seeing do we engage in and what kinds of questions do we ask when analyzing paintings, buildings, sculptures, ceramics, photographs, or prints? How do we crack the visual codes specific to images, objects, and structures of a given time and place? This colloquium will explore various approaches to the interpretation of the visual arts through the critical reading of important texts of the discipline and writings that propose or challenge a variety of analytic strategies. Students will directly engage in the interpretive process by researching, writing, and presenting on a work of art or architecture in the Philadelphia area, an exercise that will assist the exploration of questions central to their own interest in the study of visual culture. Through this course students will acquire the skills for interpreting images we encounter every day-such as advertisements, logos, icons, and other forms of visual culture.
Writing course.
1 credit.
Spring 2015. Sakomura.
ARTH 096. Directed Reading
1 credit.
Staff.

## ARTH 180. Thesis

A 2-credit thesis normally carried out in the fall of the senior year. The topic must be submitted and approved by the instructor in charge before the end of the junior year.
2 credits.
Staff.

## Seminars

Unless otherwise noted, the prerequisite for all seminars is two courses in art history.

## ARTH 136. Word and Image in Japanese

 ArtThis seminar explores the dialogue between text and image as manifested in visual representations of courtly culture in Japan from the 10th to the 18th century. Through select works of courtly narrative and poetry, such as the 11th-century classic The Tale of Genji, we will examine the complex and nuanced interactions of text, image, calligraphy, object, function, patronage, production, and consumption as shaped by the materiality of a range of media including handscrolls, folding screens, poem sheets, illustrated and printed books, lacquerware, and fans.
2 credits.
Prerequisite: two courses in art history or permission of instructor.
Fall 2014. Sakomura.
ARTH 147. Visual Narrative in Medieval Art This seminar examines how and why tendentious stories are told in pictures during the European Middle Ages and the various ways art historians have sought to interpret their design and function. After introductory discussions on narratology, the class focuses on an intensive study of a few important and complex works of art that differ in date of production, geographic location, viewing context, artistic tradition, and medium. In past years, these have included the Bayeux Embroidery of ca. 1070, the stained-glass windows of the Parisian Sainte-Chapelle of ca. 1245, and Giotto's frescos in the Arena Chapel in Padua of 13031305.

2 credits.
Not offered 2014-2015. Cothren.

## ARTH 151. Renaissance Rome

From the 14th to the 17th century, Rome was transformed from a "dilapidated and deserted" medieval town to a center of spiritual and worldly power. This seminar will consider the defining role that images played in that transformation. In addition to studying the painting, sculpture and architecture of artists such as Fra Angelico, Bramante, Raphael, and Michelangelo, we will study the creation and use of objects such as banners, furniture, and temporary festival decorations. Topics will include papal reconstruction of the urban landscape; the rebirth of classical culture, art and the liturgy, private devotion and public ritual, and the construction of the artist as genius.
2 credits.
Not offered 2014-2015. Reilly.

## ARTH 164. Modernism in Paris and New

 YorkThis seminar focuses on "Modernism" in 19thand 20th-century art, addressing selected artists from Courbet and Manet through Degas, Gauguin, Cézanne, Picasso, Pollock, and Rothko. Artists and readings are also chosen to illuminate current scholarly approaches to "Modernism," including socio-economic, feminist, and post-colonialist perspectives.
2 credits.
Prerequisite: two courses in art history or permission of instructor.
Not offered 2014-2015. Hungerford.

## Studio Arts

## STUA 001. Foundation Drawing

This course is designed as an introduction to drawing as the basis for visual thinking and perception. The class will focus on concepts and practices surrounding the use of drawing as a visual language rather than as a preliminary or planning process. Whether students are interested in photography, painting, pottery, sculpture, installation or performance, the ability to design and compose visually is fundamental to their development. The course follows a sequence of studies that introduces students to basic drawing media and compositional elements while they also learn to see inventively.
This course is a prerequisite for all other courses in studio art except book arts unless waived by the instructor.
1 credit.
Each semester. Staff.
STUA 001B. First-Year Seminar: Drawing
This studio art experience is designed for first-year students who have demonstrated through a portfolio presentation their knowledge of the elements of design, composition, and visual thinking. This course is similar in content to the foundation drawing class STUA 001. However, it will be more in depth, with more emphasis on individually designed studio and research projects. Portfolios of actual or photographed work must be submitted for evaluation during orientation week. This portfolio should include, in addition to whatever medium you choose to present, several drawing examples demonstrating proficiency in drawing. Contact the department for details.
This course is a prerequisite for all other courses in studio art except Book Arts unless waived by the instructor.
1 credit.
Fall 2014. Meunier.

## STUA 005. Photography II - Color

This class is an introduction to the art and craft of color photography using the tools that are most
widely practiced by artists today. Students work toward a final project using either a film or digital camera, processing images in Photoshop and outputting them on a professional-grade ink-jet printer. Weekly critiques, photographer research projects, and at least one field trip to look at art make up the class. It is preferred, but not required, that students take STUA 006: Beginning
Photography first.
Prerequisite: STUA 001 or consent of instructor. 1 credit.
Spring 2015. Tarver.

## STUA 006. Photography I

This class introduces students to the traditional craft of silver wet dark-room photography. Though black-and-white images can be created digitally, enough visual and technical complexity remains in silver gelatin printing that many artists continue to work in this time-honored medium long after the "digital revolution." Students use film cameras, film, and light-sensitive paper to create a final body of work. Weekly critiques, photographer research projects, and at least one field trip to look at art make up the class.
Prerequisite: STUA 001 or consent of instructor.
1 credit.
Fall 2014. Tarver.

## STUA 007. Book Arts

Introduction to the art of the book. Included will be an investigation into typesetting and printing, binding, wood engraving, and alternative forms of book construction and design.
1 credit.
Spring 2015. Phelan.

## STUA 008. Painting I

Students will investigate the pictorial structure of oil painting and the complex nature of color. A thorough study of texture, spacial conventions, light, and atmosphere will be included.
Prerequisite: STUA 001 or consent of instructor. 1 credit.
Not offered 2014-2015
STUA 009. Sculpture II - Figure Modeling Working from the perceptual observation and study of the human body, we will explore the sculptural principles and practice of modeling in clay. The initial projects are centered on the study of the human figure in parts-the foot, the hand, and the individual features of the human face. We will then move on to a self-portrait, full figure studies, and a bas-relief. The teaching method includes slide lectures, demonstrations of techniques and individual guidance on studio projects.
Prerequisite: STUA 016 Sculpture 1
1 credit.
Fall 2014. Meunier.

STUA 010. Drawing II - The Figure
Work in various media directed toward a clearer perception of the human form. The class is centered on drawing from the model and within this context. The elements of gesture, line, structure, and light are isolated for the purpose of study.
Prerequisite: STUA 001 or consent of instructor.
1 credit.
Fall 2014. Exon.
STUA 011. Ceramics I
This introduction to ceramic process and aesthetics focuses on acquiring basic skills on the potter's wheel as well as an introduction to making and applying glazes both high and low temperature. Students will also learn to operate an electric kiln. Through image presentations and exposure to actual objects, students will learn to discuss and evaluate the aesthetic attributes of the handmade object.
Prerequsite STUA 001 or consent of instructor. 1 credit.
Not offered 2014-2015

## STUA 012. Painting II - Figure

## Composition

In this advanced course in painting and drawing the human form, emphasis will be given to the methods, thematic concepts, conventions, and techniques associated with multiple figure design and composition.
Prerequisite: STUA 008 and/or STUA 010.
1 credit.
Not offered 2014-2015. Grider.

## STUA 013. Sculpture II - Installation

This course explores installation art across all media. Students may incorporate a variety of sculptural materials and processes, video, light, sound, text, photography, and painting in their works to expand the physical boundaries beyond the discrete object. The pieces created will be sitespecific, the building and grounds of the campus will be your canvas. The teaching method includes slide lectures, demonstrations of techniques and individual guidance on studio projects.
Prerequisite: STUA 016 Sculpture
1 credit.
Not offered 2014-2015. Meunier

## STUA 014. Painting I - The Landscape

This course explores the vast array of interpretive approaches, and practical methods available to the artist interested in landscape painting. Each student will be introduced to methods and techniques that will be used in the field while painting directly from nature. Topics include atmospheric perspective, linear perspective, viewpoint, compositional structuring through shape and rhythm, and a thorough study of light
through changing effects of color and tonality. Excursions into the urban, suburban, and rural landscape of southeastern Pennsylvania will be scheduled weekly. Oil paints will be the central medium of the class.
Prerequisite: STUA 001 or consent of instructor. 1 credit.

Fall 2014. Exon.

## STUA 015. Ceramics II - The Potter's

 WheelThis class focuses on a series of projects for the wheel to assist in developing proficiency, technique and ideas for both functional and sculptural form. Critiques and in class discussion are an important component of this experience. Students will be exposed to traditional and nontraditional solutions to the wheel thrown container through slide lectures, videos and guest artists. For beginners and experienced students.
Prerequisite: STUA 001 or consent of instructor. 1 credit.

Fall 2014. Carpenter.

## STUA 016. Sculpture I

This course is an introduction to the basic elements, techniques, and history of sculpture. We cover both additive and reductive processes. Materials and techniques will include clay modeling and construction, plaster modeling and casting, and cardboard and wood construction. There is an emphasis on the development of form and structure particular to each process, in regards to the concepts of space, form, weight, mass, and design in sculpture. The teaching method includes slide lectures, demonstrations of techniques, and individual guidance on studio projects.
Prerequisite: STUA 001 Foundation Drawing, or, STUA 001B FYS: Drawing
1 Credit
Spring 2015. Staff

## STUA 017. Ceramics II - The Container as

 ArchitectureThis class focuses on designing and constructing container-based forms using clay as the primary medium. Using hand-building processes including slab, coil and cast forms students will develop architecturally imagined forms. Thematically conceived projects will allow students to explore problems in three-dimensional design using a broad range of architectural references. The experience will be complimented with slide presentations, demonstrations and guest artists.
Prerequisite: STUA 001 or consent of instructor. 1 credit.
Spring 2015. Carpenter.

## STUA 018. Printmaking I

This class will focus on intaglio and relief processes, and provide a general overview of tools,
techniques, terminology, paper and plate preparation, and safety. Using historical and contemporary examples, students will be introduced to the differing ways printmaking can be employed in the creation of contemporary art. The techniques and functions of seriality and the multiple, including how to properly handle paper and edition a print will also be introduced. The final project of the semester will include an exchange edition. Class time will be divided between work time, demonstrations, digital presentations, and field trips.
Prerequisite: STUA 001 or consent of instructor. 1 credit.
Not offered 2014-2015. Staff.
STUA 020. Advanced Studies
020A. Ceramics
020B. Drawing
020C. Painting
020D. Photography
020E. Sculpture
020F. Printmaking
020G. Architectural Drawing
020J. Book Arts
These courses are designed to usher the intermediate and advanced student into a more independent, intensive study in one or more of the fields listed earlier. A discussion of formal issues generated at previous levels will continue, with greater critical analysis brought to bear on stylistic and thematic direction. All students are expected to attend, throughout the semester, a given class in their chosen medium and must make sure at the time of registration that the two class sessions will fit into their schedules. In addition to class time, students will meet with the professor for individual conferences and critiques.
This series of courses also serves as the Junior Workshop, a colloquium for junior studio art majors in the spring semester. Students will produce work within the classes offered as Advanced Studies. Regularly scheduled group and individual critiques with other junior majors and a faculty coordinator will occur throughout the semester, culminating in a group exhibition.
Note: Although this course is for full credit, a student may petition the studio faculty for a $0.5-$ credit semester.
Prerequisites: STUA 001 and at least one previous course in the chosen medium.
1 credit.
Each semester. Staff.

## STUA 021. Drawing II - Architecture

Turning Corners
The Beaux-Arts practice of "analytique"-a drawn, or sketched, tour of a building's unifying visual elements, proportional relationships, and structural details-will be the primary mode of
inquiry in this course. Taking advantage of the great number of the fine examples of historical and contemporary architecture in this region, the class will take a series of field trips to a select group of local monuments to gather visual material. We will continue and build on the student's competency and understanding of linear perspective and free hand sketching, established in the prerequisite, while introducing new methods in site measuring and isometric drawing. Extensive use of watercolor and gouache will also be used, although previous experience in these techniques is not required, in order to articulate the decorative and light specific qualities of each building, and its surroundings.
Prerequisite: STUA 001 or consent from instructor.
1 credit.
Spring 2015. Exon.

## STUA 022. Painting II - Color

Color functions in many ways in painting. The interaction of color may be used to create the illusion of light and space or to establish an expressive tone. Color can also operate on a symbolic level or be used to create a compositional structure. Using various drawing and painting media students will explore the ways which color can be manipulated. Assigned readings, critiques and group discussions will be included.
Prerequisite: STUA 001 or consent of instructor. 1 credit.

Spring 2015. Grider.

## STUA 025. Advanced Studies II

Continuation of STUA 020 on a more advanced level. This series of courses also serves as the Junior Workshop, a colloquium for junior studio art majors in the spring semester. Students will produce work within the classes offered as
Advanced Studies. Regularly scheduled group and individual critiques with other junior majors and a faculty coordinator will occur throughout the semester, culminating in a group exhibition.
025A. Ceramics
025B. Drawing
025C. Painting
025D. Photography
025E. Sculpture
025F. Printmaking
025G. Architectural Drawing
025J. Book Arts
Prerequisite: STUA 020.
1 credit.
Each semester. Staff.

## STUA 029. Junior Workshop

During the spring semester of the junior year and in preparation for the Senior Workshop I and II,
studio art majors are required to take Junior Workshop as their advanced study. Non-majoring advanced study students are also class participants. Working with a faculty coordinator, students will develop works with an emphasis on improving technically, conceptually and productively. Guest artists, studio visits and critiques will be integral to the workshop experience. Finally, works produced during the workshop will be exhibited in a group exhibition at the end of the semester. Because this required workshop takes place in the spring, it is recommended that off-campus study occur during the fall semester.
1 credit.
Spring 2015. Carpenter.

## STUA 030. Senior Workshop I

This course is designed to strengthen critical, theoretical, and practical skills on an advanced level. Critiques by the resident faculty members and visiting artists as well as group critiques with all members of the workshop will guide and assess the development of the students' individual directed practice in a chosen field. Assigned readings and scheduled discussions will initiate the writing of the thesis for the senior exhibition.
This course is required of senior art majors.
1 credit.
Fall 2014. Grider.

## STUA 040. Senior Workshop II

This course is designed to further strengthen critical, theoretical, and practical skills on a more advanced level. During the spring semester of the senior art major, students will write their senior artist statement and mount an exhibition in the List Gallery of the Eugene M. and Theresa Lang Performing Arts Center. The artist statement is a discussion of the development of the work to be exhibited. The exhibition represents the comprehensive examination for the studio art major. Gallery exhibitions are reserved for studio art majors who have passed the senior workshop and fulfilled all requirements, including the writing of the senior art major statement.
1 credit.
Spring 2015. Grider.

| Chair: | WILLIAM GARDNER (Modern Languages and Literatures, Japanese) Anna Everetts (Administrative Assistant) |
| :---: | :---: |
| Faculty: | Farid Azfar (History) |
|  | Alan Berkowitz (Modern Languages and Literatures, Chinese) |
|  | Pallabi Chakravorty (Music and Dance) |
|  | BuYun Chen (History) |
|  | Ju-hui Chiu (Lecturer, Modern Languages and Literatures, Chinese) |
|  | K. David Harrison (Linguistics) |
|  | Steven P. Hopkins (Religion) |
|  | Yoshiko Jo (Lecturer, Modern Languages and Literatures, Japanese) |
|  | Wol A Kang (Lecturer, Modern Languages and Literatures, Chinese) |
|  | Haili Kong (Modern Languages and Literatures, Chinese) |
|  | Gerald Levinson (Music) |
|  | Nan Ma (Visiting Instructor, Modern Languages and Literatures, Chinese) |
|  | Bakirathi Mani (English Literature) |
|  | Tomoko Sakomura (Art History) |
|  | Christopher Schad (Visiting Lecturer, Modern Languages and Literatures, Chinese) |
|  | Kirsten Spiedel (Lecturer, Modern Languages and Literatures, Chinese) |
|  | Atsuko Suda (Lecturer, Modern Languages and Literatures, Japanese) ${ }^{3}$ |
|  | Tyrene White (Political Science) ${ }^{3}$ |
|  | Thomas Whitman (Music) |

${ }^{3}$ Absent on leave, 2014-2015.

Asian studies is an interdisciplinary program that introduces students to the history, cultures, and societies of Asia-including principally China, Japan, and India. Courses are offered in the departments of art, economics, English literature, history, linguistics, modern languages and literatures (Chinese and Japanese), music and dance, political science, religion, sociology and anthropology, and theater.
As the largest interdisciplinary program at the College, Asian studies plays a significant role in many departments in the humanities and social sciences. Some students choose a major or a minor in Asian studies; many others study about Asia while majoring in political science, economics, history, religion, anthropology, languages and literatures, or other fields.
Studying Asia and gaining experience in the Asian world are important to understanding the global flows of peoples, cultures, technology, and business in today's world. Many students explore traditional art, literature, or religion, or perhaps politics (World War II or the Cold War). Others are attracted by broad spiritual practices (Zen meditation, for example), or economic issues (rural poverty or global business). Today-as the Asian American community expands and diversifies, and as Asian cultural and technological influences have become part of American lifelearning about Asia is not so exclusively about the "other," but often about "self." To study Asia, then, is to trace the diverse strands of Asian cultures that have originated in different regional, national, and local traditions, but which have now become increasingly intertwined with contemporary global life.

## The Academic Program

The Asian Studies Program offers a major and a minor in course and honors. Students who declare a major in Asian studies construct individualized programs of study, with a focus on a comparative theme or on a particular country or region. Some examples of comparative themes are classical traditions in Asian literature and art, Buddhist studies, Asian nationalisms and the emergence of nation-states, and the political economy of Asian development. In all cases, the core of the major involves exposure to multiple regions and multiple disciplines.
Students interested in Asian studies are urged to consult the Asian studies website for up-to-date information on courses and campus events. Students should meet with the program chair in advance of preparing a Sophomore Plan. Advance planning is especially important for students contemplating the Honors Program and those planning to study abroad.

## Course Major

Asian studies invites students to make connections among courses that differ widely in content and method. When considering applicants to the major, the Asian Studies Committee looks for evidence of intellectual flexibility and independence. Students must have completed at least two Asia-related courses in different departments with grades of B or better to be accepted into the major.
The major in Asian studies consists of a minimum of ten (10) credits, with requirements and distribution as follows:

1. Geographic breadth. Coursework must include more than one of the regions of Asia (East, South, Northeast, and Southeast). This requirement can be fulfilled by taking at least two courses that are pan-Asian or comparative in scope or by taking at least one course on a country that is not the principal focus of a student's program.
2. Disciplinary breadth. Courses must be taken in at least three different departments.
3. Core courses. At least one of the following courses must be taken:

ARTH 032. Crafting Nature; The Arts of Japanese Tea Culture
ARTH 033. Famous Places and Sacred Sites: The Art of Landscapes in East Asia
CHIN 016. Substance, Shadow, and Spirit in Chinese Literature and Culture
CHIN 023. Modern Chinese Literature HIST 009A. Chinese Civilization
HIST 009B. Modern China
JPNS 017. The World of Japanese Drama
JPNS 021. Modern Japanese Literature
JPNS 051. Japanese Poetry and Poetics
POLS 056. Patterns of Asian Development
POLS 058. Contemporary Chinese Politics
RELG 008. Patterns of Asian Religions RELG 009. The Buddhist Tradition
RELG 012 or 013 . History, Religion, and Culture of India I or II
4. Intermediate and advanced work. A
minimum of 5 credits must be completed at the intermediate or advanced level in at least two departments.
5. Asian language study. Asian language study is not required but is strongly recommended. Up to four credits of Asian-language study may be applied toward the major. For languages offered at Swarthmore (Chinese and Japanese), courses above the first-year level may count toward the major. For Asian languages not offered at Swarthmore, courses at the entry level may count toward the major if at least the equivalent of 1.5 credits is earned in an approved program.

## Thesis / Culminating Exercise

Students in the Asian studies course major have a choice of culminating exercises.
Thesis option. A 1- or 2-credit thesis, followed by an oral examination. A thesis must be supervised by a member of the Asian studies faculty. Students normally enroll for the thesis (ASIA 096) in the fall semester of the senior year.
Qualifying papers option. Students revise and expand two papers they have written for Asian studies courses in consultation with Asian studies faculty members.
Honors seminar option. Students take a 2-credit honors seminar in an Asian studies topic in either
their junior or senior year. (Note: A two-course combination or a course plus attachment will not satisfy this requirement.)

## Grade-point average requirement

A student must have at least a C average in the course major.

## Course Minor

Students will be admitted to the minor after having completed at least two Asian studies courses in different departments with grades of $B$ or better. The Asian studies minor in course consists of five courses, distributed as follows:

1. Geographic breadth. Coursework must cover more than one region of Asia. This can be accomplished by taking at least two courses that are pan-Asian or comparative in scope or by taking at least one full course on a country that is not the principal focus of a student's program.
2. Disciplinary breadth. Asia-related courses must be taken in at least two departments outside of the disciplinary major. Only one course may overlap the Asian studies minor and the disciplinary major.
3. Core courses. Students are required to include at least one course from the list of core courses (see above).
4. Intermediate or advanced work. At least 2 credits of work must be completed at the intermediate or advanced level.
5. Asian language study. Asian-language study is not required but is strongly recommended. Up to two credits in Asian language study may be applied toward the course minor. For languages offered at Swarthmore (Chinese and Japanese), courses above the first-year level may count toward the minor. For Asian languages not offered at Swarthmore, courses at the entry level may count toward the minor if at least the equivalent of 1.5 credits is earned in an approved program.
6. Grade-point average requirement. A student must have at least a C average in the minor.

## Honors Major

To be admitted to the honors major, students should have completed at least two Asian studies courses in different departments with grades of B+ or better.
The honors major in Asian studies consists of a minimum of ten (10) credits (including four honors preparations). The four preparations in an Honors Program must be drawn from at least two different disciplines.

1. Geographic and disciplinary breadth
requirements. These are the same as those for the course major (see above).
2. Core courses. Students are required to include at least one course from the list of core courses (see above).
3. Asian language study. Asian-language study is not required but is strongly recommended. Up to two credits in Asian language study may be applied toward the course minor. For languages offered at Swarthmore (Chinese and Japanese), courses above the first-year level may count toward the minor. For Asian languages not offered at Swarthmore, courses at the entry level may count toward the minor if at least the equivalent of 1.5 credits is earned in an approved program.
4. Asian studies as an interdisciplinary major. All four fields for external examination must be Asian studies subjects. One of the fields may also count toward an honors minor in a department The four preparations must be drawn from at least two different disciplines.
5. Grade-point average requirement. A student must earn at least a B+ in all offerings applied to the honors major.

## Honors Minor

To be admitted to the honors minor, students should have completed at least two Asian studies courses in different departments with a grade of B+ or above.
An honors minor in Asian studies consists of a minimum of 5 credits, distributed as follows:

1. Geographic breadth. There are two tracks within the minor:
a. Comparative Asian cultures: The selection of courses and the honors preparation should offer a comparative perspective on the traditional or modern cultures of Asia. Individual programs should be worked out in close consultation with the Asian studies coordinator. (Language study does not count toward this track.)
b. Focus on a single country or region: All courses in the program should focus on the same region or country. One or 2 credits of language study may be included.
2. Disciplinary breadth. Asia-related courses must be taken in at least two departments outside of the disciplinary honors major. Only one course may overlap the honors minor and the disciplinary honors major.

## 3. Core courses in the cultural traditions of

Asia. Normally at least one of the five courses should be a core course.
4. Asian language study. Asian language study is not required, but courses in Asian languages may count toward the honors minor. Up to 2 credits of Asian language study may be applied to the honors minor. For languages offered at Swarthmore (Chinese and Japanese), courses above the secondyear level count toward the minor. For Asian languages not offered at Swarthmore, courses at the entry level may be counted if the equivalent of 1.5 credits is earned in an approved program.
5. Honors preparation. One preparation, normally a two-credit seminar, will be submitted for external examination.
6. Senior Honors Seminar for minors. The student will fulfill the requirements set for honors minors by the department offering the honors preparation.
7. Grade-point average requirement. A student must have at least a B+ in all courses applied to the honors minor.

## Language Study

Swarthmore currently offers Chinese and Japanese language courses; other Asian languages may be studied at the University of Pennsylvania during the regular academic year, in summer-language programs, or abroad. For languages offered at Swarthmore, courses above the first-year level count toward the major. For Asian languages not offered at Swarthmore, courses at the entry level may be approved if at least the equivalent of 1.5 credits is successfully completed in a program approved by the Asian Studies Committee.

## Fellowship and Grant Opportunities for Students

The Alice L. Crossley Prize in Asian Studies is awarded annually to the student or students who submit the best essay(s) on any topic in Asian or Asian American Studies.
The Genevieve Ching-wen Lee '96 Memorial Fund supports a lecture each year in Asian American studies. This fund also supports an annual competition for summer research support for projects related to Asian studies or Asian American studies.
The Penelope Mason '57 Memorial Fund for Asian Studies is available to support Asian studies related projects proposed by students, faculty members, or both.

## Off-Campus Study

Students with majors in Asian studies are strongly encouraged to undertake a period of study in Asia. The Asian studies faculty can recommend academically rigorous programs in several Asian countries. Study abroad is the ideal arena for intensive language study. Courses taken abroad may be applied toward the major, subject to the approval of the Asian studies coordinator. However, at least half of the credits in a student's Asian studies major or minor should be earned at Swarthmore.

## Life After Swarthmore

Students with a background in Asian studies have pursued a number of paths after graduation. Some have gone abroad to continue their studies, do research, or work in humanitarian or social service
organizations. Others have gone directly to graduate school. Many eventually become teachers or professors. Others work in the arts, journalism, international law, business, finance, in the diplomatic corps, or in non-governmental organizations. Other Asian studies graduates pursue careers not directly related to Asia, in medicine or law, for example. All consider Asian studies to have been an important part of their liberal arts education.

## Courses

(See descriptions in individual departments to determine offerings for each semester.)

## Art (Art History)

ARTH 001L. From Handscrolls to Comic Books:
Pictorial Narratives in Japan (W)
ARTH 003. Asian Art
ARTH 032. Crafting Nature: The Arts of Japanese Tea Culture (W)
ARTH 033. Famous Places and Sacred Sites: The Art of Landscape in East Asia
ARTH 034. East Asian Calligraphy
ARTH 035. Pictured Environments: Japanese Landscapes and Cityscapes
ARTH 039. Contemporary Japanese Visual Culture
ARTH 136. Word and Image in Japanese Art

## Asian Studies

ASIA 091CH. Chinese Literature and Culture in Translation: Dancing Across

## Borders

1 credit.
Not offered 2014-15. Ma.
ASIA 093. Directed Reading
1 credit.
Staff.
ASIA 096. Thesis
Writing course.
1 credit.
Staff.
ASIA 180. Honors Thesis
Writing course.
2 credits.
Staff.
Chinese
CHIN 003B. Second-Year Mandarin Chinese CHIN 004B. Second-Year Mandarin Chinese
CHIN 007/JPNS 007. Chinese/Japanese
Calligraphy
CHIN 008/LITR 008CH. Reading Modern China
Through Literary and Cinematic Text

CHIN 009. Heaven, Earth, and Man: Ways of Thought in Traditional Chinese Culture [FYS] CHIN 011. Third-Year Mandarin Chinese CHIN 011A. Third-Year Mandarin Chinese Conversation
CHIN 012. Advanced Mandarin Chinese
CHIN 012A. Advanced Mandarin Chinese Conversation
CHIN 015. Form and Space in Chinese Architecture and Cities
CHIN 016/LITR 016CH. Substance, Shadow, and Spirit in Chinese Literature and Culture CHIN 017/LITR 017CH. Legacy of Chinese Narrative Literature: The Story in Dynastic China CHIN 018/LITR 018CH. The Classical Tradition in Chinese Literature
CHIN 019. First-Year Seminar: Singular Lives and Cultural Paradigms in Early and Imperial China
CHIN 020. Readings in Modern Chinese
CHIN 021. Topics in Modern Chinese
CHIN 023/LITR 023CH. Modern Chinese
Literature
CHIN 025/LITR 025CH. Contemporary Chinese Fiction: Mirror of Social Change
CHIN 027/LITR 027CH. The Story in Dynastic China
CHIN 033/LING 033. Introduction to Classical Chinese
CHIN 035. Readings in Classical Chinese
CHIN 055/FMST 055CH. Contemporary Chinese Cinema
CHIN 056/LITR 056CH. History of Chinese Cinema (1905-1995)
CHIN 063/LITR 063CH. Comparative
Perspectives: China in the Ancient World
CHIN 066/LITR 066CH. Chinese Poetry
CHIN 069/LITR 069CH. Taste and Aesthetics in
Chinese Cultural Traditions
CHIN 071/LITR 071CH. Invaded Ideology and Translated Modernity
CHIN 078/LITR 078CH. In Search of National Identity: Architecture and Urban Planning in China
CHIN 081/LITR 081CH. Transcending the Mundane: Taoism in Chinese Literature and Culture
CHIN 087. Fresh Water Resources: Polices and Issues, China and the U.S.
CHIN 088/POLS 088. Chinese Governance and Environmental Issues in China
CHIN 091/LITR 091CH. Special Topics in Chinese Literature in Translation
CHIN 092. Special Topics in Chinese Literature and Culture in Chinese
CHIN 103. Lu Xun and His Legacy in 20thCentury Chinese Literature

CHIN 104. Seminar in Chinese Poetry
CHIN 105. Fiction in Traditional China: People and Places, Journeys, and Romances
CHIN 108. Remaking Cinematic China: Zhang
Yimou, Wong Kar-wai, and Ang Lee
CHIN 109. Daoism
CHIN 110. Shanghai and Beijing: Tales of Two Cities

## Dance

DANC 025A/SOAN 020J. Dance and Diaspora
DANC 038. Performing Ecstasy Dancing the Sacred
DANC 046. Dance Technique: Kathak
DANC 049. Performance: Kathak
DANC 049. Performance: Taiko
DANC 079. Dancing Desire in Bollywood Films

## Economics

ECON 051. The International Economy*
ECON 081. Economic Development*
ECON 151. International Economics+
ECON 181. Economic Development +

## English Literature

ENGL 065. Asian American Literature
ENGL 075. South Asians in America: Literature, Culture, Politics
ENGL 077. South Asians of Asian America
Film and Media Studies
FMST 033. Asian/American Media
FMST 055. Contemporary Chinese Cinema
FMST 057. Japanese Film and Animation

## History

HIST 001D. China and the World
HIST 001G. The Golden Age of Portability: The Silk Road
HIST 009A. Chinese Civilization
HIST 009B. Modern China
HIST 060. East India Company, 1600-1857
HIST 075. Thinking Hands: Work and Craft
HIST 076. Women’s Work
HIST 077. Fashion in East Asia
HIST 078. China, Capitalism and Critics
HIST 145. Chinese Feminism
Japanese
JPNS 003. Second-Year Japanese
JPNS 004. Second-Year Japanese
JPNS 007/CHIN 007. Chinese/Japanese
Calligraphy
JPNS 012. Third-Year Japanese
JPNS 012A. Japanese Conversation
JPNS 013. Third-Year Japanese
JPNS 013A. Readings in Japanese

JPNS 017/LITR 017J. The World of Japanese Drama
JPNS 021/LITR 021J. Modern Japanese Literature
JPNS 024/FMST 057. Japanese Film and
Animation
JPNS 035. Narration of Disaster and Generation in Japan
JPNS 041/LITR 041J. Fantastic Spaces in Modern Japanese Literature
JPNS 051/LITR 051J. Japanese Poetry and Poetics JPNS 061/LITR 061FJ. Manga, Bande Dessinée and the Graphic Novel: A Transnational Study of Graphic Fiction*
JPNS 074/LITR 074J. Japanese Popular Culture and Contemporary Media
JPNS 083/LITR 083J. War and Postwar in Japanese Culture

Music
MUSI 005. Patterns of Asian Dance and Music MUSI 030. The Music of Asia
MUSI 049A. Performance: Balinese Gamelan

## Linguistics

LING 033/CHIN 033. Introduction to Classical Chinese
LING 064. Structure of Tuvan
Political Science
POLS 046. Chinese Foreign Policy
POLS 055. China and the World
POLS 056. Patterns of Asian Development
POLS 058. Contemporary Chinese Politics
POLS 064. American-East Asian Relations*
POLS 065. Chinese Foreign Policy
POLS 073. Comparative Politics: Advanced Topics in Chinese Politics
POLS 088/CHIN 088. Chinese Governance and Environmental Issues in China
POLS 108. Comparative Politics: East Asia

## Religion

RELG 008. Patterns of Asian Religions
RELG 009. The Buddhist Traditions of Asia
RELG 012. The History, Religion and Culture of India I
RELG 012B. Hindu Traditions of India: Power, Love and Knowledge
RELG 013. The History, Religion, and Culture of India II
RELG 030. The Power of Images: Icons and Iconoclasts*
RELG 031. Religion and Literature: From the Song of Songs to the Hindu Saints*
RELG 108. Poets, Saints, and Storytellers:
Religious Literatures of South Asia
RELG 114. Love and Religion*

## Asian Studies

## Theater

THEA 017/JPNS 017/LITR 017J. The World of
Japanese Drama

* Cognate course. Counts toward Asian studies if all papers and projects are focused on Asian topics. No more than two may be applied to the course or honors major. No more than 1 credit may be applied to the honors minor.
+ Cognate seminar. No more than 1 credit may be applied toward the honors major. It does not count toward an honors minor.

SARA HIEBERT BURCH, Professor
JOHN B. JENKINS, Professor ${ }^{2}$
RACHEL A. MERZ, Professor ${ }^{3}$
KATHLEEN K. SIWICKI, Professor
ELIZABETH A. VALLEN, Professor ${ }^{3}$
AMY CHENG VOLLMER, Professor and Chair
NICHOLAS KAPLINSKY, Associate Professor
JOSE LUIS MACHADO, Associate Professor
ALEXANDER BAUGH, Assistant Professor
BRAD DAVIDSON, Assistant Professor
VINCENT FORMICA, Assistant Professor
ELIZABETH NICHOLS, Assistant Professor ${ }^{3}$
JASON DOWNS, Visiting Assistant Professor
LORI SCHOTTENFELD-ROAMES, Visiting Assistant Professor
CHRISTOPHER VECSEY, Visiting Assistant Professor
STACEY MILLER, Laboratory Instructor
LAUREL ECKE, Laboratory Instructor
WILLIAM GRESH JR., Laboratory Instructor/Greenhouse Manager
PHILIP KUDISH, Academic Coordinator/Laboratory Instructor/Science Associate Coordinator
JOCELYNE MATTEI-NOVERAL, Laboratory Instructor
DIANE FRITZ, Administrative Coordinator
${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

At all levels of the biology curriculum, students are engaged in learning about the functions and evolution of diverse biological systems as well as the methods by which biologists study nature. There is much flexibility in the curriculum, allowing students to craft a path through the biology major that best suits their own interests. While fulfilling the requirements for the major, students are able to build a broad biological background by taking courses focused on different levels of biological organization, while also being able to concentrate on specialized areas of particular passion if they choose.
Our goals for biology majors
A basic tenet of the department is that the best way to learn about biology is to do biology. Therefore, almost every course has weekly laboratories or field trips, where students learn to become biologists by making original observations, asking questions about life processes, solving problems and designing and testing hypotheses by performing experiments. Communication skills are emphasized in all biology courses, as students read and evaluate research articles in scientific journals, write laboratory reports according to the standards of professional scientific writing, participate in frequent opportunities for oral presentations and critical discussion, and work in research teams.
The curriculum prepares students to pursue careers in research or to apply their biology interests and knowledge to careers as diverse as medicine, governmental policy planning, science education, public health, and writing children's books. A number of departmental alumni have also chosen careers outside of science, such as law and finance, where they report that the organizational,
critical thinking, and communication skills that they learned as a biology major have been crucial for their success.

## The Academic Program

In addition to first-year seminars, the department offers four different types of courses. Students are introduced to the study of biology at Swarthmore by taking BIOL 001, Cellular and Molecular Biology, and BIOL 002, Organismal and Population Biology. Either course may be taken first. Courses numbered 003-009 do not have associated laboratories; usually BIOL 001 and BIOL 002 are prerequisites. Diverse intermediatelevel courses, some offered in alternate years, allow students to choose coursework in areas of particular interest. These courses are numbered 010-039 and generally have BIOL 001 and BIOL 002 (or AP credit) as prerequisites. Some of these courses also require prior coursework in the Chemistry Department. Finally, two-credit seminars (with three-digit course numbers) have an intermediate-level course as a prerequisite and are usually taken by students in their junior or senior years.

## Majors and minors

The Biology Department offers a course major, course minor, honors major and honors minor. In addition, special majors in biochemistry and neuroscience are regularly offered in cooperation with the Chemistry and Biochemistry and Psychology departments, respectively. A student may choose an interdisciplinary minor in environmental studies, which includes courses in the Biology Department. In addition, the
department has also supported special majors as described below.

## Sample paths through the discipline

As pointed out in the introduction, there are many paths to a biology major. Following are some ideas to keep in mind as you plan your schedule.
Getting started as a biology major: Many majors take BIOL 001 and/or BIOL 002 during their first year. These two courses may be taken in either order and it is not uncommon for prospective majors to take BIOL 002 during the spring semester of their first year, and BIOL 001 during the fall semester of their second year. Students who realize their interest in biology later have also taken both courses during their sophomore year and successfully completed the major in eight semesters. We generally encourage all students to take at least one of the introductory courses, even if they have AP credit. BIOL 001 is always offered in the fall semester, and BIOL 002 always in the spring semester.
We encourage majors to fulfill the mathematics and chemistry requirements for the major during their first two years. In particular, some intermediate level courses require CHEM 010 (or CHEM 003 and 004) and CHEM 022. Completion of those chemistry courses gives more flexibility in biology course choice. However, we are willing to work with students to craft the best path for each individual.

## Continuing as a biology major: Because most

 intermediate level courses require both BIOL 001 and BIOL 002 (or AP credit), taking both courses before continuing on in the field usually serves students best. For planning purposes, most Group III intermediate-level courses are taught in the fall semester, and most Group I intermediate-level courses are taught in the spring semester. Some Group II courses are taught in spring and others in fall.The two-credit seminar course(s) you are most interested in taking may influence your other course choices. In addition to your own interests, prerequisites for seminars (which may consist of a specific intermediate-level course), faculty leave schedules, and study abroad considerations may constrain your course choice and schedule.
Some faculty strongly encourage students interested in doing research with them to take at least one course with them before working on a research project. It is important to talk to specific faculty members you are interested in working with to understand their specific requirements for work in their laboratory.
Completion of the biology major: Course majors must pass the comprehensive exam (BIOL 097 Themes in Biology) during the fall semester of the senior year. Honors majors are required to enroll in at least one credit of BIOL 180 (often but not always in fall semester of the senior year), and in

Senior Honors Study (BIOL 199), which is taken in the spring semester of the senior year.

## Course Major

## Acceptance criteria

a. Three courses (or advanced placement credit and two courses) in biology. If the student does not have AP or transfer credit, both BIOL 001 and BIOL 002 are required.
b. One semester of Organic Chemistry (CHEM 022). The prerequisite for CHEM 022 may consist of CHEM 010, CHEM 003 plus CHEM 004, or placement approved by the Chemistry and Biochemistry Department.
c. Swarthmore College credit for two courses in mathematics or statistics (not STAT 001 or MATH 003). Alternatively, students may complete calculus II (MATH 025). The Biology Department strongly recommends a course in statistics for majors.
d. Applicants must have an average grade of C (2.00) or better in BIOL 001 and BIOL 002 (or if AP credit is given, in the first two biology courses taken at Swarthmore). In addition, the applicant must have an average grade of $C(2.00)$ or better in all courses taken in the Biology Department, and an overall average grade of C (2.00) or better in the Division of Natural Sciences and Engineering at Swarthmore College (biology, physics and astronomy, chemistry and biochemistry, mathematics and statistics, engineering, and computer science). Unpublished grades in biology for the first semester of the first year will be considered in the C average requirement; passing grades of CR in other courses in the Division of Natural Sciences and Engineering are acceptable.

## Requirements for graduation

a. Credit requirements: In addition to fulfilling all the requirements to be accepted as a biology major, the student majoring in biology must have completed by the end of the senior year a minimum of eight biology credits, two of which come from a seminar (numbered 110-139). Students may take a course or seminar in biology as CR/NC but are not encouraged to do so.
b. Distribution requirements: Students majoring in biology must pass at least one course in each of the following three groups: I. Cellular and Molecular Biology, II. Organismal Biology and III. Population Biology. The digit in the tens place of the course number signifies the group of the course (i.e., BIOL 020 is a Group II course and BIOL 114 is a Group I course).
i. Students majoring in biology may count only one course numbered 003-009 toward the eight required credits. Courses numbered 003-009 do not meet the Group distribution requirement.
ii. BIOL 093 (Directed Reading) and BIOL 094 (Independent Research) count as
credits toward the biology major but cannot be used as distribution requirements. No more than two credits in BIOL 093, BIOL 094 or BIOL 093 and BIOL 094 in combination may be used to satisfy the eight-credit requirement for the biology major.
iii. CHEM 038 (Biochemistry) may be counted as a Group I course. In this case, the CHEM 038 grade will be counted towards the biology GPA.
c. Seminar requirement: All biology majors are required to include at least one two-credit seminar (with a number greater than 100) in their courses in the major. A seminar in biology is defined as an advanced offering that uses primary rather than secondary source materials and encourages active student participation in presentation and discussion of materials. Note that all two-credit seminars have at least one intermediate level course (numbered 10-39) as a prerequisite; the particular prerequisites for seminars vary and should be considered during selection of intermediate level courses.
i. All seminars must be taken at Swarthmore College.
ii. A student may, with permission of the faculty instructor, take a seminar without the laboratory component. A seminar without the laboratory component becomes a BIOL 093 and does not meet the seminar requirement.
d. Comprehensive examination: All biology course majors must satisfy the general College requirement of passing a comprehensive examination given by the major department. In biology, this comprehensive examination is the lecture series BIOL 097, Themes in Biology. BIOL 097 is offered only in the fall semester and is usually taken by students during the fall of their senior year. This course features a series of visiting speakers who give presentations connected by an overarching theme that can be addressed from all areas of biology. It enables faculty and students to interact on an intellectually challenging project, allows students to think about a topic from a variety of levels of biological organization and gives students the opportunity to meet and interact with a variety of distinguished biologists.
i. Students are required to take and complete the requirements of BIOL 097 but are not required to register for the course for credit. BIOL 097 does not count as one of the eight credits required for a major in biology, although it can be counted as one of the 32 credits required for graduation.
ii. Evaluation of a student's performance for this comprehensive examination will be Pass/No Pass and will be based on the questions prepared by each individual and team for each lecture, participation in
discussions, hosting a guest speaker and the final presentation. For students enrolled in BIOL 097 for credit, Pass/No Pass on the comprehensive exam will be translated into Credit/No Credit for purposes of earning credit.
iii. Students who fail BIOL 097 fail the comprehensive exam and thus may not graduate. The department will evaluate all such failures and decide on the appropriate action. Students will be notified of failure by the first day of classes in the spring semester of their senior year
iv. If a student is given permission by the College to be away from campus during the fall semester of the senior year, the Biology Department faculty may give permission to the student to write a senior paper and enroll in BIOL 095, a Senior Project, to satisfy the College requirement of a comprehensive examination. Alternatively, the student may be given permission by the Biology faculty to enroll in Themes in Biology during the junior year if the student has planned in advance to be away during the fall semester of the senior year.

## Course Minor

Students who wish to minor in biology must complete six credits, at least four of which are to be taken at Swarthmore College. The GPA requirement to enter the minor is the same as for biology course majors 2.00 in BIOL 001 and BIOL 002, 2.00 in courses taken in the Biology Department, and 2.00 in all courses taken in the Division of Natural Sciences and Engineering. Both BIOL 001 and BIOL 002 are required (although one or both of these may be replaced by credit from an advanced placement examination after another biology course is completed; note that the department strongly encourages all students with AP credit to take at least one of the introductory courses). There are no requirements for courses outside the department. There is no distribution requirement within the department for the minor. Only one course numbered 003-009 is allowed. Only one credit in BIOL 093 or BIOL 094 is allowed. CHEM 038 (Biochemistry) may be counted as one of the six biology credits

## Honors Major

## Acceptance criteria

a. The course requirements for an honors major in biology are the same as those for a course major in biology (see above).
b. Admission to the Honors Program in biology is based on academic record. Applicants to the Honors Program in biology must have a grade
point average (GPA) of 3.00 in all courses taken in the Natural Sciences and Engineering Division at Swarthmore College and must obtain a grade of B or better in all lecture courses and seminars used for the Honors Program. Applicants must also have a GPA of 3.00 in all biology courses. Unpublished grades in biology for the first semester of the first year will be considered in these requirements; passing grades of CR in other courses in the Division of Natural Sciences and Engineering are acceptable.
c. Students should list the anticipated fields of study, including two 2 -credit seminar courses, in their Sophomore Plan.
d. Students who are accepted into the program must select a research project and mentor by the middle of the junior year. Final approval of the student's Honors Program will occur during the fall semester of the senior year when the Final Honors Program Form is signed by the chairs of the participating departments.

## Requirements for graduation

 a. Credit requirements for honors: In addition to fulfilling the requirements to be accepted as biology honors major, the student majoring in biology must complete a minimum of eight biology credits. Students may take a course or seminar in biology as CR/NC but are not encouraged to do so. Students must earn a grade of B or better for all courses and seminars used for honors preparations. Honors students may not take Bio 097, Themes in Biology, for credit but are welcome and encouraged to attend the seminars.
## b. Distribution requirements for honors:

 Students graduating with an honors major in biology must pass at least one course in each of the following three groups: I. Cellular and Molecular Biology, II. Organismal Biology, and III. Population Biology. The digit in the tens place of the course number signifies the group of the course (i.e., BIOL 020 is a Group II course and BIOL 114 is a Group I course).i. The Biology Department faculty strongly encourage honors students to fulfill their group distribution requirements with intermediate- or seminar-level courses. Our experience has been that students with coursework at these levels have a more complete and deeper understanding of biology. In addition, students who alter their plans and withdraw from the Honors Program have much more flexibility in scheduling if they have already planned to fulfill the department distribution requirement with intermediate- or seminar-level courses. To mitigate the scheduling constraints imposed by the Honors Program, however, the following rules also apply to honors students:

1) BIOL 001 may be counted as a Group I course, or BIOL 002 may be counted
as a Group III course for purposes of the distribution requirement for honors majors.
2) An honors major who has taken both BIOL 001 and BIOL 002 can use them to satisfy any one of the distribution requirements.
3) AP credit may not be used to satisfy the distribution requirement.
c. Seminar requirement for honors: All honors biology majors are required to complete at least two 2-credit seminars (those with a number greater than 100) for honors preparations. A seminar in biology is defined as an advanced offering that uses primary rather than secondary source materials and encourages active student participation in presentation and discussion of materials. Note that all two-credit seminars have a prerequisite course from the intermediate level (numbered 010-039); the particular prerequisites for each seminar should be considered during selection of intermediate level courses.
i. The two seminars used for honors preparations must be taken from different faculty members and must be taken at Swarthmore College.
d. Research (Thesis) requirement for honors: At least one, but not more than two, credits of thesis research (BIOL 180) are required. Thesis research will be graded by an External Examiner. The thesis research will be a substantial project carried out over 2 semesters, 2 summers, or 1 summer +1 semester.
i. The primary mentor for the thesis need not be a Swarthmore faculty member, but a Swarthmore faculty member must agree to be an on-campus mentor.
ii. Students should plan on completing their research by the end of the fall semester of their senior year.
iii. The honors thesis has a page limit of 20 pages, not counting references, figures, figure legends or tables.
e. Senior Honors Study: Senior Honors Study (BIOL 199) is required for all honors majors in the spring semester of their senior year. This integrative/interactive program prepares each student to finalize and present his or her thesis work formally, in both oral and written forms. During the first few meetings of the semester, faculty members are available for consultation about data analysis. At mid-semester, students present posters of their projects to the faculty and other honors students for review. Comments from faculty and students on these posters will guide students in revising and polishing their written theses. SHS BIOL 199 is Credit/No Credit and the evaluation is done by the biology faculty.
f. Review of work for honors: The Biology Department will review the academic work of all

## Biology

candidates for the external examination at the end of the junior year and in November of their senior year. Progress on thesis research is assessed at the beginning of the fall semester of the senior year. At these times, the department may ask a candidate not to discontinue participation in the Honors Program. Withdrawal from the Honors Program must occur by December 1 of the student's senior year. At that time, the student is responsible for consulting with the department about satisfying the comprehensive requirement for the major.
g. Honors examinations: Students will take two written examinations, one based on each of their seminar preparations. The biology written examinations will be closed-book, 3-hour exams. The oral exams are normally one-on-one, but there are special circumstances under which a student may be examined by a panel of examiners. Oral examinations for seminar preparations are normally 45 minutes in length. The oral exams for thesis research are 60 minutes in length.

## Honors Minor

Biology minors in the Honors Program do not need to satisfy the distribution requirements of the major or take chemistry or mathematics unless required to do so for a specific preparation. Honors minors do not participate in Senior Honors Study. Applicants to the Honors Program in biology must have a GPA of 3.00 in all courses taken in the Divisions of Natural Sciences and Engineering, a GPA of 3.00 in all biology courses taken at Swarthmore College, and a grade of B or better in all lecture courses and seminars used for the Honors Program.
The program in biology for an honors minor requires at least four credits and usually consists BIOL 001 and BIOL 002, an intermediate level course (course number between 10 and 39) and a two-credit seminar (course number greater than 100).

## Application Process Notes for the Major or the Minor

In addition to the process described by the Dean's Office and the Registrar's Office for how to apply for a major, we also ask that you attend the departmental information meeting for sophomores. A copy of the Biology Student Handbook, which contains detailed information about courses and other aspects of the major, minor, and regularized special majors, is available online via a link from the departmental homepage at www.swarthmore.edu/biology.
Applicants from the sophomore or junior classes who have completed all the requirements with the appropriate grades are accepted as a course major in biology. Applicants from the sophomore class who are in the process of completing these requirements with the required GPA are accepted
contingent upon successful completion of the missing courses. Others who will not complete these requirements by the end of the current semester are deferred until the requirements are met. All students who have applied for the major in biology and who have been accepted or deferred are assigned an adviser in the Biology Department.

## Special Majors and Minors

## Biochemistry

The Biology Department, in collaboration with the Chemistry and Biochemistry Department, offers a course major and an honors major in biochemistry. This major gives students the opportunity to gain a strong background in chemistry with special emphasis on the application of chemistry to biological problems. Approval and advising for this special major are obtained through the Chemistry and Biochemistry Department and details about the course and honors major can be found in the Chemistry and Biochemistry section of this catalog. The Biology Department encourages biochemistry majors to take both BIOL 001 and BIOL 002 as a number of intermediate level courses in biology require both courses as a prerequisite.
a. Honors biochemistry majors are expected to participate in Senior Honors Study (BIOL 199) only if the thesis research is done in the Biology Department.
b. Honors biochemistry majors must conduct thesis research with a Swarthmore faculty member.

## Neuroscience

The Psychology and Biology departments offer a course major and an honors major that combines work in the two departments in a way that allows students flexibility in choosing the focus of their Neuroscience major. Approval and advising for this special major is done through both departments and details about the course and honors major can be found in the psychology section of this catalog.

## Bioeducation

The special major in bioeducation consists of six courses in biology. Students must complete at least one course in each group (I, II, and III) and one course in Evolution (BIOL 034). In addition to the six biology courses, students must complete CHEM 010 (or CHEM 003 plus CHEM 004) and CHEM 022, one year of mathematics (not MATH 001 or 003), and write a thesis to be supervised by faculty in the Biology and Educational Studies Departments. The special major in Bioeducation will include at least four education courses to be approved by the Educational Studies Department. Students should consult with the chair of the Educational Studies Department about further requirements for the Bioeducation special major. Approval and advising for this special major are
through both the Biology and Educational Studies Departments.

## Environmental Studies

A minor in environmental studies consists of an integrated program of five courses plus a capstone seminar (ENVS 091), which a student takes in addition to a regular major. The details of the minor and courses offered may be found at www.swarthmore.edu/envs.xml. The five courses must include at least one course in environmental science/technology; at least one course in environmental social science/humanities; and at least one more course from either of these two groups for a minimum of three courses from these two lists. Up to two of the five required courses may be chosen from the list designated adjunct and interdisciplinary courses. The capstone seminar is offered in the spring of the student's senior year. Advising for this program is by the chair of the Environmental Studies Committee.

## Other special majors

Individualized special majors may be constructed after consultation with the chairs and approval of the participating departments. The special major is expected to specify a field of learning that crosses departmental boundaries and can be treated as a sub-field within the normal departmental major. Individualized special majors consist of at least 10 credits, but usually not more than 12. A more detailed explanation of the individualized special major is found in Chapter 7 "Educational Program." Previously approved special majors include cognitive science, neuroscience, environmental science, biostatistics and biophysics.

## Thesis / Culminating Exercise

See Acceptance Criteria and Requirements for Graduation, Comprehensive Examination.

## Advanced Placement/International Baccalaureate Credit

Both BIOL 001 and BIOL 002 are required for the biology major and minor. However, one or both of these courses may be replaced by credit from one of the advanced placement examinations listed below, which will be granted after one biology course with laboratory is completed in the department. One biology credit is awarded for a score of 5 on the advanced placement examination; a score of 6 or 7 on the International Baccalaureate; or A on the Higher Level of Biology, Advanced Level Examination, German Arbitur, Austrian Matura or French Baccalaureate exam. Note that the department strongly encourages all students with advanced placement credit to take at least one of the introductory courses.

## Transfer Credit

Credit for courses taken at an institution at which the student was previously matriculated may be counted toward the biology major. Courses will be evaluated on an individual basis to determine which departmental distribution requirements they meet.

## Off-Campus Study

The Biology Department faculty enthusiastically support study abroad for their majors. Majors may study abroad and earn credits that count toward the requirements for a biology major or, alternatively, participate in programs without earning biology credit, while still completing the major in eight semesters. By college regulation, we cannot guarantee a specific amount of credit in advance toward the Swarthmore degree for successful completion of academic work completed at other institutions, with the exception of regular semester coursework at Bryn Mawr, Haverford, and the University of Pennsylvania completed under the four-college arrangement. Notwithstanding this restriction, our experience has shown that, with proper advance planning, study abroad is nearly always compatible with completion of the degree in eight semesters (including the semester(s) spent abroad). Planning is the key to success, and students contemplating study abroad are urged to see the Off-Campus Study Adviser early in the planning process.
Prior to studying abroad, students should obtain preapproval and credit estimation from the faculty member with teaching and research interests most closely related to the proposed course. At this time, the faculty member will describe what course characteristics are important for obtaining Swarthmore College credit, how credit will be calculated upon completion of the program, and which departmental distribution requirements, if any, the courses are likely to fulfill.
Upon return, the student should present a transcript, syllabus of the course (including the number of hours in lecture and laboratory), class notes, laboratory directions, examinations, laboratory reports and any papers or other written work (but not the textbooks) to the Biology Department's Academic Coordinator, who will then determine which faculty member will be asked to award credit for the course. Courses without a laboratory will be awarded no more than one-half credit.

## Research and Service-Learning Opportunities

## Academic year opportunities

## Research

Students may receive academic credit for research carried out either on- or off-campus (BIOL 094). Students interested in doing research on campus
should contact individual faculty members directly. For off-campus research credit in BIOL 094, the student must submit a one-page proposal to the department indicating 1) prior course work in the area of research, 2) previous technical experience in a laboratory, 3) the name and address of the director of the laboratory and the name of the person under whom the student will work directly, and 4) a short description of the proposed project and the methods to be used in the investigation. This proposal must be presented to the chair of the Biology Department, no later than one week before registration for the semester in which credit will be received.
There are also opportunities for students to be paid for research during the academic year. Individual faculty members should be contacted about the potential for positions in their laboratory.

## Academic Assistants

Each year approximately 10 students are selected to assist in the BIOL 001 and BIOL 002 laboratories. These students are selected for their academic excellence, laboratory expertise, and ability to communicate with students. Each selected student assists in one laboratory per week and attends a weekly staff meeting for the course. BIOL 002 hires two or three additional students to staff evening computer clinics. Contact the laboratory coordinator for BIOL 001 or BIOL 002 for more information.
Approximately eight students are selected as Science Associates (SAs) for excellence in comprehension, communication and compassion. SAs attend all BIOL 001 and BIOL 002 lectures on Monday, Wednesday, and Friday mornings, meet weekly with the SA program coordinator and faculty lecturers throughout the semester, and facilitate small group problem-based learning in evening study sessions. Contact Philip Kudish for more information.
Dean's tutors in biology are hired on a rolling basis, to support student learning in BIOL 001 and BIOL 002. This is a flexible student position in which tutors meet one-on-one with students at mutually convenient times, typically for one hour per week. Contact Philip Kudish for more information.
Experienced students are hired as laboratory assistants, van drivers and/or study guides in several intermediate level courses, including Genetics, Marine Biology, and Neurobiology. Students are also hired to help with the care of organisms associated with various courses and research laboratories. The departmental administrative assistant, animal facility manager and greenhouse manager, as well as individual faculty members, may be contacted about these positions.
The department collaborates with the Chester Children's Chorus
(www.chesterchildrenschorus.org/) to support

Science for Kids, a summer and academic year program focused on engaging children from the nearby Chester-Upland school district with experimental science. The academic year program meets on Saturdays while classes are in session and the College has funds from the Howard Hughes Medical Institute to pay Swarthmore students involved in the program.

## Student Committee for faculty searches

## Each year the Biology Department conducts

 several searches for replacement faculty to teach courses when regular members of the department are on leave. In some years there is a search for a permanent or tenure-track position. Students are invited to serve on a Student Search Committee to interview and help select a candidate.
## Summer opportunities

## Research

Paid fellowships for summer research are offered by the Biology Department as well as other institutions. Funds are available for field and laboratory research projects conducted on- and off- campus. Information regarding the awards, application deadlines and downloadable applications are available on the Biology Department website. An information session is usually offered at the end of the fall semester to describe opportunities in more detail.

## Community service

The Biology Department collaborates with the Chester Children's Chorus
(www.chesterchildrenschorus.org) to support Science for Kids, a summer and academic year program focused on engaging children from the nearby Chester-Upland school district with experimental science. The summer program commitment is 5-8 hours per week for 5 or 6 weeks and can usually be integrated with a fulltime job or research position elsewhere on campus. Contact Liz Vallen or Jocelyne Noveral if you will be on campus for the summer and are interested in participating.

## Teacher Certification

Students may complete the requirements for teacher certification through a program approved by the state of Pennsylvania. Options to pursue a biology major along with teacher certification or to pursue a special major in biology and educational studies are available. For further information about the relevant set of requirements, please refer to the Educational Studies section of the Bulletin.

## Life After Swarthmore

Graduate school
Many of our majors have gone on to graduate school in biology after completion of their degree. While some students attend graduate school immediately after graduation from Swarthmore,

## Biology

others work for at least a year or two before applying to graduate programs. This time between finishing at Swarthmore and graduate school can be used to gain more experience in biology, or to try out a new field. These experiences both strengthen your graduate school applications and help you to know what you are most interested in studying. One- or two-year jobs are available at a variety of research institutes, field stations, universities, museums, government laboratories and companies.
The Biology Student Handbook contains specific suggestions for applying to graduate programs and Biology Department faculty are happy to talk with students about programs and projects. Note that graduate schools in biology pay Ph.D. students a stipend for research and/or teaching. In addition, a few prestigious fellowships (e.g., National Science Foundation Graduate Research Fellowship) are awarded to the student (not to the program), giving the recipient more flexibility and autonomy in their graduate program.

## Career options/opportunities

In addition to graduate school and professional school (medical, law, veterinary, business) there are many other job possibilities. The American Institute of Biological Sciences web page (www.aibs.org/careers/), which describes jobs open to people with a degree in biology, is a helpful resource. A degree in biology can lead to positions in the following areas:
Research: This could include laboratory work, fieldwork, or some combination of the two. Major employers include universities, research institutes, non-government organizations and companies
(e.g., pharmaceutical, agricultural, biotechnology, food science).
Healthcare: Many doctors, dentists, nurses, veterinarians, laboratory technicians and other health care providers have backgrounds in the biological sciences. Other biologists utilize their background in disease prevention and control.
Environmental management: Park rangers, conservation biologists, zoo biologists, and land management specialists use their background in biology to develop and evaluate management plans to conserve natural resources.
Education: In addition to serving as university and college professors, some of our graduates teach in elementary and secondary schools, at museums and zoos, and at aquaria and nature centers. Biology majors also author newspaper and magazine articles, and may contribute to textbooks as writers, editors or illustrators.
Other ideas: Our graduates have obtained jobs in politics and policy, in areas such as economic and biological impacts of land use practices, science advising on biomedical procedures, effects of climate change, and educating members of Congress about scientific issues. Other biology majors have found positions in forensics,
bioinformatics and computational biology. Finally, some majors have had careers in investment banking, consulting and law.

## Courses

Biology course numbers reflect study at different levels of organization-General Studies (001009), intermediate courses in Cellular and Molecular Biology (010-019), Organismal Biology (020-029), Population Biology (030039), Seminars in Cellular and Molecular Biology (110-119), Seminars in Organismal Biology (120129), and Seminars in Population Biology (130139).

## General Studies

BIOL 001. Cellular and Molecular Biology
An introduction to the study of living systems illustrated by examples drawn from cell biology, biochemistry, genetics, microbiology, neurobiology, and developmental biology. One laboratory period per week.
Natural sciences and engineering practicum. Writing course.
1 credit.
Fall 2014. Staff.

## BIOL 002. Organismal and Population

 BiologyIntroduction to the study of organisms
emphasizing morphology, physiology, behavior, ecology, and evolution of whole organisms and populations.
One laboratory per week.
Natural sciences and engineering practicum.
Writing course.
1 credit.
Spring 2015. Staff.

## Group I: Cellular and Molecular Biology (010-019)

## BIOL 010. Genetics

This introduction to genetic analysis and molecular genetics explores basic principles of genetics, the chromosome theory of inheritance, classical and molecular strategies for gene mapping, strategies for identifying and isolating genes, the genetics of bacteria and viruses, replication, gene expression, and the regulation of gene activity. Major concepts will be illustrated using human and nonhuman examples.
One laboratory period per week.
Prerequisite: BIOL 001 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Fall 2014. Jenkins.

## Biology

## BIOL 011. Epigenetics

The growing field of epigenetics studies mechanisms of regulation of gene expression that are not due to changes in the DNA sequence. In this course, we will examine how epigenetic modifications to the genome influence processes such as gene dosage control, genetic imprinting, stem cell pluripotency, prion formation, and learning and memory. We will also discuss diseases that can result from abnormal epigenetic mechanisms. The laboratory component will provide hands-on experience exploring a range of epigenetic phenomena.
One laboratory period per week.
Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum. 1 credit.
Spring 2015. Vecsey

## BIOL 014. Cell Biology

A study of the ultrastructure, molecular interactions, and function of cell components, focusing primarily on eukaryotic cells. Topics include protein and membrane structure, organelle function and maintenance, and the role of the cytoskeleton.
One laboratory period per week.
Prerequisites: BIOL 001 and BIOL 002, and previous or concurrent enrollment in CHEM 022; or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Schottenfeld-Roames.
BIOL 016. Microbiology
This study of the biology of microorganisms will emphasize aspects unique to prokaryotes. Topics include microbial cell structure, metabolism, physiology, genetics, and ecology. Laboratory exercises include techniques for detecting, isolating, cultivating, quantifying, and identifying bacteria. Students may not take both BIOL 016 and BIOL 017 for credit.
One laboratory period per week.
Prerequisites: CHEM 022; BIOL 001 and BIOL
002 or by permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Spring 2015. Vollmer.

## BIOL 017. Microbial Pathogenesis and the Immune Response

A study of bacterial and viral infectious agents and of the humoral and cellular mechanisms by which vertebrates respond to them. Laboratory exercises include techniques for detecting, isolating,
cultivating, quantifying, and identifying bacteria. Students may not take both BIOL 016 and BIOL 017 for credit.
One laboratory period per week.

Prerequisites: CHEM 022; BIOL 001 and BIOL 002 or by permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015. Vollmer.
BIOL 019. Omics
An introduction to the study of genome structure, function, and evolution, with a focus on applying our understanding of genomes to answer
fundamental biological questions. The course will also investigate the related fields of proteomics, metabolomics, and systems biology.
One laboratory period per week.
Prerequisites: BIOL 001 and BIOL 002 or by permission of the instructor.
1 credit.
Natural sciences and engineering practicum.
Spring 2015. Kaplinsky.
Group II: Organismal Biology (020-029)
BIOL 020. Animal Physiology
An examination of the principles and mechanisms of animal physiology, ranging from the subcellular to the integrated whole animal in its environment. Possible topics include metabolism, thermoregulation, endocrine regulation, nutrient processing, and muscle physiology.
Prerequisites: BIOL 001 and BIOL 002. CHEM 010 is recommended.
Natural sciences and engineering practicum.
1 credit.
Spring 2015. Hiebert Burch.

## BIOL 021. Comparative Vertebrate <br> Anatomy

A system by system examination of vertebrate morphology with an appreciation for the variation offered by the diversity of vertebrate forms. While morphology or physical form is the focus, each anatomical system is presented within a context of function and evolution. Laboratory exercises will involve dissection.
One laboratory period or field trip per week. Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum. 1 credit.
Spring 2015. Downs.

## BIOL 022. Neurobiology

A comprehensive study of the basic principles of neuroscience, ranging from the electrical and chemical signaling properties of neurons and their underlying cellular and molecular mechanisms to the functional organization of selected neural systems.
One laboratory period per week.
Prerequisites: BIOL 001 and CHEM 010.

Natural sciences and engineering practicum. 1 credit.
Spring 2015. Siwicki.
BIOL 024. Developmental Biology
In this course, we will explore the process by which single cells (fertilized eggs) develop into complex organisms. Students will conduct detailed observations of live embryos and engage in independent experimental analysis during weekly laboratory sessions.
One laboratory period per week.
Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015. Davidson.
BIOL 025. Plant Biology
This course is an exploration of the diverse field of plant biology. Topics will include growth and development, reproduction, genetics and genome biology, evolution and diversity, physiology, responses to pathogens and environmental stimuli, domestication, agriculture, and applications of plant genetic modification. Laboratories will introduce organismal, cellular, molecular, and genetic approaches to understanding plant biology. One laboratory period per week.
Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015. Kaplinsky.
BIOL 026. Invertebrate Biology
The evolution, morphology, ecology, and physiology of invertebrate animals.
One laboratory period per week; some all-day field trips.
Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015. Merz.

## Group III: Population Biology (030-039)

BIOL 030. Animal Behavior
This course will focus on the mechanistic, functional consequences, evolution and development of animal behavior. We will explore the conceptual roots of ethology and the current state of the art. In addition to an understanding of the primary literature, course content will emphasize statistical methods in this field. Lab and field component combines descriptive and experimental approaches.
Lab required.
Prerequisites: BIOL 001 and BIOL 002; STAT 011 or equivalent is recommended.

1 credit.
Fall 2014. Baugh.
BIOL 034. Evolution
The course focuses on how the genetic structure of a population changes in response to mutation, natural selection, and genetic drift. Other topics, such as evolutionary rates, speciation, phylogeography, and extinction, provide a broader view of evolutionary processes.
One laboratory period or field trip per week. Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Formica.

## BIOL 035. History of Life

An exploration of the evolutionary history responsible for the incredible diversity of organisms on earth today. An understanding of this history will be developed through study of geological processes, reconstruction of evolutionary relationships, and a familiarity with the fossil record. Readings and discussion of primary literature will supplement the course material.
One laboratory per week.
Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum.
1 credit.
Fall 2014. Downs.
BIOL 036. Ecology
The goal of ecology is to explain the distribution and abundance of organisms in nature through an understanding of how they interact with their abiotic and biotic environments. Students will gain ecological literacy and practice by studying processes that operate within and between hierarchical levels or organization such as individuals, populations, communities, and ecosystems. All this knowledge will be applied to understand the current global changes occurring in nature as a result of human activities.
Three to 6 hours of laboratory and/or fieldwork in the Crum Woods per week, in addition to at least one field trip per semester.
Prerequisites: BIOL 002 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015. Machado.
BIOL 037. Conservation Biology
This course provides an overview of the
foundational concepts and future horizons of biodiversity conservation, and illustrates central issues in contemporary conservation with case studies, critical reading of primary literature, field experiences and exposure to quantitative methods.

One laboratory period or field trip per week.
Prerequisites: BIOL 002 or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Fall 2015. Nichols.

## BIOL 039. Marine Biology

Ecology of oceans and estuaries, including
discussions of physiological, structural, and behavioral adaptations of marine organisms.
One laboratory per week; several all-day field
trips.
Prerequisites: BIOL 001 and BIOL 002.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015. Merz.
BIOL 068. Bioinformatics
(See CPSC 068)
Prerequisite: CPSC 035 required.
Eligible for COGS credit.
Lab required.
1 credit.
Fall 2014. Soni.

## Independent Studies

BIOL 093. Directed Reading
A program of literature study in a designated area of biology not usually covered by regular courses or seminars and overseen by a biology faculty member.
0.5 or 1 credit.

Fall or spring semester. Staff.
BIOL 094. Research Project
Qualified students may pursue a research program
for course credit with the permission of the
department. The student will present a written report to the biology faculty member supervising the work.
0.5 or 1 credit.

Fall or spring semester. Staff.
BIOL 094A. Research Project:
Departmental Evaluation
Students carrying out a BIOL 094 research project will present a written and oral report on the project to the Biology Department.
0.5 credit.

Fall or spring semester. Staff.
BIOL 180. Honors Research
Independent research in preparation for an honors research thesis.
Fall or spring semester. Staff.

## Senior Comprehensive Examination

BIOL 095. Senior Project
With the permission of the department, a student may write a senior paper in biology to satisfy the requirement of a comprehensive examination for graduation.

## BIOL 097. Themes in Biology

Invited scientists present lectures and lead discussions on a selected topic that can be engaged from different subdisciplines within biology. Serves as the senior comprehensive and examination; it is required of all biology majors in course.
Fall 2014. Staff.

## Honors Study

## BIOL 199. Senior Honors Study

An interactive, integrative program that allows honors students to finalize their research thesis spring semester. BIOL 199 is not part of the 8credit minimum required for the biology major. Writing course.
1 credit.
Spring 2015. Staff.

## Seminars

## BIOL 110. Human Genetics

In this exploration of the human genome, the topics to be discussed will include patterns of human inheritance; classical and molecular strategies for mapping and isolating genes; the metabolic basis of inherited disease; the genetic basis of cancer; developmental genetics; complextrait analysis; the genetic basis of human behavior; and ethical, legal, and social issues in human genetics.
Attendance at medical genetics rounds and seminars at the University of Pennsylvania School of Medicine is required.
Prerequisite: Any Group I course or BIOL 024, or BIOL 025.
Lab required.
Natural sciences and engineering practicum.
2 credits.*
Not offered 2014-2015. Jenkins.
BIOL 112. From Cells to Organs
This course will examine the morphogenesis of various organs, including (but not limited to) the neural tube, the heart, the lungs, the pancreas, the kidneys, and the vasculature. Through reading and discussion of primary literature, we will explore how cells organize into different types of tubular structures.

## Biology

Independent or group research projects are required and will focus on fruit flies as a model system.
Prerequisites: Any Group I or Group II biology course.

2 credits.
Spring 2015. Schottenfeld-Roames
BIOL 114. Symbiotic Interactions
This seminar will focus on the molecular basis of plant-microbe, animal-microbe, and possibly microbe-microbe symbioses. In addition to studying specific systems, common themes and pathways will be analyzed and discussed (nutrient exchange, suppression of the immune response, specificity of host-symbiont recognition, etc.). Readings will be primarily from the research literature. Laboratory projects will use molecular techniques and likely focus on the sea anemone Aiptasia and its symbiotic, photosynthetic dinoflagellate, Symbiodinium.
One required laboratory per week.
Prerequisites: CHEM 022, and any Group I or Group II biology course.
Natural sciences and engineering practicum. 2 credits.*

Not offered 2014-2015. Vallen.
BIOL 115E. Plant Molecular Genetics and Biotechnology
The course will investigate the technological approaches that plant scientists are using to address environmental, agricultural, and health issues. Topics will include biofuels, nutritional engineering, engineering disease and stress resistance, bioremediation, and the production of pharmaceuticals in plants. This course consists of one discussion and one laboratory per week. Laboratory projects will include independent and ongoing research.
One required laboratory per week.
Prerequisites: BIOL 025 or any Group I course.
Natural sciences and engineering practicum.
2 credits.*
Not offered 2014-2015. Kaplinsky.
BIOL 116. Microbial Processes and Biotechnology
A study of microbial mechanisms regulating metabolism and gene expression in response to natural and experimental stressors. Technical and ethical applications of these concepts in biotechnology will be addressed.
Independent laboratory projects.
Prerequisites: BIOL 014, 016, 017, or CHEM 038.
Lab required.
Natural sciences and engineering practicum.
Writing course.

2 credits.
Not offered 2014-2015. Vollmer.
BIOL 119. Genomics and Systems Biology
Fundamental questions in biology are being answered using revolutionary new technologies including genomics, proteomics, metabolomics, systems biology, modeling, and large scale protein and genetic interaction screens. These approaches have fundamentally changed how scientists investigate biological problems and allow us to ask questions about cells, organisms and evolution that were impossible to address even five years ago. Readings will include animal, plant, fungal, and bacterial literature. Weekly laboratory projects will incorporate genomic and molecular approaches.
Lab required.
Prerequisites: Any Group I or Group II biology course.
Natural sciences and engineering practicum. 2 credits.*

Not offered 2014-2015. Kaplinsky.
BIOL 120. Sleep and Circadian Rhythms
This seminar will focus on the characteristics, disorders, and many possible functions of sleep and circadian rhythms. Topics will span molecular biology, genetics, animal and human behavior, and medicine. The research portion of the course will include short introductory studies of sleep and rhythmic behavior, followed by longer-term novel group research projects in fruit flies.
Lab required.
Prerequisites: BIOL 022 or BIOL 014. STAT 011 or equivalent recommended.
2 credits.
Not offered 2014-2015. Vecsey.
BIOL 123. Learning and Memory
Neural systems and cellular processes involved in different types of learning and memory are studied through reading and discussion of research literature.
Independent laboratory projects required.
Prerequisite: BIOL 022 or permission of the instructor.
Natural sciences and engineering practicum. 2 credits.
Fall 2014. Siwicki.
BIOL 124. Hormones and Behavior
This course will focus on endocrine regulation of animal behaviors, including reproduction, aggression, stress, sickness, parental care, and seasonality, with an emphasis on critical reading of primary literature.
Independent laboratory projects required.
Prerequisites: BIOL 020 , 022, or 023 or
permission of the instructor.

## Biology

Natural sciences and engineering practicum. 2 credits.*
Fall 2014. Hiebert Burch.
BIOL 125. Frontiers in Developmental Biology
Through discussion of the primary literature and independent experimental studies, students will investigate current gaps in our understanding of animal development. Potential topics include: the interplay between embryonic development and evolution; how gene regulatory networks generate complex patterns of cell identity; and the ability of cells to interpret their environment using dynamic internal structures.
Lab required.
Prerequisites: BIOL 010, 014, 024, or 025 or permission of instructor.
Natural sciences and engineering practicum. 2 credits.
Spring 2015. Davidson.

## BIOL 126. Biomechanics

Basic principles of solid and fluid mechanics will be explored as they apply to the morphology, ecology, and evolution of plants and animals.
Prerequisites: Any Group II or Group III course.
Lab required.
Natural sciences and engineering practicum. 2 credits.
Not offered 2014-2015. Merz.
BIOL 131. Animal Communication
This seminar will examine animal communication from a cross-disciplinary perspective with a focus on the physiological basis and evolution of communication systems and an emphasis on understanding the primary literature. We will build on material covered in BIOL 030. Lab and field component combines descriptive and experimental approaches with a quantitative emphasis. One required laboratory per week.
Prerequisites: Completion of BIOL 001 and 002; Completion of one of the following: BIOL 020, 022, 026, 030, 034, 036 or 039; Recommended: a course in statistics (e.g. STAT 011).
2 credits.*
Natural sciences and engineering practicum. Not offered 2014-2015. Baugh.

BIOL 135. Parasite Ecology and Conservation
This course will review the epidemiological, ecological, and conservation concepts required to understand the complex role of parasitic biodiversity in ecology, conservation and the medical sciences. Drawing on primary literature, the course will emphasize links between field observations and quantitative methods, as well as
cover a series of contemporary 'hot-topics' in which parasitic diversity plays a key role.
One laboratory period or field trip per week.
Prerequisites: BIOL 002 and BIOL 036 or BIOL
037 , or permission of the instructor.
2 credits.
Natural sciences and engineering practicum. Spring 2016. Nichols.

## BIOL 136. Molecular Ecology and

 EvolutionUnderstanding molecular techniques and analysis has become increasingly important to researchers in the fields of ecology and evolution. Through discussion of the primary literature, and independent laboratory projects, students will explore how molecular tools are being implemented in studies of biogeography, dispersal, mating systems, biological diversity, and speciation. Depending on interest, topics such as wildlife forensics, conservations genetics, human migration, molecular clocks, and bioinformatics will also be discussed.
One required laboratory each week with continuing, independent laboratory projects. Prerequisites: BIOL 002 or BIOL 034, and one Group I or Group III Biology course or BIOL 025. Natural sciences and engineering practicum.
2 credits.*
Not offered 2014-2015. Formica.

## BIOL 137. Biodiversity and Ecosystem

 FunctioningCan the current decline in global biodiversity alter the functioning and stability of ecosystems? The answer to this question can be reached by evaluating the ecological consequences of changing patterns in biodiversity, through either extinction or addition of species. We will review the relative or specific role of extrinsic factors (climate, disturbance, soils, etc.), genetic, taxonomic, and functional diversity in ecosystem functioning using both experimental and natural evidence.
Prerequisite: For Biology majors: any biology course numbered BIOL 026 or higher. For ENVS minors: participation in BIOL 036 is required. Other students should seek permission of the instructor before registration.
Lab required.
Natural sciences and engineering practicum.
2 credits.*
Not offered 2014-2015. Machado.
BIOL 138. Paleontology
The extraordinary diversity of life is the product of the ongoing processes of speciation and extinction. An understanding of the fossil record is essential to the formulation of robust hypotheses about

Biology
evolutionary history and the relationships that tie together all forms of life.
This seminar will use independent research projects and a synthesis of primary literature to highlight the key role that paleontological data play in a range of biological research pursuits. Prerequisites: Any GROUP II or III course.
Lab required.
Natural sciences and engineering practicum.
2 credits.*
Not offered 2014-2015. Downs.
*With permission of instructor, a student may take the discussion (NOT LAB) section of this seminar as 1 credit of BIOL 093.

| Coordinator: | SYDNEY CARPENTER (Studio Art) <br> Rose Maio (Administrative Coordinator) |
| :--- | :--- |
| Committee: | Timothy Burke (History) <br> Anthony Foy (English Literature) <br> Sharon Friedler (Dance) |
|  | Nina Johnson (Sociology and Anthropology) <br> Cheryl Jones-Walker (Black Studies, Educational Studies) <br> Keith Reeves (Political Science) |
|  | Micheline Rice-Maximin (Modern Languages and Literatures, French)${ }^{2}$ |
|  | Peter Schmidt (English Literature) <br> Christine Schuetze (Sociology and Anthropology) |
|  | Sarah Willie-LeBreton (Black Studies, Sociology and Anthropology) <br> Carina Yervasi (Modern Languages and Literatures, French) |
|  |  |

${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

The purpose of Black Studies is to introduce students to the history, culture, art, social relationships, and political, religious, and economic experiences of black people in Africa and the African Diaspora.
Black Studies has often stood in critical relation to the traditional disciplines. Its scholars have used traditional and nontraditional methodological tools to pursue knowledge that assumes the peoples and cultures of Africa and the African diaspora are central to understanding the world accurately. The courses in the Black Studies Program at Swarthmore enhance the liberal arts tradition of the College, acknowledging positivist, comparative, progressive, modernist and postmodern, postcolonial, and Afrocentric approaches.

## The Academic Program

## Course Minor

Students must successfully complete BLST 015 Introduction to Black Studies, normally in freshman or sophomore year. Usually, students must earn a grade point average of 3.0 or above in Black Studies coursework in order to be accepted into the program. In addition to Intro, students must complete 4 courses that BLST Program credit. Check the website or with the Administrative Coordinator for the most current list of courses. No more than 2 courses for the minor may be taken off of Swarthmore's campus. At least one course must be outside of the student's major and no more than two courses may double count, that is may be counted towards both the major and the minor.

## Honors Minor

Honors minors must meet all requirements of the course minor. Students participating in the Honors Program are invited to define a minor in the Black Studies Program. Honors minors in Black Studies
must complete a two-credit preparation for their honors portfolio to be submitted to external examiners. The following options apply:
(1) A two-credit honors thesis written under program supervision,
(2) A one credit thesis paired with a BLST course,
(3) A two-credit honors seminar that counts toward the BLST Program, or
(4) The pairing of two one-credit courses that count toward the BLST Program.
Requirements and Preparation for Honors

## Minors

The 2-credit honors thesis must include work done for the interdisciplinary minor and should entail some unifying or integrative principle of coherence. In addition, an honors thesis must also include substantial work (normally $50 \%$ or more), drawing on a discipline that is outside of the student's major. The Black Studies Committee must approve the proposal for the 2-credit honors thesis, normally during the fall of the student's senior year.
After consultation with the major department, minors may draw on these preparations to enhance or, where appropriate, to integrate their completed or ongoing senior honors study for the major. Work in the Black Studies Program may be represented in the honors portfolio sent to the external examiner by the inclusion of an essay designed to enhance and/or integrate work done in two or more courses, a revised and enriched seminar paper or a term paper from a Black Studies Program course, a video or audio tape of a creative performance activity in dance or music, or other approved creative work.

## Special Major

Students preferring more intensive work in Black Studies are welcome to design a special major by

## Black Studies

consulting with the program's coordinator, usually during sophomore year. The special major includes the requirements for the minor plus 5 additional credits, one of which usually includes a cap stone experience to be decided upon in consultation with the program's coordinator.

## Thesis / Culminating Exercise

Students may complete a 1-credit course thesis (BLST 091) as part of the Black Studies minor or special major. Permission will be granted only after consultation with the Black Studies coordinator and committee. Approval must be secured by the spring of junior year.

## Application Process Notes for the Major or the Minor

Students in any department may add an interdisciplinary minor in the Black Studies Program to their departmental major by fulfilling the requirements stated subsequently. Applications for admission to the black studies interdisciplinary minor should be made in the spring semester of the sophomore year to the program coordinator. All programs must be approved by the Black Studies Committee.

## Life After Swarthmore

Students with a background in black studies have pursued a number of paths after graduation. Some have worked in research, or social service organizations, while others have gone directly to graduate school. Many eventually become teachers or professors. Others work in the broadcasting, arts, journalism, international law, business, finance, or in non-governmental organizations. All consider black studies to have been an important part of their liberal arts education.

## Courses

Courses in the Black Studies Program are listed below. Courses of independent study, special attachments on subjects relevant to black studies, and courses offered by visiting faculty that are not regularly listed in the catalog may also qualify for credit in the program, subject to the approval of the Black Studies Committee. Students who wish to pursue these possibilities should consult with the program coordinator.
The following courses may be counted for credit in the Black Studies Program. Descriptions of the courses can be found in each department's course listings in this catalog.

## Black Studies

BLST 015. Introduction to Black Studies
This course introduces students to the breadth and depth of the discipline in the Black Studies
Program, using primary sources. It begins with an examination of current debates that define theory,
method, and goals in black studies. It also examines the movement from the more objectcentered Africana studies to subject- and agenticoriented black studies that occurred as a result of civil rights and anti-colonialist movements in the U.S., Africa, the Caribbean, and Europe. The course examines the challenges that were levied against traditional academic disciplines with the rise of anti-racist scholarship. It briefly examines the conversation between American, Caribbean, and African postcolonialists, and it allows students to delve into some of black studies' most current and exciting scholarship, with a focus on the U.S. 1 credit.
Fall 2014. Johnson.

## BLST 040G. Between the "Is" and the

 "Ought" Black Social and Political Thought(Cross-listed as SOCI 040G)
Our study of black social and political thought will include not only the pivotal scholarly texts, but also the social and political practice and cultural production of abolitionists, maroons, PanAfricanists, club women, freedom fighters, poets, and the vast array of "race men and women" across the spectrum of crusades. We will explore the range of intellectual and cultural production and protest ideology/action of Blacks through the politics and social observation of the preemancipation period, post-emancipation liberation struggles, and the post-colonial and post-civil rights period.
1 credit.
Not offered 2014-2015. Johnson.

## BLST 059. The Black Freedom Struggle:

## From Civil Rights to Hip-Hop

(Cross-listed as HIST 059)
This course is devoted to the study of the black efforts to achieve political, social and economic equality within the United States through protest. Students will investigate the links between protest efforts in the era of World War II, the nonviolent and radical phases of the modern civil rights movement and the development of a new culture of protest in the last quarter of the 20th century. In addition to studying historical texts, students will analyze various forms of protest media such as Black Radio Days, cartoons, paintings and plays of 1960s Black Arts Movement and the poems, lyrics, and graphic art of early hip-hop.
1 credit.
Spring 2015. A. Dorsey.
BLST 090G. Black Liberation 1969: Black Studies in History Theory and Praxis
(Cross-listed as HIST 090G)
This research seminar on the civil rights movement and student activism will investigate the history of the black student movement on

## Black Studies

college campuses in America circa 1968-1972
with an emphasis on unearthing the story of Swarthmore's own black student protest in 1969.
Students will write the first accurate history of the
black protest as well as develop a creative project
designed to educate the campus and broader community about these events.
1.5 credits.

Fall 2014. A. Dorsey.
BLST 091. Thesis
Writing course.
1 credit.
Each semester. Staff.
BLST 092. Seminar in Black Studies
1 credit.
Not offered 2014-2015.
BLST 093. Directed Reading
1 credit.
Each semester. Staff.
BLST 180. Honors Thesis
2 credits.
Each semester. Staff.
Dance
DANC 043. African Dance I
DANC 049. Performance Dance: Repertory: African
DANC 053. African Dance II
DANC 078. Dance/Drum Ensemble

## Economics

ECON 073. Race, Ethnicity, and Gender in Economics
ECON 081. Economic Development
ECON 082. The Political Economy of Africa
ECON 171. Labor and Social Economics
ECON 181. Economic Development
Educational Studies
EDUC 068. Urban Education
EDUC 167. Identities and Education
English Literature
ENGL 009S. First-Year Seminar: Black Liberty, Black Literature
ENGL 060. Early African American Print Cultures
ENGL 061. Core: Fictions of Black America
ENGL 062. Classic: Black Autobiography
ENGL 063. Contemporary Black Autobiography
ENGL 064. The New Negro Versus Jim Crow
ENGL 068. Black Culture in a "Post-Soul" Era
ENGL 119. Black Cultural Studies Seminar
Film and Media Studies
FMST 059. Re-Envisioning Diaspora

French
FREN 043. Ecrore le moi
FREN 045D. Le monde francophone: African
Cinema
FREN 046D. Poésies d'écritures françaises
FREN 056. Ces femmes qui écrivent/Reading French Women
FREN 077. Caribbean and African Literatures and Cultures in Translation
FREN 110. Histories d’Isles
FREN 111. Le Désir colonial: représentations de la différence dans l'imaginaire français
FREN 114. Théâtre d'écritures françaises
FREN 115. Paroles de femmes
History
HIST 007A. African American History, 16191865
HIST 007B. African American History, 1865-
Present
HIST 008A. West Africa in the Era of the Slave Trade, 1500-1850
HIST 008B. Mfecane, Mines, and Mandela: South
Africa From 1650 to the Present
HIST 008C. From Leopold to Kabila: Central
Africa’s Bad 20th Century
HIST 051. Black Reconstruction
HIST 053. Black Women in the Civil Rights Movements
HIST 058. Africa in America: Gullah/Geechee Life and Culture
HIST 059. The Black Freedom Struggle: Civil Rights to Hip Hop
HIST 089. Environmental History of Africa
HIST 090E. On the Other Side of the Tracks:
Black Urban Community
HIST 137. Slavery: 1550-1865
HIST 140. The Colonial Encounter in Africa
Linguistics
LING 052. Historical and Comparative Linguistics

## Literatures

LITR 059F. Re-Envisioning Diaspora
LITR 077F. Caribbean and African Literature and Culture in Translation

## Music

MUSI 003. Jazz History
MUSI 003B. Jazz and the Trans-Atlantic African
Diaspora
MUSI 061. Jazz Improvisation
MUSI 071. Afro-Caribbean Drum Circle
MUSI 078. Dance/Drum Ensemble
Philosophy
PHIL 061. Philosophy of Race and Gender

## Black Studies

## Political Science

POLS 070B. Politics of Punishment (instructor’s
permission required)
POLS 106. The Urban Underclass and Public
Policy (instructor's permission required)

## Religion

RELG 010. African American Religions
RELG 024. From Vodun to Voodoo: African Religions in the Old and New Worlds
RELG 025. Black Women and Religion in the United States
RELG 109. Afro-Atlantic Religions
Sociology and Anthropology
ANTH 003F. Culture and Religion in Africa
ANTH 003G. First-Year Seminar: Development and Its Discontents
ANTH 023C. Anthropological Perspectives on Conservation
ANTH 043F. Culture, Power and Religion in Africa
SOAN 020B. Urban Education
SOCI 007B. Introduction to Race and Ethnicity in the United States
SOCI 007C. Sociology Through African American Women’s Writing
SOCI 040I. Race and Place: A Philadelphia Story
SOCI 127. Race Theories

## Chemistry and Biochemistry

KATHLEEN P. HOWARD, Professor
ROBERT S. PALEY, Professor and Chair
PAUL R. RABLEN, Professor
THOMAS A. STEPHENSON, Professor ${ }^{4}$
STEPHEN T. MILLER, Associate Professor
LILIYA A. YATSUNYK, Associate Professor ${ }^{3}$
JESSICA L. SARVER, Visiting Assistant Professor
KEVIN D. WELCH, Visiting Assistant Professor
VIRGINIA M. HECK, Senior Lecturer
MARIA G. NEWPORT, Lecturer
CAROLINE A. BURKHARD, Laboratory Instructor
DONNA T. HALLEY, Laboratory Instructor
LORI P. SONNTAG, Laboratory Instructor
IAN MCGARVEY, Scientific Instrumentation Specialist
CATHERINE CINQUINA, Administrative Assistant
${ }^{3}$ Absent on leave, 2014-2015.
${ }^{4}$ Absent on administrative leave, 2014-2015.

The objective of the Chemistry and Biochemistry Department is to offer effective training in the fundamental principles and basic techniques of the science and to provide interested students with the opportunity for advanced work in the main subdisciplines of modern chemistry.
The department offers a course major, honors major, course minor, and honors minor in chemistry. In addition, the department offers the following special majors: in collaboration with the Biology Department, a course major and an honors major in biochemistry; and in collaboration with the Physics and Astronomy Department, a course major and an honors major in chemical physics.
We offer teacher certification in chemistry through a program approved by the state of Pennsylvania. For further information about the relevant set of requirements, please refer to the Educational Studies section.

## The Academic Program

Course Sequence Recommendations
Students planning a major in chemistry or biochemistry should complete Chemistry 010/010 HN and 022 during their first year at Swarthmore. During the sophomore year students can take 032 and 038 or 044 and 055 if the physics and mathematics requirements for physical chemistry have been completed. In addition, students planning a major in Biochemistry should complete Biology 001 in their first two years at Swarthmore. In the last two years, chemistry and biochemistry majors have some flexibility about the sequencing of the remaining requirements for the major.
However, students should note that completion of Chemistry 010/010 HN, 022 and one semester of a 40 -level or 50 -level course constitute a minimum set of prerequisites for enrollment in any Chemistry and Biochemistry Department 100level seminar. In addition, individual seminars
carry additional prerequisites so students should plan ahead accordingly.

## Course Major in Chemistry

The course major in chemistry consists of eight required core courses, as well as their mathematics and physics prerequisites, plus a 100-level elective seminar. All majors must complete the senior comprehensive requirement, as described in a later section.

| Requirements |  |
| :--- | :--- |
| CHEM 010/010 HN | CHEM 022 |
| CHEM 032 | CHEM 038 |
| CHEM 044 | CHEM 055 |
| CHEM 056 | CHEM 057 |
| One 100-level seminar |  |
| Ancillary Requirements (prerequisites for physical |  |
| chemistry): <br> PHYS 003 and PHYS 004/004L (or 007,008) <br> MATH 034 (or equivalent) |  |

## Acceptance Criteria

All applications are reviewed by the entire department. We consider grades in all collegelevel courses in chemistry, biology, mathematics, and physics. Decisions will not normally be made until two chemistry courses are completed and significant progress has been made towards meeting the physics and mathematics prerequisite requirements for enrollment in physical chemistry. An element in a student's acceptance as a major is our considered judgment of the student's potential for satisfactory performance in advanced course work and fulfillment of the comprehensive requirement.

## Course Minor in Chemistry

## Requirements

The course minor in chemistry has the following requirements:

1. The minor consists of five chemistry credits, plus any prerequisites necessary. The chemistry credits must include $010 / 010 \mathrm{HN}, 022$, and 044 and two additional credits, at least one of which must be numbered 050 or higher. Chemistry 001 and research credits $(094,096,180)$ may not be used to fulfill the requirements for the minor.
2. At least four of the five credits must be earned at Swarthmore College.
3. The minor will not be titled anything other than "chemistry." For example, there will be no minor in "organic chemistry" or "physical chemistry," etc.

## Acceptance Criteria

Applications are reviewed by the entire department, and decisions are made on the basis of the considered judgment of the faculty.

## Honors Major in Chemistry

## Requirements

An Honors preparation in Chemistry consists of three seminars - two in Chemistry (see item 1, below) and one in a minor - and a research thesis (see item 2, below). If, after following the procedures for applying for research in the department, an on-campus research mentor cannot be found, an Honors candidate should consult with the department's class adviser to explore alternate means of meeting the requirement.

1. Honors chemistry majors must take at least two seminars (instead of only one required for the course major). These seminars (and their associated prerequisites) will serve as two of the honors preparations in the major.
2. Honors chemistry majors are expected to write a senior research thesis under the supervision of an on-campus research mentor. The thesis represents the third honors preparation. Preparation for a Research Thesis within an Honors Program consists of enrollment in two credits of Chemistry 180 during the senior year. Except under extraordinary circumstances, students presenting a thesis for external examination will also spend the summer between their junior and senior years on campus initiating their research project.

## The Honors Exams for Majors and

 PreparationsThe fields offered by the Chemistry and Biochemistry Department for examination by external examiners as part of the Honors Program are the topics of the 100 -level seminars. The department will offer at least two of these preparations (seminars) during each academic year.

All fields in chemistry (except the Research Thesis) will be examined in three hour written examinations prepared by External Examiners. The Honors Research Thesis will be examined orally by the External Examiner chosen in that field. Honors oral exams for other preparations will be conducted by individual Examiners as well.

## Acceptance Criteria

Applications are reviewed by the entire department, and decisions are made on the basis of the considered judgment of the faculty. To be admitted as a major in the Honors Program, a student must present a minimum of two courses in chemistry taken at Swarthmore College. In addition, the department looks for indications that the student will participate actively in seminars and can successfully work in an independent manner. To be eligible, no grade in the department may be below a B- and the GPA in chemistry courses should be 3.0 or higher. A student previously accepted into the Honors Program but not maintaining this GPA in chemistry courses might be, by department decision, asked to withdraw from the Honors Program.

## Honors Minor in Chemistry

## Requirements

The honors minor in chemistry parallels the course minor, except that the program for an honors minor must include a seminar. The seminar serves as the basis of the honors preparation.

## The Honors Exam for Minors and Preparations

All of the fields available to majors are available for students wishing to minor in chemistry, with the exception of the Research Thesis. All minors must meet the same prerequisite requirements for seminars established by the Chemistry and Biochemistry Department majors.

## Acceptance Criteria

Applications are reviewed by the entire department, and decisions are made on the basis of the considered judgment of the faculty. To be admitted as a minor in the Honors Program in chemistry, a student must present a minimum of two courses in chemistry taken at Swarthmore College. In addition, the department looks for indications that the student will participate actively in seminars and can successfully work in an independent manner. To be eligible, no grade in the department may be below a B- and the GPA in chemistry courses should be 3.0 or higher. A student previously accepted into the Honors Program but not maintaining this GPA in chemistry courses might be, by department decision, asked to withdraw from the Honors Program.

## Special Major in Biochemistry

The biochemistry major combines work in both the Chemistry and Biochemistry Department and the Biology Department. The requirements for a biochemistry major include all the requirements for a chemistry major plus additional course work in biology.

\section*{Requirements <br> | CHEM 010/010 HN | CHEM 022 |
| :--- | :--- |
| CHEM 032 | CHEM 038 |
| CHEM 044 | CHEM 055 |
| CHEM 056 | CHEM 057 |}

One biochemically related 100-level seminar in the Chemistry and Biochemistry Dept. (CHEM 106,108 or 110 )

## Ancillary Requirements (prerequisites for

 physical chemistry):PHYS 003 and PHYS 004/004L (or 007,008)
MATH 034 (or equivalent)
Biochemistry majors must also complete either (1) a biochemically related sophomore-level Biology course (with lab) and a biochemically related advanced Biology seminar (with lab) or (2) two biochemically related, sophomore-level biology courses (with labs).
Biochemistry-related courses offered in the Biology Department include: BIOL 010 (Genetics), BIOL 011 (Epigenetics), BIOL 014 (Cell Biology), BIOL 016 (Microbiology), BIOL 017 (Microbial Pathogenesis and the Immune Response), BIOL 020 (Animal Physiology), BIOL 022 (Neurobiology), BIOL 024 (Developmental Biology) and BIOL 025 (Plant Biology). Please note the biology prerequisites for these courses and plan accordingly.
Biochemistry-related seminars offered in the
Biology Department include: BIOL 110 (Human Genetics), BIOL 111 (Developmental Genetics), BIOL 114 (Symbiotic Interactions), BIOL 115
(Plant Developmental Biology), BIOL 116 (Microbial Processes and Biotechnology), BIOL
120 (Sleep and Circadian Rhythms), BIOL 123
(Learning and Memory), and BIOL 124
(Hormones and Behavior). Please note the biology prerequisites for these courses and plan accordingly.

## Acceptance Criteria

Acceptance criteria are the same as for chemistry majors.

## Requirements for Honors Major in <br> Biochemistry

The honors biochemistry major has the same set of requirements as the course biochemistry major, plus the requirement of four honors preparations in at least two departments must also be met, as follows:

1. Topics in Bioinorganic Chemistry (CHEM 106) or Biochemistry (CHEM 108) or Biophysical Chemistry (CHEM 110).
2. One biochemically oriented preparation from the Biology Department.
3. A two-credit biochemically oriented Research Thesis carried out under the supervision of faculty from the Chemistry and/or Biology Departments.
4. One additional preparation chosen from the Chemistry and Biochemistry Department or from biochemically related preparations offered by either the biology or psychology departments.

## Special Major in Chemical Physics

The chemical physics major combines course work in chemistry and physics at the introductory and intermediate levels, along with some advanced work in physical chemistry and physics, for a total of between 10 and 12 credits. Laboratory work at the advanced level in either chemistry or physics is required; math courses in linear algebra and multivariable calculus are prerequisites for this work.

## Requirements

In preparation for a major in chemical physics, students must complete by the end of the sophomore year: (1) CHEM 010/010 HN and 022; (2) PHYS 005, 007, 008 (PHYS 003, 004 can substitute, but the $005,007,008$ sequence is strongly recommended); (3) further work appropriate to the major in either CHEM (044, 055, 056, and/or 057) or PHYS (014 and 050); (4) MATH 034. A chemical physics major will ordinarily include both semesters of physical chemistry (CHEM 044 and 055). A student may satisfy the requirement for laboratory work at the advanced level by completing a research thesis (CHEM 096 or 180), but in the absence of a research thesis, the major must include CHEM 057 or PHYS 082 in order to satisfy the requirement. Example of a special major in chemical physics: CHEM 022, 044, 055, 056, 057, 105; PHYS 007, 008, 014, 050, 111, 113.

## Acceptance Criteria

Acceptance criteria are the same as for chemistry majors, except that the faculty of both the chemistry and biochemistry and physics and astronomy departments are actively involved in the decision.

## Requirements for Honors Major in Chemical Physics

The honors chemical physics major has the same set of requirements as the course chemical physics major, plus the requirement of four Honors Preparations in at least two departments must also be met, as follows:

1. One preparation (seminar) chosen from the Chemistry and Biochemistry Department.

## Chemistry and Biochemistry

2. One preparation (seminar) chosen from the Physics and Astronomy Department.
3. A two-credit Research Thesis carried out under the supervision of faculty from the Chemistry and/or Physics Departments.
4. One additional preparation chosen from the Chemistry and Biochemistry Department or from the Physics and Astronomy Department.

## Comprehensive Requirements

## Chemistry

The senior comprehensive requirement consists of two components.
The first component revolves around the department's Colloquium Series. During the academic year, speakers from other institutions visit our campus and present colloquia about their research. Each speaker recommends a small amount of published background material, which students and faculty read in preparation for the visit. These materials also serve as the basis for a "preview session," during which a small group of students presents background and context for the speaker's research. All senior majors are required to (1) attend the preview sessions, (2) review the suggested readings, (3) participate as a presenter in at least one preview session during the year, and (4) attend the actual colloquium presentations.

The department offers two routes for satisfying the second component of the comprehensive requirement:
a. Completion of a two-credit research thesis. The thesis must be based on research carried out during the senior year and, in most cases, the preceding summer as well. Honors majors must choose this option. Senior majors who do not write a research thesis must take a series of short exams administered throughout the academic year. These exams are based on the presentations made by speakers in the department's Colloquium Series and the literature readings that the speakers suggest. The following regulations will govern the exams:

1. The department will administer a minimum of 7 exams during each academic year.
2. An exam will generally be administered during the week following a speaker's presentation.
3. The exams will be designed such that prepared students should be able to answer the question(s) in 60 minutes or less.
4. Satisfactory performance on any 4 of the exams constitutes completion of this component of the comprehensive requirement.
Finally, all students must attend at least one safety training session before the beginning of the senior year. These are offered one time per semester during the academic year and one time during the summer research session.

## Biochemistry

The comprehensive requirement for biochemistry majors is the same as for chemistry majors.

## Chemical Physics

The comprehensive requirement for chemical physics majors is the same as for chemistry majors. Occasionally, however, and on a case-bycase basis, the department is willing to negotiate a "hybrid" colloquium series for students completing a chemical physics special major. In consultation with both departments (chemistry and biochemistry and physics and astronomy), the student may draw up a list of colloquia pertinent to the special major and taken partly from the colloquium series of each department, and then participate in only these colloquia. However, in no event will the total number of talks for the year amount to fewer than the number of colloquia scheduled for the Chemistry and Biochemistry series.

## Advanced Placement/International Baccalaureate Credit

Students with a score of 5 on the Chemistry AP exam (taken their junior year in high school or later) or a score of 6 or 7 on the Higher Chemistry IB exam can place into Foundations of Chemical Principles - Honors (Chemistry 010 HN). Students can use the Chemistry Placement Exam to place into Chemistry 010 HN in the absence of an AP/IB score.

## Transfer Credit

It is sometimes possible to receive Swarthmore credit for chemistry courses taken at other colleges and universities, provided that they were taken after the student matriculated at Swarthmore. If you wish to take a chemistry course on another campus and to receive Swarthmore credit for doing so, it is essential that you follow the proper procedure and that you plan in advance. It is also important to realize that not all courses will be eligible for credit. See the department website for details.

## Off-Campus Study

The Chemistry and Biochemistry Department is eager to accommodate the study abroad aspirations of chemistry and biochemistry majors. However, substantial advance planning is required and interested students are encouraged to plan their Sophomore Plan carefully and consult with their academic adviser.

## Research

The Chemistry and Biochemistry Department offers opportunities for students to engage in collaborative research with faculty members. Each fall semester, the department hosts a series of short
presentations by faculty members, outlining the research projects available. This meeting, normally held in November, serves as the starting point for student participation in research during the following summer and/or academic year.

## Academic Year Opportunities

The Department of Chemistry and Biochemistry offers three ways for students to engage in supervised research for academic credit, during the academic year:
a. CHEM 094 (research project). Students may enroll in this course for either a half credit or a full credit. A half credit implies a time commitment of 5-7 hours per week, while a full credit implies a time commitment of 10-15 hours per week.
b. CHEM 096 (research thesis). A full year (two credits) of CHEM 096 corresponds to a research thesis for course majors.
c. CHEM 180 (honors research thesis). A full year (two credits) of CHEM 180 corresponds to a research thesis for honors majors.
All students who enroll for at least one full credit of research during an academic year are required to participate in the department's Colloquium Series and present a poster sometime during the academic year.

## Research Conducted in Other

Departments
Students writing a research thesis as part of their plan to satisfy the comprehensive requirement in a chemistry, biochemistry, or chemical physics major (see above) sometimes elect to carry out their research with a faculty member in an allied department, such as biology, physics and astronomy, or engineering. In general, such students have two options for how to register for courses corresponding to the thesis:
Option 1: Use the appropriate chemistry courses (two credits of CHEM 096 for a course thesis, or two credits of CHEM 180 for an honors thesis).
Option 2: Use the course designations appropriate to the department in which the research is conducted. For research conducted with a biology faculty member, for instance, a student might enroll in one credit of BIOL 180 and one credit of BIOL 199 over the course of the senior year. The thesis must ultimately consist of at least two full credits.

## American Chemical Society Certification

Certification by the American Chemical Society (ACS) requires a second seminar and a research thesis through a full year of CHEM 096 or 180 (in addition to the minimum chemistry major).

## Courses

CHEM 001. Chemistry in Context: Applying Chemistry to Society
This course covers a series of real-world issues with significant chemical content. Topics will be drawn from areas such as environmental chemistry, energy sources, materials, and human health. The course seeks to develop in students the ability to make informed decisions about issues that intersect with technology. Students may not receive credit for CHEM 001 if they have previously received credit for CHEM 010 or CHEM 010 HN.
One laboratory period every second week.
Natural sciences and engineering practicum.
Eligible for ENVS program.
1 credit.
Not offered 2014-2015.

## CHEM 010. Foundations of Chemical

 PrinciplesBuilding upon a student's high school introduction to chemistry, a study of the general concepts and basic principles of chemistry, including atomic and molecular structure, bonding theory, molecular interactions, and the role of energy in chemical reactions. Applications will be drawn from current issues in fields such as environmental, biological, polymer, and transition metal chemistry. CHEM 010 is the normal point of entry for the chemistry and biochemistry curriculum.
One laboratory period weekly.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Sarver, Welch.

## CHEM 010 HN. Foundations of Chemical

 Principles - HonorsTopics will be drawn from the CHEM 010 curriculum but discussed in greater detail and with a higher degree of mathematical rigor. Special emphasis will be placed on the correlation of molecular structure and reactivity, with examples drawn from such fields as biological, transition metal, organic, polymer, and environmental chemistry. Some familiarity with elementary calculus concepts will be assumed.
Can only be taken as either a first or second year student.
One laboratory period weekly.
Prerequisite: A score of 5 on the Advanced Placement Chemistry Examination taken junior year in high school or later, a score of at least 6 on the International Baccalaureate advanced (higher level) chemistry examination, or by performance on the departmental placement examination given the week prior to the start of classes of a student's first-year at Swarthmore.

Natural sciences and engineering practicum.
1 credit.
Fall 2014. Rablen.
CHEM 022. Organic Chemistry I
An introduction to the chemistry of some of the more important classes of organic compounds; nomenclature, structure, physical and spectroscopic properties; methods of preparation; and reactions of aliphatic and aromatic hydrocarbons, halides, and monofunctional oxygen compounds, with an emphasis on ionic reaction mechanisms.
One laboratory period weekly.
Prerequisite: CHEM 010 or CHEM 010 HN.
Natural sciences and engineering practicum. 1 credit.
Spring 2015. Rablen.
CHEM 032. Organic Chemistry II
A continuation of CHEM 022 with emphasis on more advanced aspects of the chemistry of monofunctional and polyfunctional organic compounds, multistep methods of synthesis, and an introduction to bio-organic chemistry.
One laboratory period weekly.
Prerequisite: CHEM 022.
Natural sciences and engineering practicum.
1 credit.
Fall 2014. Paley.

## CHEM 038. Biological Chemistry

An introduction to the chemistry of living systems: protein conformation, principles of biochemical preparation techniques, enzyme mechanisms and kinetics, bioenergetics, intermediary metabolism, and molecular genetics.
One laboratory period weekly.
Prerequisite: CHEM 032.
Natural sciences and engineering practicum. 1 credit.
Spring 2015. Miller.
CHEM 044. Physical Chemistry: Atoms, Molecules and Spectroscopy
A quantitative approach to the description of structure in chemical and biochemical systems. Topics will include introductory quantum mechanics, atomic/molecular structure, a range of spectroscopic methods and statistical mechanics. Systems of interest will range from gas-phase single molecules to condensed-phase macromolecular assemblies.
One laboratory period weekly.
Prerequisites: CHEM 010/010 HN; CHEM 022;
MATH 25 (or equivalent); and PHYS 003 and 004 (or 003, 004L, or 007, 008). Prior enrollment in MATH 034 (or equivalent) is recommended. Natural sciences and engineering practicum.

1 credit.
Fall 2014. Howard.

## CHEM 055. Physical Chemistry: Energy

 and ChangeA quantitative approach to the role that energy and entropy play in chemical and biochemical systems.
Topics include states of matter, the laws of thermodynamics, chemical equilibria, electrochemistry, the thermodynamics of solutions and phases and chemical kinetics/dynamics. Examples will be drawn from both real and ideal systems in chemistry and biochemistry.
Prerequisites: CHEM 010/010 HN; PHYS 003, 004 (or 003, 004L or 007, 008) and MATH 034 (or equivalent).
1 credit.
Spring 2015. Sarver.

## CHEM 056. Inorganic Chemistry

A study of the structure, bonding, and reactivity of inorganic compounds with emphasis on the transition metals. Included in the syllabus are discussions of crystal and ligand field theories, organometallic chemistry, and bioinorganic chemistry.
Prerequisites: Four prior semesters of college chemistry.
1 credit.
Spring 2015. Welch.

## CHEM 057. Advanced Integrated

## Experimental Chemistry

Integrated experimental projects incorporating analytical, inorganic, physical, and biochemistry methods. In the absence of extenuating circumstances, it is strongly recommended that this course be taken as a junior.
Prerequisites: CHEM 044; CHEM 056 must have already been completed or taken as a co-requisite. Natural sciences and engineering practicum. 1 credit.
Spring 2015. Howard, Welch.

## Seminars

Students should note that completion of CHEM $010 / 010 \mathrm{HN}, 022$, and one semester of a 40-level or 50 -level course constitute a minimum set of prerequisites for enrollment in any Chemistry and Biochemistry Department seminar. In unusual circumstances, the department will consider whether completion of work of comparable sophistication in another department can substitute for the requirement that a 40 -level or 50 -level chemistry course be completed prior to enrollment in a seminar. Individual seminars carry additional prerequisites, as listed here.

CHEM 102. Topics in Organic Chemistry
This course will address selected advanced topics of current interest in the field of synthetic organic
chemistry. Material will largely be drawn from the current research literature and will likely include such topics as the applications of stoichiometric and catalytic organometallic chemistry, the control of relative and absolute stereochemistry, the use of "organocatalysts," and carbohydrates. The total synthesis of architecturally challenging natural products will serve to highlight the application of these technologies.
Additional prerequisites: CHEM 032 and CHEM
044,055 or 056.
1 credit.
Spring 2015. Paley.

## CHEM 105. Quantum Chemistry and

 SpectroscopyAdvanced consideration of topics in quantum mechanics including the harmonic oscillator, angular momentum, perturbation theory, and electron spin. These concepts, along with molecular symmetry and group theory, will be applied to the study of atomic and molecular spectroscopy.
Additional prerequisites: CHEM 044, MATH 34 (or equivalent). Some familiarity with linear algebra will be useful.
1 credit.
Not offered 2014-2015.

## CHEM 106. Topics in Bioinorganic

## Chemistry

This seminar will start with a brief review of the basic principles of inorganic and biological chemistry as well as an overview of relevant biophysical techniques. Materials will be drawn largely from the primary literature. Students will be challenged to read and evaluate scientific papers critically. The main topics of this course will have to do with the function and coordination of metals in biological systems: important cofactors and metal clusters that carry out catalysis and electron transfer reactions, metal homeostasis, metals in medicine, and the importance of inorganic model compounds to understand the function of biological systems.
Additional prerequisites: CHEM 038 and CHEM 056.

1 credit.
Not offered 2014-2015.
CHEM 108. Topics in Biochemistry
Physical methods used to study high-resolution biomacromolecular structure will be discussed, using examples from the primary literature.
Techniques used to measure the forces stabilizing intramolecular and intermolecular interactions and their application to proteins will be included.
Additional prerequisites: CHEM 038, CHEM 044 or 055.
1 credit.
Fall 2014. Miller.

## CHEM 110. Topics in Biophysical

 ChemistryAn introduction to the interdisciplinary field of biophysical chemistry in which biological systems are explored using the quantitative perspective of the physical scientist.
Additional prerequisites: CHEM 038, CHEM 044 or 055.
1 credit.
Not offered 2014-2015.

## Student Research

All students who enroll in one or more research courses during the academic year are required to participate in the department's colloquium series and present the results of their work at a poster session during the academic year.

## CHEM 094. Research Project

This course provides the opportunity for qualified students to participate in research with individual faculty members. Students who propose to take this course should consult with the faculty during the preceding semester concerning areas under study. This course may be elected more than once. Students may enroll in this course for either a half credit or a full credit. A half credit implies a time commitment of 5-7 hours per week, while a full credit implies a time commitment of $10-15$ hours per week.
0.5 or 1 credit.

Each semester. Staff.
CHEM 096. Research Thesis
Chemistry and biochemistry majors will be provided with an option of writing a senior research thesis as part of their comprehensive requirement. Thesis students are strongly urged to participate in on-campus research during the summer between their junior and senior years. A minimum of 2 credits of CHEM 096 must be taken during the last three semesters of the student's residence at Swarthmore.
1 credit.
Each semester. Staff.
CHEM 180. Honors Research Thesis
An opportunity for students in the External Examination Program to participate in research with individual faculty members. The thesis topic must be chosen in consultation with a member of the faculty and approved early in the semester preceding the one in which the work is to be done. A minimum of 2 credits of CHEM 180 must be taken during the last three semesters of the student's residence at Swarthmore.
1 credit.
Each semester. Staff.

## Classics

ROSARIA MUNSON, Professor
WILLIAM N. TURPIN, Professor
GRACE LEDBETTER, Associate Professor and Chair
JEREMY LEFKOWITZ, Assistant Professor
DEBORAH SLOMAN, Administrative Assistant

The field of Classics is devoted to the study of the cultures of the ancient Greeks and Romans. The curriculum includes training in the Greek and Latin languages at the Elementary, Intermediate, and Seminar levels. In addition, the department offers a range of courses on the history, literature, philosophy, religion, and cultural life of antiquity, including classes that explore the reception of the Classical past in later periods up to the present day. The rigorous training in Greek and Latin that is the hallmark of Swarthmore's Classics program has meant that the department enjoys remarkable success in producing students who go on to become leaders in the field. But because it is a truly interdisciplinary field, Classics also appeals to students with a wide variety of interests and career goals.

## The Academic Program

Greek, Latin, classical studies, and ancient history may be a major or minor subject in either the Course or the Honors Program. Three of these majors (Greek, Latin, and ancient history) require advanced work in one of the original languages, while a major or minor in classical studies and a minor in ancient history encourage but do not require language study. Acceptance into one of the majors is dependent on promising work in relevant courses (normally indicated by A's and B's).

## Course Major

Greek: 8.5 credits required, including 0.5-credit senior course study (see below). Two credits must come from an honors seminar in Greek.
Latin: 8.5 credits required, including 0.5 -credit senior course study (see below). Two credits must come from an honors seminar in Latin.
Classical Studies: 8.5 credits in Greek, Latin, classical studies or ancient history including $0.5-$ credit senior course study (see below). Two credits must come from a Classical Studies Capstone Seminar plus attachment. Other departments on campus offer courses focused on aspects of classical antiquity (e.g. art history, philosophy, political science), and usually these will count toward completion of the major; students are advised to consult the chair for an accurate list of such courses. For 2014-2015, these additional courses are ARTH 018, PHIL 020, PHIL 102, POLS 011, POLS 100, RELG 057, and 059.
Ancient History: A major in ancient history consists of four ancient history courses (ANCH $031,032,042,044,056$, or 066), four credits in Greek or Latin, two of which must be from an
honors seminar, and 0.5-credit senior course study. A second seminar in Latin or Greek can be substituted for two ancient history courses.

## Course Minor

Greek: 5 credits in Greek.
Latin: 5 credits in Latin.
Classical Studies: 5 credits in Greek, Latin, classical studies or ancient history
Ancient History: A course minor in ancient history will consist of four courses in ancient history, and an attachment to one of them. That attachment will be presented to members of the department for evaluation and oral examination.

## Culminating Exercise/Senior Course Study

The culminating experience for course majors in Greek, Latin, classical studies, and ancient history is a 0.5 -credit senior course study (GREK 098, LATN 098, CLST 098, ANCH 098). This independent study will be taken in the senior year to prepare for a graded oral exam taken in the spring with the Classics faculty. The oral exam will be based on a 2 -credit seminar the student has completed. The students will submit their final exams and a paper from the seminars, which may be revised. The oral exams focus on the seminars as a whole as well as on the papers and written exams submitted. Enrollment in senior course study will not prevent enrollment in a standard 4 credit course load.

## Honors Program in Classics

Greek and Latin: For a major in Greek or Latin, preparation for honors exams will normally consist of three seminars; students may take a fourth seminar in the major, but not for external examination. A student minoring in Greek or Latin will take one external examination based on one seminar. Minors are, however, strongly encouraged to take more than one seminar, in order to be adequately prepared for the examination.
Classical Studies: Honors majors will complete 8 credits in Greek, Latin, classical studies, or ancient history. They must complete three 2-credit units of study, of which at least one must be a Classical Studies Capstone Seminar (plus attachment). Preparation for the honors exam will consist of the three 2-credit units of study. Minors will complete 5 credits in Greek, Latin, classical studies, or ancient history including a Classical Studies

## Classics

Capstone Seminar plus attachment. The Classical Studies Capstone Seminar plus attachment will serve as the honors preparation for the minor.
Ancient History: For a major in ancient history, one preparation will be a seminar in either Latin or Greek. The other two preparations can be another seminar in the same language and a course-plusattachment, or two courses-plus-attachments. Students minoring in ancient history will take three courses in ancient history and add an attachment to one of them. That course-plus attachment will be the preparation for the external exam. No ancient language is required for this minor.

## Senior Honors Study

All honors majors and minors will select one paper from each seminar to be sent to the external examiner for that seminar. The student is free to submit the paper with minor or major revisions or no revisions at all. The department suggests a word limit of 2,000-3,000 words as an appropriate guideline ( 4,000 words is the senior honors limit set by the College). Majors will, therefore, submit three such papers, and minors will submit one. Senior Honors Study is not required for students whose Honors preparation is a course with an attachment. The portfolio sent to external examiners will contain the seminar papers, together with syllabi and related materials, if any, from the instructors. A combination of (threehour) written and (one-hour) oral exams will be the mode of external assessment for seminars. For course-plus-attachment, examiners will receive the course syllabus and the written product of the attachment. The exam will be just an oral assessment. However, the mode of external assessment for Classical Studies honors minors will be a three-hour written exam and oral exam on the seminar and attachment.

## Advanced Placement/International Baccalaureate Credit

The department will grant one credit (only) for one or more grades of 5 on the Latin AP, or the IB equivalent. This credit may be counted toward the major or minor in Latin or CLST.

## Off-Campus Study

A semester of off-campus study is usually possible for majors in classics. The department is a member of the Intercollegiate Center for Classical Studies in Rome, and encourages students in their junior year to participate, preferably in the fall semester. The ICCS program offers traditional courses in Greek, Latin, Italian and renaissance and baroque art history, and a required two-credit course based on first-hand exposure to the archaeological and artistic monuments of the ancient world to be found in Rome, the Bay of Naples, and Sicily.

## Research and Summer Study

The department often sponsors students in independent summer research, often in cooperation with a faculty member. It regularly supports the summer study of Latin and Greek at other institutions, especially at the intermediate and introductory levels. In particular our students have had success with intensive summer courses in elementary Latin and Greek at Berkeley, CUNY, and University College, Cork, Ireland. The department has also supported students participating in archeological excavations of classical sites, including in recent years the AngloAmerican Project at Pompeii and the SMU / Franklin and Marshall field school at Poggio Colla in Tuscany.

## Life After Swarthmore

Many of our majors, and some minors, go on to pursue careers as professional classicists, at both the college and secondary levels. Swarthmore students well prepared in both Latin and Greek are competitive candidates for excellent graduate programs in classics, and in related fields such as medieval studies, English, history, and archaeology. In recent years Classics majors have been admitted to graduate programs at UNCChapel Hill, Penn, CUNY Graduate Center, Yale, Harvard, Duke, Princeton, University of Chicago, and Stanford. Others have successfully obtained teaching positions in secondary schools, both public and private; it is worth mentioning that there is a significant demand for teachers of Latin, particularly at the secondary level, and some states, including Pennsylvania, make it possible to teach Latin in public schools before obtaining professional certification. Most majors and minors have successfully pursued careers only tangentially related to classics, often after attending professional school. There are Swarthmore classicists in law, medicine, business, art, and music, and many other walks of life.

## Greek

GREK 001-002. Intensive First-Year Greek
Students learn the basics of the language and are introduced to the culture and thought of the Greeks. The course provides a selection of readings from the most important Greek authors, including Herodotus, Thucydides, Sophocles, Euripides, and Plato. The course meets four times a week and carries 1.5 credits each semester. Students who start in the GREK 001-002 sequence must pass GREK 002 to receive credit for GREK 001.
Humanities. 1.5 credits.
Year-long course.
Fall 2014. Lefkowitz.
Spring 2015. Turpin.

## GREK 011. Plato and Socratic Irony

This course will focus on one or more of the Socratic dialogues of Plato in Greek. Emphasis will be placed on developing skills in reading and composing Greek, and also on the analysis of Plato's characteristic literary techniques and philosophical thought. The course will include a systematic review of grammar, syntax, and vocabulary. GREK 011 is normally taken after GREK 002.
Humanities. 1 credit.
Not offered 2014-2015.

## GREK 012. Homer's Iliad

This course examines the literary, historical, and linguistic significance of Homer’s Iliad. Selections from the poem are read in Greek and the entire poem is read in translation.
Humanities. 1 credit.
Spring 2015. Munson.

## GREK 013. Introduction to Plato's

 RepublicThe main focus will be on reading Book I of the Republic in Greek, giving sustained attention Greek grammar and vocabulary. We will also read the rest of the Republic in English, and consider select problems of interpretation, such as the role of Plato’s "guardians," the place of poetry, and Plato's purpose in exploring an "ideal state." The course is intended for students who have completed a first year of classical Greek, or the equivalent in High School or summer courses. Humanities. 1 credit.
Fall 2014. Turpin.
GREK 091. Attachment to a Classical Studies Capstone Seminar
Students read texts in Greek that complement a Classical Studies Capstone Seminar. Humanities. 1 credit.

## GREK 093. Directed Reading

Independent work for advanced students under the supervision of an instructor. Interested students should contact the chair as soon as possible concerning possible authors and topics. Humanities. 1 credit.

## GREK 098. Senior Course Study

Independent study taken normally in the spring of senior year by course majors. Students will prepare for a graded oral exam held in the spring with department faculty. The exam will be based on any two-credit unit of study within the major (Honors seminar or course plus attachment), with students submitting their final exam and a paper, which can be revised.
0.5 credit.

## Latin

LATN 001-002. Intensive First-Year Latin
Students learn the basics of the language, with readings drawn from Plautus, Cicero, Sallus, Martial, the emperor Augustus, and Catullus. The course meets four times a week and carries 1.5 credits each semester. Year-long course.
Students must pass LATN 002 to receive credit for LATN 001.
Humanities. 1.5 credits each semester.
Fall 2014. Munson.
Spring 2015. Lefkowitz.
LATN 013. Tradition and Transformation in the Roman Empire
Selected readings by the poet Ovid. Topics will include the range of poetic genres in which Ovid wrote, the characteristics of his writing that remain stable across these different genres, and Ovid's relationship to the history and culture of the time in which he lived.
Prerequisite: LATN 011 or its equivalent.
Humanities. 1 credit.
Not offered 2014-2015.
LATN 014. Medieval Latin
Readings are chosen from the principal types of medieval Latin literature, including religious and secular poetry, history and chronicles, saints’ lives, satire, philosophy, and romances.
Prerequisite: LATN 011 or its equivalent.
Humanities. 1 credit.
Not offered 2014-2015.
LATN 017. Latin Poetry and the Modernists This course explores Latin poems influential in the creation of the modernist verse of, in particular, Ezra Pound and T.S. Eliot. The Latin texts are read in the original, for their own sake and in their own context. But we also explore the readings given them by the modernists, in an attempt to assess the uses and importance of their common literary tradition.
Prerequisite: LATN 011 or its equivalent.
Humanities. 1 credit.
Not offered 2014-2015.
LATN 019. Roman Imperial Literature
This course will consider selected poetry or prose from the Roman imperial period. Authors may include Vergil, Ovid, Seneca, Juvenal, Tacitus, or others. The course is appropriate for students who have done at least one college Latin course at the intermediate level and for some students who have done college-level Latin in high school. Students with no previous Latin courses at the college level should consult the department chair before enrolling.
Humanities. 1 credit.
Spring 2015. Lefkowitz.

## LATN 023. The Roman Novel

This course focuses on Petronius' Satyricon and/or Apuleius’ Golden Ass. Besides reading extensively from the works themselves, we will consider what the genre "novel" means in Latin, what these works have to tell us about Roman society and language, and various other topics arising from the novels and from contemporary scholarship about them.
Humanities. 1 credit.
Not offered 2014-2015.

## LATN 024. Latin Poetry and the Roman

 RevolutionThe transformation of the Roman Republic into the monarchy of Augustus and the emperors was accompanied by a similar transformation in Roman poetry. In place of the staunch independence of Lucretius and the outrageous irreverence of Catullus, the new poets Propertius, Horace, and Vergil wrote poetry that responded directly or indirectly to the new political world. This course will explore one or more of these poets in depth, both within their political context and within the broader literary tradition. Students will read modern scholarly criticism, and develop their own critical approaches to writing about Latin poetry. They will also review basic Latin morphology and syntax, and build a stronger Latin vocabulary. The course is suitable for those with 3-4 years of High School Latin, or 1-2 years of Latin in college.
Writing course.
Humanities. 1 credit.
Fall 2014. Turpin.

## LATN 050. The Age of Nero

This course will explore Latin texts from the circle of Nero, such as Petronius' Satyrica and Seneca's De Providentia. The Neronian texts will be complemented by Tacitus' later account of the period in his Annales. Selected Latin texts will be supplemented by further reading in English translation. The course will explore the events and the ethos of Nero's regime, including his dramatic matricide, his interesting hobbies, his disastrous marriages, the Great Fire of Rome, the scapegoating of Christians, the Pisonian Conspiracy, and the "Stoic Opposition."
Students should have completed one or two intermediate Latin courses at the college level, or the equivalent in High School (e.g. successful completion of the AP or IB programs). The course may be taken in conjunction with an attachment (Latin 51A) to create a two credit honors preparation.
Humanities. 1 credit.
Fall 2014. Turpin.

## LATN 091. Attachment to a Classical

## Studies Capstone Seminar

Students read texts in Latin that complement a
Classical Studies Capstone Seminar.
Humanities. 1 credit.

## LATN 093. Directed Reading

Independent work for advanced students under the supervision of an instructor. Interested students should contact the chair as soon as possible concerning possible authors and topics. Humanities. 1 credit.

## LATN 098. Senior Course Study

Independent study taken normally in the spring of senior year by course majors. Students will prepare for a graded oral exam held in the spring with department faculty. The exam will be based on any two-credit unit of study within the major (Honors seminar or course plus attachment), with students submitting their final exam and a paper, which can be revised.
0.5 credit.

## Ancient History

All of the courses in ancient history count for distribution credit in social sciences. They also count as prerequisites for advanced courses in the History Department and as part of a major in history.

## ANCH 016. First-Year Seminar: Augustus

 and RomeThe great-nephew and adopted son of Julius Caesar rose to sole power in Rome after a series of civil wars culminating in the defeat of Antony and Cleopatra. He, along with his wife Livia, transformed Rome by creating a monarchical system that hid the real power behind the traditional institutions of the Roman republic. The process was supported and explained by a unique program of literary, artistic, and architectural revival. Ancient authors to be read (in English) may include Augustus himself, Livy, Vergil, Horace, Propertius and Ovid; we will also study the artistic and architectural projects that helped to communicate the ideologies of the new regime. Writing course.
Social sciences. 1 credit.
Not offered 2014-2015.
ANCH 023. Alexander and the Hellenistic World
The conquests of Alexander the Great (332-323 BCE) as far as Afghanistan and the Hindu Kush mark one of the great turning points of ancient history. In his wake, what it meant to be Greek was radically changed, and a new world and culture emerged. In this course, we start with the life and campaigns of the Macedonian King, before turning to the Hellenistic world of his

## Classics

successors, following events down to the rise of Rome. Along with the political narrative, the course will consider Hellenistic poetry and historiography, archaeology and architecture, and the documentary evidence for daily life.
Social sciences. 1 credit.
Not offered 2014-2015.

## ANCH 031. The Greeks and the Persian

 EmpireThis course studies the political and social history of Greece from the Trojan War to the Persian Wars. We will examine the connections between Greeks and non-Greeks and their perceptions of mutual differences and similarities. Readings include Homer, Hesiod, the lyric poets (including Sappho), and Herodotus and Near Eastern documents.
Writing course.
Social sciences. 1 credit.
Not offered 2014-2015.

## ANCH 032. The Roman Republic

This course studies Rome from its origins to the civil wars and the establishment of the principate of Augustus (753-27 B.C.E.). Topics include the legends of Rome's foundation and of its republican constitution; the conquest of the Mediterranean world, with special attention to the causes and pretexts for imperialism; the political system of the Late Republic, and its collapse into civil war.
Writing course.
Social sciences. 1 credit.
Not offered 2014-2015.
ANCH 042. Democratic Athens
Using diverse primary sources (Thucydides’ Histories, tragedy, comedy, and others), this course explores several aspects of classical Athenian culture: democratic institutions and ideology, social structure, religion, intellectual trends, and the major historical events that affected all of these and shaped the Greek world in the fifth and early fourth centuries B.C.E.
Writing course.
Social sciences. 1 credit.
Fall 2014. Munson.

## ANCH 044. The Early Roman Empire

A detailed study of the political, economic, social, and cultural history of the Roman world from the fall of the Republic through the Antonine Age (50 B.C.E.-C.E. 192). Ancient authors read include Petronius; Apuleius; Suetonius; and, above all, Tacitus.
Writing course.
Social sciences. 1 credit.
Spring 2015. Turpin.

## ANCH 056. Pagans and Christians in the

 Roman EmpireThis course considers the rise of Christianity and its encounters with the religious and political institutions of the Roman Empire. It examines Christianity in the second and third centuries of the Common Era and its relationship with Judaism, Hellenistic philosophies, state cults, and mystery religions and concentrates on the various pagan responses to Christianity from conversion to persecution. Ancient texts may include Apuleius, Lucian, Marcus Aurelius, Porphyry, Justin, Origen, Lactantius, Tertullian, and the Acts of the Christian Martyrs.
No prerequisite exists, though CLAS 044 (Early Roman Empire) and RELG 004 (New Testament and Early Christianity) provide useful background. Writing course.
Social sciences. 1 credit.
Not offered 2014-2015.
ANCH 066. Rome and Late Antiquity
This course will consider the history of the Roman Empire from its near collapse in the third century C.E. through the "conversion" of Constantine and the foundation of Constantinople to the sack of Rome by Alaric the Visigoth in 410 C.E. Topics will include the social, political, and military aspects of this struggle for survival as well as the religious and cultural conflicts between pagans and the Christian church and within the Church itself. Principal authors will include Eusebius, Athanasius, Julian the Apostate, Ammianus Marcellinus, Ambrose, and Augustine.
Writing course.
Social sciences. 1 credit.
Not offered 2014-2015.
ANCH 093. Directed Reading
Independent work for advanced students under the supervision of an instructor.
Social sciences. 1 credit.

## ANCH 098. Senior Course Study

Independent study taken normally in the spring of senior year by course majors. Students will prepare for a graded oral exam held in the spring with department faculty. The exam will be based on any two-credit unit of study within the major (Honors seminar or course plus attachment), with students submitting their final exam and a paper, which can be revised.
0.5 credit.

## Classical Studies

CLST 013. First-Year Seminar: Mythology This course examines selected myths in such major works of Greek and Latin literature as Homer's Iliad and Odyssey, the tragedies of Aeschylus, Sophocles, and Euripides, Virgil's Aeneid, and Ovid's Metamorphoses. Specific texts
and images are treated both as individual stories and in relation to other texts and images that tell the same mythological tale. Primary texts are supplemented by modern theoretical readings in gender, psychology, and literary theory.
Writing course.
Humanities. 1 credit.
Not offered 2014-2015.
CLST 014. First-Year Seminar: Mystery Religions and the Greek Philosophers
What do ancient mystery religions teach us about spiritual transformation and contact with the divine? What were the secret rites of these religions? How do their mythological themes have universal value? Why are the language and themes of mystery traditions so central to the philosophical thought of Parmenides, Empedocles, and Plato? This seminar will study texts associated with Orphism, Pythagoreanism, the Eleusinian and Dionysian mystery cults, Isis and Osiris, and Presocratic and Platonic philosophy. Readings may include The Homeric Hymn to Demeter; Euripides' Bacchae; fragments of Parmenides and Empedocles; the Derveni Papyrus; Plato's Phaedo, Symposium, and Phaedrus; and Apuleius’ Golden Ass. Topics discussed will include cosmology, mystical knowledge/ascent; philosophical method; allegorical interpretation; immortality of the soul; archetypal figures of mother/daughter and rebirth. Writing course.
Humanities. 1 credit.
Not offered 2014-2015.

## CLST 015. First-Year Seminar: Dante

 With Virgil, Beatrice, and Dante-poet as guides, we shall follow the Pilgrim on a journey of despair, hope, and redemption. We shall read the Divine Comedy in its entirety, teasing out the poem's different levels of meaning and reconstructing Dante's world view in the context of Medieval culture: his thought on life, death, love, art, politics, history and God.Writing course.
Humanities. 1 credit.
Not offered 2014-2015.

## CLST 019. First-Year Seminar: The Birth of

 ComedyThis course investigates the origins of comedy and satire in classical antiquity. In addition to plays by Aristophanes, Plautus, and Terence, and satirical poetry by Archilochus, Hipponax, Horace, and Juvenal, we will also explore the very idea of the "origins of comedy" from diverse perspectives. Questions about what motivates satirists to attack the behavior of their contemporaries and speculation about the quasi-religious roots of mockery have been fertile and contested areas of inquiry for centuries. We will read numerous thinkers (ancient and modern) who have proposed
theories of the origins of comedy, including Aristotle, Freud, Bakhtin, Bergson, and Francis Cornford. And we will also encounter more recent comedians' reflections on their own birth and origins, including performers such as Richard Pryor, Howard Stern, Tina Fey, Louis CK, Sarah Silverman, Jon Stewart, and Lenny Bruce. Writing course.
Humanities. 1 credit.
Fall 2014. Lefkowitz.
CLST 020. Plato and His Modern Readers (Cross-listed as PHIL 020)
Plato's dialogues are complex works that require literary as well as philosophical analysis. While our primary aim will be to develop interpretations of the dialogues themselves, we will also view Plato through the lens of various modern and postmodern interpretations (e.g., Nietzsche, Heidegger, Derrida, Jung, Foucault, Irigaray, Rorty, Lacan, Nussbaum, Vlastos).
Writing course.
Humanities. 1 credit.
Spring 2015. Ledbetter.
CLST 025. Greek Myth in Opera and Ballet Greek myths have provided the subject matter for some of the most important and pivotal works in the history of opera and ballet. Just as Greek myth informs these arts, so too, opera and ballet transform these myths and the way they are viewed by modern audiences. New and daring productions of classical operas continue to transform both Greek mythology and its operatic incarnations. George Balanchine's Neoclassicism modernized ballet radically in the 20th century by drawing largely on Greek myth and classical aesthetic structures. In this course, we will study the relevant primary classical sources for operas and ballets such as Handel's Xerxes, Gluck's Orfeo ed Euridice, Berlioz's Les Troyens, Strauss's Electra, Stravinsky’s Oedipus Rex, Balanchine's Apollo, Agon, and Orpheus. At the same time, we will study the operas and ballets themselves in their cultural context, and in the course of their performance history, paying special attention to recent productions.
Humanities. 1 credit.
Not offered 2014-2015.

## CLST 036. Classical Mythology

What is a myth? How is myth different from fairy tale or fable? What is its connection to ritual and religion? What sets myth apart from history? In this survey of the mythology of Greco-Roman antiquity, we will investigate the diverse meanings of 'myth', its social functions, its origins, its history, and its contemporary relevance. Students will get a broad overview of Classical mythology through direct and close readings of primary sources (all in English translation), including such
texts as Homer's Odyssey, plays by all three of the major Greek tragedians (Aeschylus, Sophocles, and Euripides), and Ovid's Metamorphoses. Our readings of ancient texts will be supplemented by study of ancient art and frequent investigations of modern responses to and theorizing of myth in diverse fields and media, including sociological, psychological, and philosophical treatises; modern poetry; visual arts; and film.
Writing course.
Humanities. 1 credit.
Fall 2014. Lefkowitz.
CLST 040. Visions of Rome
This course provides an overview of cinematic responses to the idea of Rome, ancient and modern, city and empire, place and idea, from the silent era to the present day. We will spend some time comparing films set in Rome to ancient and modern representations of the eternal city in literary and other visual media. But our primary focus will be on the ways in which cinematic visions of Rome reflect evolving cultural, political, and social conditions on both sides of the Atlantic. Specific topics to be explored include the popularity of classical themes in early silent films; Rome on screen during the rise and fall of fascism; neorealism and the shifting landscape of the city; the politics of Hollywood epics; and the dialectic between conceptions of antiquity and modernity as reflected in cinema. Screenings of films by major Italian and Anglophone filmmakers, including Pastrone, DeMille, Rossellini, Visconti, Wyler, Pasolini, Fellini, Virzì, and other major directors. Readings of texts by Petronius, Juvenal, Byron, Hawthorne, Dickens, Freud, Yourcenar, Rohmer, Calvino, and Barthes.
Writing course.
Humanities. 1 credit.
Not offered 2014-2015.

## CLST 060. Dante's Divine Comedy

We shall study the entire work and journey with the Pilgrim through the three realms of the world beyond. Special attention will be devoted to Dante's re-reading of previous texts, from the Latin classics to the burgeoning vernacular literatures of his own time. We shall also attempt to reconstruct Dante's world view in the context of Medieval culture: his thoughts on life, death, love, art, politics, history, his personal story, and God. Humanities. 1 credit.
Not offered 2014-2015.

## CLST 093. Directed Reading

Independent work for advanced students under the supervision of an instructor.
Humanities. 1 credit.

## CLST 098. Senior Course Study

Independent study taken normally in the spring of senior year by course majors. Students will
prepare for a graded oral exam held in the spring with department faculty. The exam will be based on any two-credit unit of study within the major (Honors seminar or course plus attachment), with students submitting their final exam and a paper, which can be revised.
0.5 credit.

## Honors Seminars and Capstone Seminars

CLST 094. Ancient Drama in Performance
What does it mean to study the performance of plays that were composed and staged more than two thousand years ago? How is this approach different from simply reading the texts? Focusing on Greek and Roman tragedy, comedy, and satyr plays (all of which we will read in English translation), we will examine approaches to ancient drama that emphasize its performance, including historical and cultural conditions; the physical realities of ancient theaters; staging conventions; acting and actors; and the various ways in which Greek and Roman plays are continually rediscovered and reinvented through modern performances on stage and screen.
Humanities. 1 credit.
Not offered 2014-2015.

## CLST 104. Classical Studies Seminar:

 Ancient Storytelling and FictionThis course will explore the origins, uses and genres of ancient Greek and Latin narratives in prose. We will be reading (in English translation) different types of fables, specimens of anecdotes, novelle, and myths embedded in the works of Herodotus, Xenophon, Plato, Plutarch and others, as well as the first representatives of the Westsern genre of the novel, such as the works of Petronius, Apuleius, Chariton, and Longus. With the help of narratological theory and parallels with modern narratives, we will especially pay attention to the voice of the narrator, the character of the narratee as inscribed in the text, and the different discourse techniques used for creating a narrative. We will also explore the ways in which a narrative advertises itself as a fiction, a piece of history, or a parable, and learn to recognize a narrative's rhetorical purpose and the more or less covert message it intends to convey.
Humanities. 2 credits.
Spring 2015. Munson.

## GREK 111. Greek Philosophers

This seminar usually focuses on selected literary and philosophical topics in the Presocratics and Plato.
Humanities. 2 credits.
Not offered 2014-2015.

## GREK 112. Greek Epic

This seminar studies either the entirety of Homer's Odyssey in Greek or most of the Iliad.
Humanities. 2 credits.
Not offered 2014-2015.

## GREK 113. Greek Historians

This seminar is devoted to a study of Herodotus and Thucydides, both as examples of Greek historiography and as sources for Greek history. Writing course.
Humanities. 2 credits.
Fall 2014. Munson.

## GREK 114. Greek Drama

This seminar usually focuses on one play by each of the major tragedians-Aeschylus, Sophocles, and Euripides. Other plays are read in translation. The works are placed in their cultural setting and are discussed as both drama and poetry.
Humanities. 2 credits.
Spring 2015. Ledbetter.
GREK 115. Greek Lyric Poetry
This seminar will focus on the development of archaic Greek elegy (Archilochus, Tyrtaeus, Solon, Xenophanes, Semonides, Theognis) monodic lyric (Sappho, Alcaeus, Anacreaon, and Simonides) and choral lyric (Pindar and Bacchylides), paying particular attention to lyric's dialogue with the epic tradition, the so-called rise of the individual, political and performative contexts, and modern interpretive approaches.
Humanities. 2 credits.
Not offered 2014-2015.

## LATN 102. The Roman Emperors

This seminar explores Latin authors of the first and second centuries, with particular attention to their responses to the social and political structures of the period. Expressed attitudes toward the emperors range from adulation to spite, but the seminar concentrates on authors who fall somewhere in between, writing skeptically or subversively. Both prose writers (e.g., Tacitus, Suetonius, and Pliny) and poets (e.g., Lucan, Seneca, and Juvenal) may be included.
Humanities. 2 credits.
Not offered 2014-2015.
LATN 103. Latin Epic
This seminar usually focuses on Vergil's Aeneid, although it may include other major Latin epics.
Humanities. 2 credits.
Not offered 2014-2015.
LATN 104. Ovid's Metamorphoses
This seminar is devoted to the Metamorphoses, which is read against the background of Ovid's Roman and Greek literary predecessors. Writing course.

Humanities. 2 credits.
Not offered 2014-2015.
LATN 105. The Fall of the Roman Republic
This seminar examines Latin texts from the traumatic period of the Late Republic (70-40
B.C.E.). It focuses on the social and political crisis of the period as well as its connections with the artistic and philosophical achievements of the first great period of Latin literature. Authors may include Lucretius, Catullus, Caesar, Cicero, and Sallust.
Humanities. 2 credits.
Not offered 2014-2015.

## LATN 106. Tacitus

The seminar will read extensive excerpts from the Annals of Tacitus, usually including at least one complete book. Additional readings from the Histories and the Agricola may also be included. The principal questions addressed will include: Tacitus’ accuracy and objectivity as a historian, the importance of rhetorical techniques on Tacitus' language and narrative, and the question of his attitude to particular emperors (Augustus,
Tiberius, Claudius, Nero, Vespasian, and Domitian). Above all we will consider the question of Tacitus' ideas about the imperial system of government: to what extent did he think Romans should resist monarchy or tyranny, and to what extent should they adjust their morality to accommodate it?
Humanities. 2 credits.
Not offered 2014-2015.

## LATN 107. Horace

The seminar emphasizes the Odes and Epodes and their place in the tradition of Greek and Roman lyric poetry. Attention is also given to the Satires and Epistles, including the Ars Poetica, and to their importance for the history of satire and literary criticism. An effort is made to grasp the totality of Horace's achievement in the context of the Augustan Age.
Writing course.
Humanities. 2 credits.
Not offered 2014-2015.
LATN 108. Roman Comedy
This seminar is devoted to Plautus and Terence, whose adaptations of Greek plays are among the oldest surviving works of Latin literature. The primary focus will be on close study of the language and structure of the plays, but students will also become familiar with a range of critical and theoretical approaches to comedy. Specific topics to be explored include the production and performance of ancient drama; the Roman appropriation of Greek literary genres; representations of slaves, prostitutes, and other marginal figures on the comic stage; and the

## Classics

influence of Roman Comedy on post-classical European drama.
Humanities. 2 credits.
Not offered 2014-2015.

## LATN 110. Roman Rhetoric

This seminar will focus on Roman rhetoric. We will read speeches delivered in the Roman Senate, before the popular assembly, or before juries. The principal author will be Cicero, but we will also read discussions of rhetorical theory and practice, both ancient and modern. In addition, students will have the opportunity to explore a number of topics related to ancient oratory and rhetoric, including (among others) public performance; theories of persuasion; the relationship between rhetoric and Roman law; Roman (and Greek) education practices; and the enduring influence of ancient rhetoric and oratory in the contemporary world.
Humanities. 2 credits.
Not offered 2014-2015.

| Coordinator: | K. DAVID HARRISON (Linguistics) <br> Anna Everetts (Administrative Assistant) |
| :--- | :--- |
| Committee: | Alan Baker (Philosophy) |
|  | Peter Baumann (Philosophy) <br> Stella Christie (Psychology) <br> Daniel Grodner (Psychology) |
|  | Lisa Meeden (Computer Science) |

${ }^{3}$ Absent on leave, 2014-2015

The Cognitive Science Program has been developed to guide students who are interested in the interdisciplinary study of the mind, brain, and language, with emphases on formal structure, biological information processing, and computation. The program is designed to emphasize guided breadth across various disciplines that contribute to cognitive science as well as depth within a chosen discipline.

## The Academic Program

We conceive of cognitive science as a loose federation of six specific disciplines. The disciplines included are neuroscience, computer science (including computer engineering), linguistics, mathematics and statistics, philosophy, and cognitive psychology. To demonstrate breadth, students majoring or minoring in cognitive science are required to complete credits in at least three of these six disciplines.

## Course Minor

Six credits are required for the minor. One of these is a required introductory course, COGS 001. The remaining 5 credits are to be distributed across three different disciplines of cognitive science.
That is, 2 credits of listed courses, from 3 of the 6 disciplines, must be completed with the exception that in one-and only one-of the three
disciplines, a single "focus course" may be used to meet the breadth requirement. Students who wish to use 2 credits in mathematics and statistics as one of their disciplines for a cognitive science minor must choose 2 credits from a single sub-area of mathematics and indicate its relevance to at least one of the two other disciplines chosen for the minor.
The list of courses currently approved as cognitive science courses is rather selective because it is intended to focus students on the most essential cores of cognitive science within each discipline. For disciplines where there are courses designated as focus courses, at least one focus course must be taken to include that discipline in the minor. Many more courses, taught on campus, are closely relevant to cognitive science. This list is subject to periodic re-evaluation.
In addition to fulfilling the breadth requirements, students must indicate one cognitive science field
in which they have substantial depth of preparation. Such depth can be documented by completion of at least 4 courses from within a cognitive science discipline (even if some of those courses are not directly related to cognitive science). Alternative curricular and extracurricular ways of fulfilling the depth requirement may be discussed with the coordinator.

## Honors Minor

To complete an honors minor in cognitive science, students must complete all requirements listed above. The honors preparation for the minor will normally be a 2 -credit unit approved by the relevant department from courses listed for the minor. The minor preparation must be within a discipline that is not the student's honors major. Students are encouraged to develop an appropriate preparation in consultation with the coordinator.

## Special Major

Typically, the program for a special major in cognitive science involves fulfilling all requirements for the minor and then adding 4 or more cognitive science related courses, bringing the total number of credits up to $10-12$. Note that these additional credits may include courses not listed as eligible for the minor, subject to the approval of the program coordinator. Students who special major in cognitive science are normally required to do a 1-credit senior thesis (COGS 090).

## Honors Special Major

An honors special major in cognitive science is possible. Students must fulfill all requirements for the minor and take four 2-credit honors preparations. One of these preparations is a Senior Honors Thesis (COGS 180). The other three preparations must be distributed across at least two disciplines within cognitive science. The nature of these honors preparations will be determined by the standard practices of the relevant department.

## Thesis / Culminating Exercise

Minors who wish to get formal research experience may choose to complete a 1 -credit thesis or a 2-credit honors thesis in cognitive science during their senior year. Non-honors
theses in cognitive science will normally be examined by Cognitive Science Committee members from within at least two different departments.

## Courses

## COGS 001. Introduction to Cognitive

 ScienceAn introduction to the science of the mind from the perspective of cognitive psychology,
linguistics, neuroscience, philosophy, and artificial intelligence. The course introduces students to the scientific investigation of such questions as the following: What does it mean to think or to have consciousness? Can a computer have a mind?
What does it mean to have a concept? What is
language? What kinds of explanations are necessary to explain cognition?
1 credit.
Fall 2014. Durgin, Sikos.

## COGS 090. Senior Thesis

The one-credit thesis project can be supervised by any of a number of faculty members associated with the departments in the program but should be approved in advance by the program coordinator. A thesis may be used to establish depth in an area and is normally a required component of a special major in cognitive science.
1 credit.
Each semester. Staff.
COGS 092. Independent Study
1 credit.
Each semester. Staff.

## COGS 180. Senior Honors Thesis

2 credits.
Each semester. Staff.

## Computer Science

CPSC 063. Artificial Intelligence (focus course)
CPSC 065. Natural Language Processing
CPSC 068. Bioinformatics
CPSC 072. Computer Vision
CPSC 081. Adaptive Robotics (focus course)
CPSC 082. Mobile Robotics
Linguistics
LING 020. Natural Language Processing
LING 040.Semantics (focus course)
LING 043. Morphology and the Lexicon
LING 045. Phonology (focus course)
LING 050. Syntax (focus course)
LING 105. Phonology (focus course)
LING 106. Morphology and the Lexicon
LING 108. Semantics (focus course)
LING 109. Syntax (focus course)

## Mathematics

The sub-areas of mathematics and their eligible seminars and courses are the following:

## Algebra

MATH 057. Topics in Algebra
MATH 058. Number Theory
MATH 067. Introduction to Modern Algebra
MATH 077. Advanced Topics in Algebra
MATH 102. Modern Algebra II
Analysis
MATH 034. Several-Variable Calculus
MATH 044. Differential Equations
MATH 053. Topics in Analysis
MATH 054. Partial Differential Equations
MATH 063. Introduction to Real Analysis
MATH 073. Advanced Topics in Analysis
MATH 101. Real Analysis II
MATH 103. Complex Analysis
Discrete Mathematics
MATH 029. Discrete Mathematics
MATH 046. Theory of Computation
MATH 059. Topics in Discrete Mathematics
MATH 069. Combinatorics
MATH 079. Advanced Topics in Discrete
Mathematics
Geometry
MATH 055. Topics in Geometry
MATH 075. Advanced Topics in Geometry
MATH 106. Advanced Topics in Geometry
Statistics
STAT 011. Statistical Methods
STAT 031. Data Analysis and Visualization
STAT 061. Probability and Mathematical Statistics
MATH 105. Probability
STAT 111. Mathematical Statistics II
Topology
MATH 104. Topology
Neuroscience
BIOL 022. Neurobiology (focus course)
BIOL 123. Learning and Memory
PSYC 030. Physiological Psychology
PSYC 031. Cognitive Neuroscience (focus course)
PSYC 091. Advanced Topics in Behavioral
Neuroscience
PSYC 130. Physiological Psychology
PSYC 131A. Psychology and Neuroscience
Philosophy
PHIL 012. Logic (focus course)
PHIL 024.Theory of Knowledge
PHIL 026. Language and Meaning

## Cognitive Science

PHIL 031. Advanced Logic (focus course)
PHIL 059. Humans, Animals and Robots
PHIL 086. Philosophy of Mind (focus course)
PHIL 113. Topics in Epistemology
PHIL 116. Language and Meaning
PHIL 118. Philosophy of Mind
Psychology
PSYC 032. Perception (focus course)
PSYC 033. Cognitive Psychology (focus course)
PSYC 034. Psychology of
Language/Psycholinguistics (focus course)
PSYC 039. Developmental Psychology
PSYC 132. Perception, Cognition, and the Embodied Mind
PSYC 134. Psycholinguistics (focus course)

| Coordinator: | Jean-Vincent Blanchard (Modern Languages and Literatures, French) |
| :---: | :---: |
| Committee: | Alan Berkowitz (Modern Languages and Literatures, Chinese) |
|  | Elizabeth Bolton (English Literature) |
|  | Rachel Buurma (English Literature) |
|  | Sibelan Forrester (Modern Languages and Literatures, Russian) |
|  | William O. Gardner (Modern Languages and Literatures, Japanese) |
|  | Maria Luisa Guardiola (Modern Languages and Literatures, Spanish) |
|  | Alexandra Gueydan-Turek (Modern Languages and Literatures, French) |
|  | Haili Kong (Modern Languages and Literatures, Chinese) |
|  | Allen Kuharski (Theater) |
|  | Rosaria V. Munson (Classics) |
|  | Philip M. Weinstein (English Literature) ${ }^{3}$ |
|  | Hansjakob Werlen (Modern Languages and Literatures, German) ${ }^{3}$ |

${ }^{3}$ Absent on leave, 2014-2015.

The Comparative Literature Committee, made up of the coordinator and faculty representing the departments of classics, English literature, modern languages and literatures, and theater, administers the comparative literature major. The basic requirement for the major is work in two literatures in the original language.
The major in comparative literature is designed for those students who have a love for literature and a strong desire to write and are interested in literary critical research. This major assumes a fair degree of discipline, independence, and self-motivation on the part of the student, especially in the development and writing of the thesis.

## The Academic Program

In planning a comparative literature major, students should look at course listings in the classics, English literature, and modern languages and literatures departments. In the classics and modern languages and literatures, only courses in the original language numbered 011 or above are counted as constituents of the comparative literature major. Of English courses numbered ENGL 008A-Z and 009A-Z, only one may be counted toward the major.

## Course Major

Ten credits in two or more literatures in the original languages, including a substantial concentration of work-normally four or five courses-in each of the literatures. The Senior thesis (described in the "Thesis/Culminating Exercise" section, below) does not count toward these 10 credits.
Students working in French, German, Russian, or Spanish may propose one course in translation (or LITR course) as part of their program. Because of the special demands of Arabic, Chinese, and Japanese language and literature, students working in any of those three languages may propose a program based on attachments (in Arabic,

Chinese, and Japanese) to literature courses taught in translation.
A 1- or 2-credit thesis of 35 to 40 pages for one credit, 50-60 pages for two credits, covering work in at least two languages (see "Thesis/Culminating Exercise").
An oral comprehensive examination of 1 hour during the final exam period of the senior year, based on the thesis and courses and seminars that the major comprises.

## Honors Major

Four 2-credit preparations-3 seminars and a 2credit thesis-in at least two literatures in the original language, one of which is a thesis. One of the preparations may be used as an independent minor (in Russian or German studies, for instance) if the minor's departmental requirements have been met. Minors requiring unrelated preparations such as biology or psychology are not allowed. All four honors preparations are necessary components of the comparative literature honors major.
A 3-hour written examination for each preparation, prepared by the external examiner and a 30-minute oral based on the contents of the written examination.

## Honors Minor

Five credits in two literatures in the original language, with a minimum of 2 courses in each of the literatures.
A 2-credit thesis of 50 to 60 pages, integrating preparations that have been done in two literatures in the original language.

## Thesis / Culminating Exercise

All majors and minors will meet with members of the Comparative Literature Committee before the end of the junior year to review and assess the student's program.

At this time, the student will submit a thesis outline to the committee, and will propose faculty advisers from appropriate departments. In some cases, the committee may ask that the thesis be written in whole or in part in the language of a literature studied other than English.
The thesis will be submitted no later than April 30 of the senior year.

## Application Process for the Major and the Minor

Successful completion of an advanced literature course in each of the literatures of the student's program of study is a prerequisite for admission into the Honors Program. A minimum grade of B is required.
Students applying for the (Honors) major will submit to the comparative literature coordinator a proposal of integrated study that sets forth the courses and/or seminars to be taken and the principle of coherence on which the program of study is based. The student will also submit a 6- to 10-page writing sample from a previously completed course. The committee will then review the proposal and the essay to advise the student. In lieu of a traditional course, the Comparative Literature Committee will consider proposals for one or more research papers written as course attachments.

## Sample: Comparative Literature Course Major

The courses and seminars that compose the comparative literature major's formal field of study will naturally differ with each major. To give some sense of the range of possibilities available, a series of sample programs is offered.

## Focus: The Black Atlantic

Courses
ENGL 009S. First-Year Seminar: Black Liberty, Black Literature
ENGL 061. Core Course: Fictions of Black America
ENGL 060. Early African American Print
Cultures, or
ENGL 062. Classic Black Autobiography, or ENGL 063. Contemporary Black Autobiography. FREN 015. Advanced French 2: La France et le monde francophone.
FREN 045. Le Monde francophone
LITR 059FG. Diasporas in cinema
FREN 093. Directed Reading French Cultural and Critical Theory
FREN 111. Représentations post-coloniales
2-credit thesis.

## Sample: Comparative Literature Honors Major

## Focus: Modernism

Courses
ENGL 035. Core Course: The Rise of the Novel
ENGL 053. Core Course: Modern American Poetry
GMST 020. Introduction to German Studies: Topics in German Literature and Culture
GMST 091. Special Topics in German Studies

## Seminars

ENGL 117. Theories and Literatures of Globalization
ENGL 118. Modern Poetry
GMST 111. Medienkultur
2-credit thesis: Kant's influence on Hölderlin and Borges

## Sample: Comparative Literature <br> Honors Minor

## Background Courses

GMST 020. Introduction to German Studies: Topics in German Literature and Culture
GMST 091. Special Topics in German Studies (plus attachment in German)
SPAN 022. Introducción a la literature española
SPAN 108. Jorge Louis Borges
2-credit thesis: Kant's influence on Hölderlin and Borges

LISA MEEDEN, Professor and Chair
TIA NEWHALL, Professor
ANDREW DANNER, Associate Professor
RICHARD WICENTOWSKI, Associate Professor and Associate Provost
JOSHUA BRODY, Assistant Professor
AMEET SONI, Assistant Professor
KEVIN WEBB, Assistant Professor
ADAM LAMMERT, Visiting Assistant Professor
JASON WATERMAN, Visiting Assistant Professor
JEFFREY KNERR, System Administrator and Visiting Instructor
BRIDGET M. ROTHERA, Administrative Assistant

Computer science is the study of algorithms and their implementation. This includes the study of computer systems; methods to specify algorithms (for people and computer systems); and the formulation of theories and models to aid in the understanding and analysis of the properties of algorithms, computing systems, and their interrelationship.
The computer science curriculum is designed to provide students with a flexible set of computing choices that can be tailored to satisfy various interests and depths of study. All courses emphasize the fundamental concepts of computer science, treating today's languages and systems as current examples of the underlying concepts. The computer science laboratory provides up-to-date software and hardware facilities.

## The Academic Program

The Computer Science Department offers course majors and minors and honors majors and minors. Students interested in any of these options are encouraged to meet with the chair of the Computer Science Department as early as possible in their college career. Students who are interested in a computer science major or minor are encouraged to take CPSC 021, CPSC 031 and CPSC 035 sometime in their first four semesters at Swarthmore. The minor in computer science is designed for students who desire a coherent introduction to the core topics in the field. Students completing the minor will possess intellectual skills that are useful in many disciplines.

## First course recommendations

CPSC 021: Introduction to Computer Science presents fundamental ideas in computer science while building skill in software development. No previous experience with computers is necessary. This course is appropriate for all students who want to write programs. It is the usual first course for computer science majors and minors. Students with Advanced Placement credit or extensive programming experience may be able to place out of this course.
CPSC 031: Introduction to Computer Systems assumes that the student has completed CPSC 021 or its equivalent. It is the best entry point for
students intending to be Computer Science majors or minors who already have extensive computing experience.
CPSC 035: Data Structures and Algorithms assumes that the student has completed CPSC 021 or its equivalent. It is an appropriate entry point for students with extensive computing experience. Students who think they may qualify for CPSC 031 or CPSC 035 and have not taken CPSC 021 should see the instructor or department chair. Students or advisers who want more advice on placement in computer science courses should feel free to contact any computer science faculty member by phone or in person.

## Interdisciplinary recommendations

The department recommends that students with an interest in computer science should consider using MATH 027 (Linear Algebra) and/or MATH 029 (Discrete Math) to satisfy the math requirement for the major and minor. Statistics courses at the level of STAT 031 (Data Analysis and Visualization) or above can also be used to satisfy the math requirement.
The Computer Science department offers three courses approved as cognitive science courses: CPSC 063 (Artificial Intelligence), CPSC 065 (Natural Language Processing) and CPSC 081 (Adaptive Robotics). Students with an interest in Cognitive Science are encouraged to consider COGS 001 (Introduction to Cognitive Science). In addition to courses offered by computer science faculty, the department recommends that students with an interest in computer engineering consider courses offered by the Engineering department, including three courses that are cross-listed by the Computer Science department: CPSC 052 (Computer Architecture), CPSC 072 (Computer Vision) and CPSC 082 (Mobile Robotics).

## Course Major

The following are the requirements for a major in computer science:

1. Nine courses in computer science:
a. CPSC 021. (If exempted from CPSC 021 without AP credit, substitute one course from any Group listed below.)
b. CPSC 031, CPSC 035 and CPSC 097.
c. One course from each of the following three groups:
i. Group 1: CPSC 041 or CPSC 046.
ii. Group 2: CPSC 043, CPSC 044, CPSC 045, or CPSC 087.
iii. Group 3:CPSC 040, CPSC 063, CPSC 065, CPSC 068, CPSC 071 or CPSC 081
d. Two CPSC courses numbered above CPSC 035 (must be different than the choices in part c). 2. Two MATH/STAT courses at the level of Linear Algebra or above (Discrete Math and Linear Algebra are recommended).
To be eligible for a computer science major, a student must have at least a B- average in the introductory courses (CPSC 021, CPSC 31 and CPSC 035). In addition, students must have at least a C in CPSC 031 and CPSC 035 to be eligible to take upper-level computer science courses. Students who have not met this criterion may re-take CPSC 031 or CPSC 035 to obtain the necessary foundation for success in upper-level courses. Students who are deferred have one year from the date of their application to satisfy these requirements.

## Course Minor

The minor in computer science provides students with a well-rounded background in computer science sufficient to develop significant, creative applications and to keep up with the rapid changes in the field.
The following are the requirements for a minor in computer science:

1. Six courses in computer science.
a. CPSC 021. (If exempted from CPSC 021 without AP credit, substitute one course from any Group listed below.)
b. CPSC 031.
c. CPSC 035.
d. Two upper-level courses drawn from different groups:
i. Group 1: CPSC 041 or CPSC 046.
ii. Group 2: CPSC 043, CPSC 044, CPSC 045, or CPSC 087.
iii. Group 3: CPSC 040, CPSC 063, CPSC 065, CPSC 068, CPSC 071 or CPSC 081
e. One CPSC course numbered above CPSC 035 (must be different than the choices in part c).
2. One MATH/STAT course at the level of Linear Algebra or above (Discrete Math recommended).
The requirements for acceptance into the minor are the same as for acceptance into the major.

## Honors Major

An honors major in computer science will consist of completion of the course major, two 2-credit preparations, one 2-credit research report or thesis.

The following will be submitted to external examiners for evaluation:

Two 2-credit preparations to be selected from the combinations of courses listed under Approved Preparations. Each of these 2-credit preparations will be examined by a 3-hour written examination and an oral examination.
The two 2-credit preparations must include four distinct courses. In certain circumstances, the Computer Science Department may be willing to consider other groupings of courses, seminars, or courses with attachments. If the required courses and preparations would not satisfy a course major, additional computer science courses must be taken to meet course major requirements. In all cases, the Computer Science Department must approve the student's plan of study.

One research report or thesis to be read by an external examiner and examined in an oral examination.
At a minimum, this will involve a review of scholarly papers from the primary literature of computer science and the writing of a scholarly, scientific paper. The paper will report on a research experience involving the student and faculty (here or elsewhere). It is expected that most of the research or scholarly groundwork will be completed before the fall semester of the senior year, either by 1 credit of work in the spring semester of the junior year or full-time summer work. Students will register for at least 1 credit of thesis work to complete the work and write the paper in the fall of the senior year. It is recommended that the paper be completed by the end of the fall semester.

## Acceptance Criteria

To be eligible for an honors major in computer science, students must complete the following:

1. Have a B+ average in all computer science courses completed by the end of junior year. These must include CPSC 021, CPSC 031 and CPSC 035 , and at least one of, CPSC 041 or CPSC 046. 2. Have demonstrated proficiency in mathematical argument and reasoning by the end of the junior year. Ordinarily, this proficiency will be assumed if the student has done one of the following:
a. Completed Discrete Mathematics and Linear Algebra with a grade of B+ or better
b. Completed Linear Algebra Honors with a grade of B or better
c. Completed Introduction to Real Analysis or Introduction to Modern Algebra with a grade of Bor better
2. Completed by the end of the senior year a set of courses that would qualify for an ordinary computer science major as well as CPSC 180 (Thesis).

## Honors Minor

An honors minor in computer science will consist of completion of the course minor and one 2 -credit preparation.
The following will be submitted to external examiners for evaluation:

One 2-credit preparation to be selected from the combinations of courses listed under Approved
Preparations. This 2-credit preparation will be examined by a 3 -hour written examination and an oral examination.

The 2-credit preparation must include two distinct courses. In certain circumstances, the Computer Science Department may be willing to consider other groupings of courses, seminars, or courses with attachments. If the required courses and preparations would not satisfy a course minor,
additional computer science courses must be taken to meet course minor requirements. In all cases, the Computer Science Department must approve the student's plan of study.

## Acceptance Criteria

To be eligible for an honors minor in computer science, a student must satisfy course requirements for a regular minor in computer science and in addition:

1. Have a B+ average in all computer science courses completed by the end of the junior year.
2. Take one 2-credit preparation to be selected from the combinations of courses listed under Approved Preparations. An examiner will set both a 3-hour written examination and an oral examination for the preparation.

## Approved Preparations for the Honors Major and Minor

The following are the approved preparations. These may not all be available to all students because of the faculty's schedules.

| Preparation | Course Combinations |
| :--- | :--- |
| Algorithms and Theory | CPSC 041. Algorithms <br> CPSC 046. Theory of Computation |
| Bioinformatics | CPSC 063. Artificial Intelligence <br> CPSC 068. Bioinformatics |
| Data Systems | CPSC 044. Database Systems <br> CPSC 045. Operating Systems |
| Distributed Computing | CPSC 043. Computer Networks <br> CPSC 087. Parallel and Distributed Computing |
| High-performance Computing | CPSC 040. Computer Graphics <br> CPSC 087. Parallel and Distributed Computing |
| Intelligent Systems | CPSC 063. Artificial Intelligence <br> CPSC 081. Adaptive Robotics |
| Parallel and Distributed Systems | CPSC 045. Operating Systems <br> CPSC 087. Parallel and Distributed Computing |
| Natural Language Models | CPSC 063. Artificial Intelligence <br> CPSC 065. Natural Language Processing |
| Network Systems | CPSC 043. Computer Networks <br> CPSC 045. Operating Systems |
| Parallel Systems and Algorithms | CPSC 041. Algorithms <br> CPSC 087. Parallel and Distributed Computing |
| Statistical Machine Learning | CPSC 065. Natural Language Processing <br> CPSC 068. Bioinformatics |

## Thesis / Culminating Exercise

Senior Conference is the comprehensive requirement for computer science course and honors majors. It provides an opportunity to delve more deeply into a particular topic in computer science, synthesizing material from previous courses.

## Application Process and Acceptance Criteria for Majors/Minors

In addition to the process described by the Dean's Office and the Registrar's Office for how to apply for a major, we also ask that students complete a departmental form outlining how they intend to fulfill the requirements for their intended major, minor, honors major or honors minor. Successful completion of at least two computer science
courses including CPSC 031 or CPSC 035 is ordinarily required to be admitted as a computer science major or minor. If after applying a student is deferred, he or she will be re-evaluated upon completion of additional computer science courses.

## Advanced Placement

Students who receive a 4 or 5 on the computer science Advanced Placement exam will be awarded one credit upon successful completion of one computer science course taken at Swarthmore Students must notify the department after completion of one computer science course in order to receive AP credit. Students should consult with any computer science faculty member about placement. Students who are placed out of CPSC 021 with AP credit need to take only 8 additional courses in computer science to complete the major, and 5 additional courses in computer science to complete the minor.

## Off-Campus Study

Students planning to major or minor in computer science may opt to study abroad for one semester or a whole year. Because some advanced courses in computer science are offered in only alternate years, some selections will be unavailable to some students. The chair of the Computer Science
Department should preapprove all courses of study abroad in advance of the student's departure. The department will credit appropriate courses based on sufficient evidence of work completed presented by the student upon returning to Swarthmore.

## Life After Swarthmore

## Graduate School

Students interested in graduate study in computer science will be well prepared with a computer science major. Some graduate programs will also accept students who have majored in mathematics or engineering and completed a sufficient number and selection of computer science courses. The choice of the appropriate major and computing courses will depend on the student's interests and should be made in consultation with the chair of the Computer Science Department. Other majors are also reasonable for students with special interests. For example, a major in linguistics or psychology might be appropriate for a student interested in artificial intelligence or cognitive science. In such cases, students should consult with the chair of the department as early as possible to ensure that they take the necessary mathematics and computing courses for graduate work in computer science.

## Courses

## CPSC 021. Introduction to Computer

## Science

This course presents fundamental ideas in computer science while building skills in software development. Students implement algorithms as programs in a high-level programming language. Introducing object-oriented programming and data structures allows students to construct correct, understandable, and efficient algorithms. CPSC 031 and CPSC 035 present a deeper coverage of these topics. CPSC 021 is appropriate for all students who want to be able to write programs. It is the usual first course for computer science majors and minors. Students with Advanced Placement credit or extensive programming experience may be able to place out of this course. Students who think that they may fall into this latter category should consult with any computer science faculty member.
Lab work required, programming intensive. No prerequisites.
Natural sciences and engineering practicum. 1 credit.
Each semester. Staff.

## CPSC 031. Introduction to Computer

## Systems

This course is a broad introduction to computer science that focuses on how a computer works and how programs run on computers. We examine the hardware and software components required to go from a program expressed in a high-level programming language like C or Python to the computer actually running the program. This course takes a bottom-up approach to discovering how a computer works. Topics include theoretical models of computation, data representation, machine organization, assembly and machine code, memory, I/O, the stack, the operating system, compilers and interpreters, processes and threads, and synchronization. This course also introduces parallel and distributed computing with a specific focus on shared memory parallelism for multicore and SMP systems.
Prerequisites: CPSC 021 or equivalent.
Lab work required.
Natural sciences and engineering practicum. 1 credit.
Each semester. Staff.
CPSC 035. Data Structures and Algorithms
This course completes the broad introduction to computer science begun in CPSC 021. It provides a general background for further study in the field. Topics to be covered include object-oriented programming in C++, advanced data structures (trees, priority queues, hash tables, graphs, etc.) and algorithms, and software design and verification. Students will be expected to complete
several programming projects illustrating the concepts presented
Prerequisite: CPSC 021 or equivalent. Discrete Mathematics is recommended.
Lab work required.
Natural sciences and engineering practicum. 1 credit.
Each semester. Staff.

## CPSC 040. Computer Graphics

(Cross-listed as ENGR 026)
Computer graphics focuses on the creation and manipulation of digital imagery. We cover the modeling, rendering, and animating of geometric object in two (2D) and three (3D) dimensions. Topics include drawing algorithms for 2D geometric primitives (points, lines, polygons), geometric matrix transformations, projective geometry, geometric object representations, hidden surface removal, hierarchical modeling, shading, lighting, shadows, ray-tracing, procedural (non-geometric) modeling, texture mapping, and animation. Labs will explore various tools for rendering graphics, including pixel buffers, OpenGL, shading languages, and general purpose GPU computing.
Prerequisites: CPSC 031, CPSC 035 and Linear Algebra required or permission of the instructor. (Linear Algebra may be taken concurrently.) Lab work required.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Danner.

## CPSC 041. Algorithms

The study of algorithms is useful in many diverse areas. As algorithms are studied, considerable attention is devoted to analyzing formally their time and space requirements and proving their correctness. Topics covered include abstract data types, trees (including balanced trees), graphs, searching, sorting, NP complete optimization problems, and the impact of several models of parallel computation on the design of algorithms and data structures.
Prerequisites: CPSC 035 required. Mathematics background at the level of Linear Algebra or higher is required (may be taken concurrently).
Lab work required.
1 credit.
Spring 2015. Brody.

## CPSC 043. Computer Networks

This course covers the design, implementation and applications of computer networks, primarily focused on the protocols that enable the Internet and network applications. Additionally, this course will cover network security, such as viruses, worms, and botnets. Topics will include: data communication theory; packet-switched routing;
the Internet and its protocols; socket and network application programming; overlays and P2P networks; and network security.
Prerequisites: CPSC 031 and CPSC 035 required. Lab work required.
1 credit.
Fall 2015. Webb.

## CPSC 044. Database Systems

This course provides an introduction to relational database management systems. Topics covered include data models (ER and relational model); data storage and access methods (files, indices); query languages (SQL, relational algebra, relational calculus, QBE); query evaluation; query optimization; transaction management; concurrency control; crash recovery; and some advanced topics (distributed databases, objectrelational databases). A project that involves implementing and testing components of a relational database management system is a large component of the course.
Prerequisites: CPSC 031 and CPSC 035 required.
Lab work required.
1 credit.
Spring 2015. Soni.

## CPSC 045. Operating Systems

(Cross-listed as ENGR 022)
This course is an introduction to the theory, design, and implementation of operating systems. An operating system is the software layer between user programs and the computer hardware. It provides abstractions of the underlying hardware that are easier to program, and it manages the machine's resources. The following topics will be covered: processes (including synchronization, communication, and scheduling); memory (main memory allocation strategies, virtual memory, and page replacement policies); file systems (including naming and implementation issues); I/O (including devices, drivers, disks, and disk scheduling); and security.
Prerequisites: CPSC 031 and CPSC 035 required.
Lab work required.
Natural sciences and engineering practicum.
1 credit.
Next offered when staffing permits.
CPSC 046. Theory of Computation
(Cross-listed as MATH 046)
This study of various models of computation leads to a characterization of the kinds of problems that can and cannot be solved by a computer. Solvable problems will be classified with respect to their degree of difficulty. Topics to be covered include formal languages and finite state devices; Turing machines; and other models of computation, computability, and complexity.

Prerequisite: CPSC 035 required. Mathematics background at the level of Linear Algebra or higher is required (may be taken concurrently)
Lab work required.
1 credit.
Fall 2015. Staff.

## CPSC 052. Principles of Computer

 Architecture(See ENGR 025)
Natural sciences and engineering practicum. 1 credit.
Next offered when staffing permits.

## CPSC 063. Artificial Intelligence

Artificial intelligence (AI) can be defined as the branch of computer science that is concerned with the automation of intelligent behavior. Intelligent behavior encompasses a wide range of abilities; as a result, AI has become a very broad field that includes game playing, automated reasoning, expert systems, natural language processing, modeling human performance (cognitive science), planning, and robotics. This course will focus on a subset of these topics and specifically on machine learning, which is concerned with the problem of how to create programs that automatically improve with experience. Machine learning approaches studied typically include neural networks, decision trees, genetic algorithms, and reinforcement techniques.
Prerequisites: CPSC 035 required.
Lab work required.
Natural sciences and engineering practicum.
Eligible for COGS credit.
1 credit.
Spring 2015. Meeden.

## CPSC 065. Natural Language Processing

(Cross-listed as LING 020)
This course is an introduction to the fundamental concepts in natural language processing, the study of human language from a computational perspective. The focus will be on creating statistical algorithms used in the analysis and production of language. Topics to be covered include parsing, morphological analysis, text classification, speech recognition, and machine translation. No prior linguistics experience is necessary.
Prerequisite: CPSC 035 required.
Lab work required.
Eligible for COGS credit.
1 credit.
Next offered when staffing permits.

## CPSC 068. Bioinformatics

(Cross-listed as BIOL 068)
This course is an introduction to the fields of bioinformatics and computational biology, with a central focus on algorithms and their application to a diverse set of computational problems in molecular biology. Computational themes will include dynamic programming, greedy algorithms, supervised learning and classification, data clustering, trees, graphical models, data management, and structured data representation. Applications will include genetic sequence analysis, pairwise-sequence alignment, phylogenetic trees, motif finding, gene-expression analysis, and protein-structure prediction. No prior biology experience is necessary.
Prerequisite: CPSC 035 required.
Lab work required.
1 credit.
Fall 2014. Soni.

## CPSC 071. Software Engineering: iOS

 DevelopmentThis course is an introduction to software engineering, with a focus on iOS development. iOS is the name of the operating system that runs on many of Apple's products including the iPhone, iPod Touch, and iPad. In this course, students will learn how to write iOS apps in Objective C using Apple’s Xcode IDE (integrated development environment). Topics will also include readings on user interface design, project implementation and unit testing. Students do not need to own an iOS device to take the course.
Prerequisite: CPSC 035 required.
Lab work required.
1 credit.
Next offered when staffing permits.

## CPSC 072. Computer Vision

(See ENGR 027)
Natural sciences and engineering practicum.
1 credit.
Spring 2015. Zucker.

## CPSC 081. Adaptive Robotics

This seminar addresses the problem of controlling robots that will operate in dynamic, unpredictable environments. In laboratory sessions, students will work in groups to program robots to perform a variety of tasks such as navigation to a goal, obstacle avoidance, and vision-based tracking. In discussion sessions, students will examine the major paradigms of robot control through readings from the primary literature with an emphasis on adaptive approaches.
Prerequisite: CPSC 035 required. CPSC 063 is recommended.
Lab work required.
Natural sciences and engineering practicum.

## Computer Science

Eligible for COGS credit.
1 credit.
Next offered when staffing permits.

## CPSC 082. Mobile Robotics

(See ENGR 028)
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Zucker.

## CPSC 087. Parallel and Distributed

Computing
This course covers a broad range of topics related to parallel and distributed computing, including parallel and distributed architectures and systems, parallel and distributed programming paradigms, parallel algorithms, and scientific and other applications of parallel and distributed computing. In lecture/discussion sections, students examine both classic results as well as recent research in the field. The lab portion of the course includes programming projects using different programming paradigms, and students will have the opportunity to examine one course topic in depth through an open-ended project of their own choosing. Course topics may include: multi-core, SMP, MPP, client-server, clusters, clouds, grids, peer-to-peer systems, GPU computing, scheduling, scalability, resource discovery and allocation, fault tolerance, security, parallel I/0, sockets, threads, message passing, MPI, RPC, distributed shared memory, data parallel languages, MapReduce, parallel debugging, and parallel and distributed applications
Prerequisites: CPSC 031 and CPSC 035 required. CPSC 045 is recommended.
Lab work required.
1 credit.
Spring 2016. Newhall.

## CPSC 091. Special Topics in Computer

## Science

Subject matter for CPSC 091 is generally
dependent on group need or individual interest.
The course is normally restricted to upper-level students and offered only when interest and staff availability make it practicable to do so.
Lab work required.
1 credit.
Staff.

## CPSC 093. Directed Reading and/or <br> \section*{Research Project}

A qualified student may undertake a program of extra reading and/or a project in an area of computer science with the permission of a staff member who is willing to supervise.

## CPSC 097. Senior Conference

This course provides honors and course majors an opportunity to delve more deeply into a particular
topic in computer science, synthesizing material from previous courses. Topics have included dynamic analysis (2013, sensing for healthcare (2012), data management systems (2010, 2011), computer perception (2008, 2009), computational geometry and geographic information systems (2006, 2007), computer security (2005), natural language processing (2004); advanced algorithms (2003); networking (2001, 2002); distributed computing (2000); evolutionary computation (1998 and 1999); complexity, encryption, and compression (1996); and parallel processing (1995). CPSC 097 is the usual method used to satisfy the comprehensive requirement for a computer science major and the senior honors study requirement for a computer science honors major.
Lab work required.
Writing course.
1 credit.
Fall 2014. Waterman.
CPSC 180. Thesis
CPSC 199. Senior Honors Study

AMANDA BAYER, Professor
JOHN P. CASKEY, Professor
STEPHEN S. GOLUB, Professor ${ }^{1}$
ROBINSON G. HOLLISTER, Professor ${ }^{6}$
PHILIP N. JEFFERSON, Professor
MARK KUPERBERG, Professor
ELLEN B. MAGENHEIM, Professor and Chair
STEPHEN A. O'CONNELL, Professor ${ }^{1}$
ERIN TODD BRONCHETTI, Assistant Professor ${ }^{3}$
JENNIFER PECK, Assistant Professor
TAO WANG, Assistant Professor
EDWARD STEINBERG, Visiting Assistant Professor
JOSEPH HARGADON, Visiting Professor (part time)
NANCY CARROLL, Administrative Assistant
${ }^{1}$ Absent on leave, fall 2014.
${ }^{3}$ Absent on leave, 2014-2015.
${ }^{6}$ Spring 2015.

## The Academic Program

The economics curriculum is structured so that students achieve the following goals:

1. Learn and apply models and tools for analyzing economic processes, decisions, and institutions;
2. Analyze and evaluate public policy; and
3. Think critically about the outcomes of public and private economic institutions and systems domestically and globally.
The Economics Department offers a course major, honors major, and honors minor. A course minor is not offered.

## Course Major

## Requirements

ECON 001 or its equivalent is a prerequisite for all other work in the department. In addition, all majors in economics must satisfy a theory requirement by taking ECON 011 (Intermediate Microeconomics) and ECON 021 (Intermediate Macroeconomics). They must also satisfy a statistics requirement. The statistics requirement is typically satisfied by taking ECON 031. It can alternatively be satisfied, however, by taking ECON 035 (which requires either ECON 031 or STAT 061 as prerequisite), by taking STAT 111 (which requires STAT 061), or by taking STAT 061 in combination with either STAT 011 or STAT 031. STAT 011 and STAT 031 alone are not sufficient.
In order to read the literature in economics critically, a knowledge of elementary calculus is extremely useful. Students need to take MATH 015 (or receive MATH 015 credit or placement out of MATH 015 from the Mathematics Department) prior to taking ECON 011 or ECON 021. Since ECON 011 and ECON 021 are required for the economics major, MATH 015 is a requirement for the major. Students can take

ECON 001, ECON 031, and other courses that do not have ECON 011 or ECON 021 as a prerequisite before they meet the MATH 015 requirement. Students can find further information regarding math placement and credit at: www.swarthmore.edu/NatSci/math_stat/ap_pi. html.
In addition, the department very strongly recommends that students take either MATH 025 or 026 (Basic Calculus). MATH 027 (Linear Algebra), MATH 034 (Several Variable Calculus), and MATH 044 (Differential Equations) are valuable for those intending to focus on the more technical aspects of economics. Students planning to attend graduate school in economics should give serious thought to taking additional mathematics courses, including MATH 063 (Introduction to Real Analysis).
To graduate as a course major, a student must:

1. Have at least eight credits in economics.
2. Meet the theory and statistics requirements. Note: Course students should take these courses before the second semester of their senior year to be prepared for the comprehensive examination. Note also that some seminars and courses have ECON 011, 021, and/or 031 as prerequisites.
3. In the senior year, pass the comprehensive examination given early in the spring semester.

## Comprehensive Examination

Course majors must pass the Comprehensive
Examination which is given in January or February of each year and covers the theory and statistics requirements. The exam is given only once a year and students must take it at Swarthmore College. All students will take the examination in their senior year. The only exception is for students who are graduating early; those students can take the comprehensive exam in the spring semester prior to their final semester at Swarthmore.

Acceptance Criteria: The Course Program Except for students who have been granted advanced standing, applicants should have:

1. Completed at least two economics courses at Swarthmore.
2. Have an overall grade average of C or better.
3. Have a grade of $B$ or better in at least one economics course taken at Swarthmore.
4. Should not have any D's or NC's in any economics course. These conditions include the grade equivalent(s) for any course(s) taken Credit/No Credit. [Note: Regarding the "grade of B or better" requirement, a B in a course taken elsewhere may not suffice. Students who expect to satisfy the requirement with course work done at other schools should consult the chair about grade equivalencies ahead of time. For example, an A- is typically required in the case of a course taken in summer school.]
Students have one year from the date of their application to satisfy these requirements. Failure to do so within one year will mean rejection.
Students who wish to apply for a double major must submit a copy of their Sophomore Plan to both departments.

## Honors Major

Typically, a student who wants to major in the Honors Program first applies for the program through the Sophomore Plan. In the Sophomore Plan, the student should indicate the intention to apply for the Honors Program and should list all preparations that the student plans to take as part of that program. The student would usually take at least one preparation in the junior year. Approval of a student's Honors Program must be granted by the department. Changes of major and/or honors status can be made at any time by picking up forms and instructions in the Registrar's Office.

## The Honors Exam for Majors and Preparations

Honors majors in economics must complete 3 preparations. All preparations in economics consist of 2 credits. Most preparations involve taking a 2 credit seminar, but some preparations may combine a course and a 1 credit seminar. A complete list of preparations, with their prerequisites, appears below.

## Culminating Exercise

External examiners will determine a student's Honors performance in an individual preparation based on a 3 hour written exam, an oral exam, and if applicable, a seminar paper. (Honors majors do not take the comprehensive exam given to course majors.)

Acceptance Criteria: The Honors Program
Applicants for an honors major should have satisfied all of the requirements for acceptance as an economics course major and, in addition, should have a straight B or better grade average in economics courses. This condition includes the grade equivalent(s) for any course(s) taken credit/no credit.

## Honors Minor

## Requirements

Applicants for an honors minor should have satisfied all of the requirements for acceptance as an economics course major and, in addition, should have a straight B or better grade average in economics courses. This condition includes the grade equivalent(s) for any course(s) taken Credit/No Credit. While minors are not required to complete a specific number of economics courses, they must satisfy all the prerequisites for their honors preparation.

## Culminating Exercise

External examiners will determine a student's honors performance in an individual preparation based on a 3 hour written exam, an oral exam, and if applicable, a seminar paper. (Honors minors do not take the comprehensive exam given to course majors.)
Acceptance Criteria: The Honors Minor
Applicants for an honors minor should have satisfied all of the requirements for acceptance as an economics course major and, in addition, should have a straight B or better grade average in economics courses. This condition includes the grade equivalent(s) for any course(s) taken credit/no credit.

## Application Process Notes for the Major

Normally, any student planning to major in economics, whether in the Course or Honors Program, applies for the major by submitting a Sophomore Plan in the spring of the Sophomore year. (Except for students who have been granted advanced standing, applicants should have completed at least two economics courses at Swarthmore.) A student who will be away that semester should submit the paper before leaving at the end of the fall semester. In the Sophomore Plan, students should state their reasons for wanting to major in economics along with any associated considerations, and they should indicate the courses and seminars essential to their plan of study. Through the paper, students are preregistered for seminars offered over the following two years; thus, students are strongly urged to select their seminars carefully. Moreover, if a student decides to change seminars, the department's administrative assistant should be
informed as soon as possible, since entry into oversubscribed seminars is first-come, first-served, with seniors in the Honors Program having absolute priority.

## Honors Preparations

ECON 101: Advanced Microeconomics (2 credits) Prerequisites: ECON 011 and multivariable calculus (MATH 033, 034, or 035).
Enrollment is restricted to juniors and seniors.
ECON 102: Advanced Macroeconomics (2 credits)

Prerequisites: ECON 011 and ECON 021, and multivariable calculus: MATH 033, 034, or 035 (or MATH 025 or 026 with permission of the instructor).
Recommended: MATH 043 or 044.
ECON 122: Financial Economics (2 credits)
Prerequisites: ECON 011, ECON 031 or ECON
035, and MATH 025 or higher calculus.
ECON 135: Advanced Econometrics (1 credit) and
ECON 035: Econometrics (1 credit)
Prerequisites: ECON 035 and linear algebra (Math 027, 028, or 028S).
ECON 141: Public Economics (2 credits)
Prerequisite: ECON 011 and ECON 031 (or its equivalent).
ECON 151: International Economics (2 credits) Prerequisites: ECON 011 and ECON 021.
ECON 171: Labor and Social Economics (2 credits)

Recommended: ECON 011.
ECON 181: Economic Development (2 credits)
Prerequisites: ECON 011, ECON 021, and either ECON 031, STAT 011, or STAT 031.

## Interdisciplinary Majors and Minors including Economics

Certain economics courses can be counted toward programs in black studies, Asian studies, environmental studies, Latin American studies, peace and conflict studies, public policy, and gender and sexuality studies.

## Advanced Placement/International Baccalaureate Credit

Economics before Swarthmore: The Economics Department offers a one-semester Introduction to Economics course (ECON 001) that is the prerequisite for all further study in economics.
The department does not give credit for work done in economics in secondary schools and it does not give credit for Advanced Placement exams. All students planning to study economics are required to begin with ECON 001 unless granted a waiver by the department. To receive a waiver, students must have a score of 5 on both the

Microeconomics and Macroeconomics AP exams (or a 6 or 7 on the Economics Higher Level Exam of the International Baccalaureate, or an A on the British A Levels). This waiver does not count as a course credit. Students who receive the waiver cannot enroll in ECON 011 or 021 before taking at least one other economics course.
Work done at a college or university while attending secondary school is eligible for credit subject to the chairperson's normal discretion in giving credit for such work, but only if the work is credited on an official college or university transcript. With respect to satisfying the prerequisite requirements for other economics courses: either semester of a two-semester introductory course alone counts as the equivalent of ECON 001 but if only one of two introductory semesters is taken, the material covered in the other half must be accessed by auditing (subject to the instructor's approval) the relevant parts of ECON 001 or by taking the appropriate intermediate theory course (ECON 011 or ECON 021).

## Transfer Credit

Transferring economics credits: Students must consult the department chair before taking a nonSwarthmore course for credit. In turn, when formally requesting a credit transfer, students should always bring evidence-syllabus, papers, and examinations-concerning the content of the course. Problems transferring credit typically arise in connection with courses offered in programs abroad that are labeled as economics though they are in fact courses in law, history, or political science; the department does not accept such credits as being within the domain of economics. It is usually sufficient for partial credit transfer if the course is taught by a qualified economist and is largely analytical in content, as are nearly all courses in economics departments in American colleges and universities.
Transferring credit for introductory economics: Subject to the department's approval, students may transfer credit for introductory economics taken at other colleges or universities, whether taken in the context of a one or a two semester introductory course.

## Transferring credits for business courses:

 Students can only apply one course in Accounting toward their 8 course requirement in economics. Business courses taken at the University of Pennsylvania or other universities beyond this cannot be counted toward the eight courses required for an economics major. They can be included as part of the 32 courses required for graduation. Students, however, can receive credit for no more than two such courses. The only exception to this rule is for students who take the equivalent of ECON 033 (Financial Accounting) at another school; the course is not counted againstthe two allowed business credits, and can be counted as part of the 8 credits needed for the economics major. No credit is given for night school classes at Wharton.

## Teacher Certification

For economics majors, the College offers teacher certification in social studies or citizenship through a program approved by the state of Pennsylvania. For further information about specific requirements for Economics students, please refer to the Educational Studies section of the Bulletin.

## Additional Matters

Recommended course sequence: Take ECON 001 in the first year. Take ECON 011, 021, and 031 in the sophomore and junior years and certainly before the beginning of the senior year. For students contemplating graduate study in economics, take one or more of: ECON 101, ECON 102, and ECON 135, as well as the Mathematics and Statistics courses discussed at the beginning of this document.
Ranking for entry into seminars: Entry into oversubscribed seminars is first-come, first-served for students in the Honors Program, with priority given to seniors, then to juniors. Any places remaining are allocated on the basis of first-come, first-served for students in the Course Program.
Double major in Economics and Engineering: Double majors may count Operations Research (cross-listed as ECON 032 and ENGR 057) for both majors. It will appear as ENGR 057 on the student's transcript if it is taken to satisfy engineering or both requirements.
Semester or year away: The Economics Department will facilitate study abroad or elsewhere in the United States. Correspondingly, it has designed a major that can, without difficulty, be completed in no more than four semesters. Moreover, the department is quite liberal in approving transfer credits for courses offered by economics departments elsewhere. Students should, however, be aware of the following considerations: to graduate with an economics major from Swarthmore, a student must have taken at least two economics courses at Swarthmore and must pass the department's comprehensive exam.

## Courses

## ECON 001. Introduction to Economics

Covers the fundamentals of microeconomics and macroeconomics: supply and demand, market structures, income distribution, fiscal and monetary policy in relation to unemployment and inflation, economic growth, and international economic relations. Focuses on the functioning of markets as well as on the rationale for and the
design of public policy. Prerequisite for all further work in economics.
1 credit.
Each semester. Staff.

## ECON 002. First-Year Seminar: Greed

In 1776, Adam Smith wrote in The Wealth of Nations, "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest...The individual intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always worse for society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it." This seminar investigates the degree to which self-interest should be the organizing principle of economic and social organization.
This course counts as 1 of the 8 economics credits needed to fulfill an economics major, but it does not take the place of ECON 001. It, therefore, cannot be used to fulfill the ECON 001 prerequisite for further work in the Economics Department.
Writing course.
1 credit.
Not offered 2014-2015
ECON 002A. First-Year Seminar: Emerging Market Economies: The BRICS 1900-2020
Will Brazil, Russia, India, and China be the most dominant economies in the world by 2050? Why is South Africa (S) in the group? We study the economic trajectories of these countries from roughly 1900, emphasizing the roles of domestic reforms and global markets in spurring human capital accumulation, industrial development, and economic growth. We ask how international organizations like the International Monetary Fund (IMF) and World Trade Organization (WTO) are accommodating the emergence of these countries, and what influence the BRICS are likely to exert on the global governance of trade, aid, finance, and the environment.
This course counts as 1 of the 8 economics credits needed to fulfill an economics major, but it does not take the place of ECON 001. It, therefore, cannot be used to fulfill the ECON 001 prerequisite for further work in the Economics Department.
1 credit.
Not offered 2014-2015.

## ECON 003A. Environmental Policy and Economics

This course examines the role of government in the regulation of the environment from an economics perspective. The course will introduce
the basic tools used to compare the costs and benefits of improving environmental quality and the methods used in the valuation of environmental goods. The last part of the course will focus on how government policies can be used to improve environmental outcomes.
This course counts as 1 of the 8 economics credits needed to fulfill an economics major, but it does not take the place of ECON 001. It, therefore, cannot be used to fulfill the ECON 001 prerequisite for further work in the Economics Department.
Eligible for ENVS credit.
1 credit.
Spring 2015. Peck.
ECON 005. Savage Inaccuracies: The Facts and Economics of Education in

## America

(Cross-listed as EDUC 069)
This course investigates the relationship between issues of resource allocation and educational attainment. It examines the facts about student achievement, educational expenditure in the United States, and the relationship between them. It studies such questions as: Does reducing class size improve student achievement? Does paying teachers more improve teacher quality and student outcomes? The course also investigates the relationship between educational attainment and wages in the labor market. Finally, it analyzes the effects of various market-oriented education reforms such as vouchers and charter schools. Prerequisites: ECON 001 and any statistics course (or the consent of the instructor). EDUC 014 is strongly recommended.
Eligible for PPOL credit.
1 credit.
Fall 2014. Kuperberg.

## ECON 011. Intermediate Microeconomics

Provides a thorough grounding in intermediate-
level microeconomics. The standard topics are covered: behavior of consumers and firms, structure and performance of markets, income distribution, general equilibrium, and welfare analysis. Students do extensive problem solving both to facilitate learning microeconomic theory and its applications.
Prerequisites: ECON 001 and MATH 015. 1 credit.
Fall 2014. Magenheim.

## ECON 012. Game Theory and Strategic

## Behavior

How should one bargain for a used car or mediate a contentious dispute? This course is an introduction to the study of strategic behavior and the field of game theory. We analyze situations of interactive decision making in which the participants attempt to predict and to influence the
actions of others. We use examples from economics, business, biology, politics, sports, and everyday life.
Prerequisite: ECON 001.
Eligible for PEAC credit.
1 credit.
Spring 2015. Bayer.

## ECON 015. Economic Poverty and Inequality

This course examines the causes and consequences of poverty and (income and wealth) inequality.
Topics covered include measurement, mobility, and the impact of globalization, technical change, taxation, and aid. Micro interventions and macro initiatives are contrasted. Public policies and programs aimed at prevention, alleviation, and redistribution are analyzed and evaluated. The developed and developing country contexts are considered.
Prerequisite: ECON 001.
1 credit.
Spring 2015. Jefferson.
ECON 021. Intermediate Macroeconomics
The goal of this course is to give the student a thorough understanding of the actual behavior of the macroeconomy and the likely effects of government stabilization policy. Models are developed of the determination of output, interest rates, prices, inflation, and other aggregate variables such as fiscal and trade surpluses and deficits. Students analyze conflicting views of business cycles, stabilization policy, and inflation/unemployment trade-offs.
Prerequisites: ECON 001 and MATH 015. Freshmen need the consent of the professor. 1 credit.
Spring 2015. Kuperberg.

## ECON 022. Financial Economics

This course analyzes the ways that firms finance their operations. It discusses the organization and regulation of financial markets and institutions. It examines theories explaining asset prices and returns, and it discusses the function and pricing of options and futures contracts.
Prerequisite: ECON 001 and ECON 031, STAT 031, or STAT 061.
1 credit.
Fall 2014. Caskey.
ECON 031. Introduction to Econometrics
This course provides an introduction to the theory and practice of applied quantitative analysis in economics. Following a brief discussion of probability, statistics, and hypothesis testing, this course emphasizes using regression analysis to understand economic relationships and to test their statistical significance. Computer exercises
provide practical experience in using these quantitative methods.
Prerequisite: ECON 001.
1 credit.
Each semester. Wang.
ECON 032. Operations Research (See ENGR 057)
1 credit.
Fall 2014. McGarity.

## ECON 033. Financial Accounting

This course is designed to provide students with an intermediate level study of corporate accounting theory and practice as it falls within the framework of United States generally accepted accounting principles (GAAP). A major focus of the course is how accounting provides information to various user groups so that they can make more informed decisions. In particular, students will learn the steps in the accounting cycle leading up to the preparation and analysis of corporate financial statements. Students are also exposed to some of the fundamental differences between federal tax rules and external financial reporting requirements and are made aware of the organizations that influence and contribute to the body of knowledge in financial accounting. Finally, ethical issues that may be confronted by the accountant are also discussed throughout the course.
Prerequisite: ECON 001.
1 credit.
Each semester. Hargadon.

## ECON 035. Econometrics

Quantitative methods used in estimating economic models and testing economic theories are studied. Students learn to use statistical packages to apply these methods to problems in business, economics, and public policy.
Prerequisite: ECON 001 and ECON 031 or STAT 061.

1 credit.
Fall 2014. Jefferson.

## ECON 041. Public Economics

This course focuses on government expenditure, tax, and debt policy. A major part of the course is devoted to an analysis of current policy issues in their institutional and theoretical contexts. The course will be of most interest to students having a concern for economic policy and its interaction with politics.
Prerequisite: ECON 001.
Recommended: ECON 011.
Eligible for PPOL credit.
1 credit.
Not offered 2014-2015.

ECON 042. Law and Economics
The purpose of this course is to explore the premises behind the use of utilitarian constructs in the analysis of public policy issues. In particular, the appropriateness of the growing use of economic methodology will be examined through an intensive study of issues in property, tort, contract, and criminal law.
Prerequisite: ECON 001.
Recommended: ECON 011.
Eligible for PPOL credit.
1 credit.
Not offered 2014-2015.

## ECON 044. Urban Economics

The topics covered in this course include the economic decline of central cities, transportation policies, local taxation, theories of urban growth patterns, local economic development initiatives, and the economics of land use and housing. Prerequisite: ECON 001 and ECON 031, STAT 031, or STAT 061.
1 credit.
Spring 2015. Caskey.

## ECON 050. Tracking the U.S. Economy

The course focuses on the meanings, strengths, and weaknesses of the major macroeconomic statistics. For example, why is the unemployment rate an imperfect labor-market indicator? Why do different employment and price measures sometimes provide differing pictures of the labor market and inflation? Does indexing someone's income to the Consumer Price Index raise the person's standard of living? How does the Government's jobs report affect the value of the U.S. dollar? What are lagging indicators?

Prerequisite: ECON 001.
1 credit.
Spring 2015. Steinberg.
ECON 051. International Trade and Finance
This course surveys the theory of trade (microeconomics) and of the balance of payments and exchange rates (macroeconomics). The theories are used to analyze topics such as trade patterns, trade barriers, flows of labor and capital, exchange-rate fluctuations, the international monetary system, and macroeconomic interdependence.
Prerequisites: ECON 011 and ECON 021.
Eligible for ASIA, PEAC, or PPOL credit. 1 credit.
Not offered 2014-2015.
ECON 054. Global Capitalism Since 1920
This course will study global capitalism over the last century, focusing on the interplay between events, economic theories and policies. The issues
to be examined include: financial market booms and busts; business cycles; inequality; the social welfare state; technological change and economic growth; and international trade and financial arrangements. The time period covers: the Roaring Twenties; the Great Depression, the post war Golden Age (1945-1973); the stagflation of the 1970s; the Thatcher-Reagan-Greenspan-Bush era of market liberalization (1980-2007); and the financial crisis and Great Recession of 2007-2010. Economic theories include: the classical laissezfaire view; Schumpeter's theory of "creative destruction"; Keynes and the "neo-classical synthesis" advocating a mixed economy; Minsky's theory of financial instability; Friedman, the efficient-markets hypothesis, and the "new classical" critiques of government interventions; and emerging ideas in response to the present crisis. The course will chronicle and compare economic policy and performance of the United States, Europe, Japan, and the developing world (Asia, Latin America, Africa).
Prerequisite: ECON 001.
1 credit.
Spring 2015. Golub.

## ECON 063. Public Policies in Practice: Establishing What Works and for Whom

 Participants in this course will examine research on specific policy interventions designed to change outcomes for individuals, corporations, and communities. Particular focus will be on attempts to establish whether such policy interventions can cause changes in outcomes for individuals, corporations, or communities. In recent decades, random assignment/experimental designs have increasingly been applied to estimate the impact of changes in policies on employment, welfare, housing, education, policing, public health, and community development. Social policy experiments and alternative methods to examine cause and effect will be covered, with emphasis on actual examples from the previously mentioned fields. Specific issues in design, implementation of such studies, the analysis of results, and translation to the policy context will be reviewed. Students will meet with selected analysts who carry out these types of studies. Students will do some analysis of data generated from quantitative studies of what works and for whom.Prerequisite: ECON 001.
1 credit.
Spring 2015. Hollister.

## ECON 073. Race, Ethnicity, and Gender in

 EconomicsThis course focuses on the role of difference in economic systems. In this course, we learn how to apply the theoretical and empirical tools of economics to analyze the economic status of women and of various racial and ethnic groups in the United States, and we explore the various
sources of, and solutions to, persistent economic inequality. We also examine the roles of race, ethnicity, and gender in the development of economic theory and policy.
Prerequisite: ECON 001.
Eligible for BLST, GSST, or PPOL credit. 1 credit.
Fall 2014. Bayer.

## ECON 075. Health Economics

This course applies the tools of microeconomic analysis to the health care industry. We will analyze the determinants of demand for and supply of health care, including the relationship between demographic variables, health status, and health care consumption. The structure and behavior of the major components of the supply side will be studied, including physicians, hospitals, and insurance companies. The variety of ways in which the government intervenes in the health care sector-regulation, antitrust, social insurance, and direct provision-will be considered. Finally, we will study some more specialized topics, including the intersection of bioethics and economics, mental health economics, and international health system comparisons. Students will write a series of short papers, examining medical, economic, and policy considerations related to a health problem or issue.
Prerequisite: ECON 001.
1 credit.
Not offered 2014-2015.
ECON 076. Environmental Economics
Introduction to the microeconomics of environmental issues with applications to the design of environmental policy. The course will cover the concepts and methods used in the valuation of environmental goods as well as the design of policy instruments and regulations to improve environmental quality. Specific topics include pollution and environmental degradation, the use of renewable and non-renewable resources, and climate change. Prerequisite: ECON 001.
Recommended: ECON 011.
Eligible for ENVS or PPOL credit.
1 credit.
Fall 2014. Peck.

## ECON 081. Economic Development

A survey covering the principal theories of economic development and the dominant issues of public policy in low-income countries. Topics include the determinants of economic growth and income distribution, the role of the agricultural sector, the acquisition of technological capability, the design of poverty-targeting programs, the choice of exchange rate regime, and the impacts of international trade and capital flows (including foreign aid).
Prerequisite: ECON 001.

Eligible for ASIA, BLST, PEAC, or PPOL credit. 1 credit.
Not offered 2014-2015.

## ECON 082. Political Economy of Africa

A survey of the post-independence development experience of Sub-Saharan Africa. We study policy choices in their political and institutional context, using case-study evidence and the analytical tools of positive political economy. Topics include development from a natural resource base, conflict and nation building, risk management by firms and households, povertyreduction policies, globalization and trade, and the effectiveness of foreign aid.
Prerequisite: ECON 001.
Eligible for BLST, PEAC, or PPOL credit. 1 credit.
Not offered 2014-2015.
ECON 099. Directed Reading
With consent of a supervising instructor, individual, or group study in fields of interest not covered by regular course offerings.
Fall or spring semester. Staff.

## Seminars

ECON 101. Advanced Microeconomics
Subjects covered include consumer and producer theory, optimization and duality, general equilibrium, risk and uncertainty, asymmetric information, and game theory.
Prerequisites: ECON 011 and multivariable calculus (MATH 033, 034, or 035). Enrollment is restricted to juniors and seniors.
2 credits.
Spring 2015. Bayer.
ECON 102. Advanced Macroeconomics
Subjects covered include microfoundations of macroeconomics, growth theory, rational expectations, and New Classical and New Keynesian macroeconomics. Extensive problem solving, with an emphasis on the qualitative analysis of dynamic systems.
Prerequisites: ECON 011, ECON 021, and multivariable calculus (MATH 033, 034 or 035, or MATH 025 or 026 with permission of the instructor).
Recommended: MATH 043 or 044.
2 credits.
Not offered 2014-2015.
ECON 122. Financial Economics
This seminar analyzes the ways that firms finance their operations. It discusses the organization and regulation of financial markets and institutions. It examines theories explaining asset prices and returns, and it discusses the function and pricing of options and futures contracts.

Prerequisites: ECON 011, ECON 031 or ECON
035 , and MATH 025 or higher calculus.
2 credits.
Fall 2014. Caskey.
ECON 135. Advanced Econometrics
Quantitative methods used in estimating economic models and testing economic theories are studied. Students learn to use statistical packages to apply these methods to problems in business, economics, and public policy. Students will also evaluate studies applying econometric methods to major economic issues. An individual empirical research project is required.
Prerequisites: ECON 035 and linear algebra
(MATH 027, 028 or 028S).
1 credit.
Spring 2015. Jefferson.

## ECON 141. Public Economics

This seminar focuses on the analysis of government expenditure, tax, and debt policy. A major part of the seminar is devoted to an analysis of current policy issues in their institutional and theoretical contexts. The seminar will be of most interest to students having a concern for economic policy and its interaction with politics.
Prerequisite: ECON 011 and ECON 031 (or its equivalent)
Eligible for PPOL credit.
2 credits.
Not offered 2014-2015.

## ECON 151. International Economics

Both microeconomics and macroeconomics are applied to an in-depth analysis of the world economy. Topics include trade patterns, trade barriers, international flows of labor and capital, exchange-rate fluctuations, the international monetary system, financial crises, macroeconomic interdependence, the roles of organizations such as the World Trade Organization and International Monetary Fund, and case studies of selected industrialized, developing, and transition countries.
Prerequisites: ECON 011 and ECON 021. Eligible for PPOL, ASIA, or PEAC credit. 2 credits.
Spring 2015. Wang.
ECON 171. Labor and Social Economics
Students discuss such topics as the organization of work within firms, labor market operations, unions and labor relations, unemployment and macroconditions, economic analysis education, health care, housing, and discrimination, determinants of income inequality, and government policies with respect to health, education, and welfare.
Prerequisite: ECON 001.

## Economics

Recommended: ECON 011.
Eligible for BLST or PPOL credit.
2 credits.
Spring 2015. Hollister.

## ECON 181. Economic Development

The economics of long-run development in Africa,
Asia, and Latin America. We cover the leading theories of growth, structural change, income distribution, and poverty, with particular attention to development strategies and experience since World War II. Topics include land tenure and agricultural development, rural-urban migration, industrialization, human resource development, poverty targeting, trade and technology policy, aid and capital flows, macroeconomic management, and the role of the state. Students write several short papers examining the literature and a longer paper analyzing a particular country's experience. Prerequisites: ECON 011, ECON 021, and either ECON 031, STAT 011, or STAT 031.
Eligible for ASIA, BLST, or PPOL credit.
2 credits.
Not offered 2014-2015.

## ECON 198. Thesis

With consent of a supervising instructor, honors majors may undertake a senior thesis for double credit.
Each semester. Staff.

K. ANN RENNINGER, Professor ${ }^{3}$<br>LISA SMULYAN, Professor and Chair<br>DIANE DOWNER ANDERSON, Associate Professor<br>CHERYL JONES-WALKER, Assistant Professor ${ }^{1}$<br>EDWIN MAYORGA, Assistant Professor<br>ELAINE ALLARD, Visiting Assistant Professor<br>JENNIFER BRADLEY, Visiting Assistant Professor (part time)<br>ELAINE BRENNEMAN, Visiting Assistant Professor (part time)<br>MARGARET INMAN LINN, Visiting Assistant Professor (part time)<br>KAE KALWAIC, Administrative Assistant<br>CATHERINE DUNN, Placement and Clearance Coordinator

${ }^{1}$ Absent on leave, fall 2014.
${ }^{3}$ Absent on leave, 2014-2015.

The Educational Studies Department at Swarthmore engages students in the investigation of educational theory, policy, research and practice from a variety of disciplinary perspectives. We prepare students to work in educational research or policy, to enter the teaching profession, and/or to pursue graduate study in educational studies or a related field. The department encourages undergraduates to think critically and creatively about the processes of teaching and learning and about the place of education in society. The department is also committed to preparing students to address education-related needs in an era of rapidly increasing racial, ethnic and linguistic diversity and technological change to develop students' abilities to participate fully in civic, cultural and economic arenas. Both introductory and upper level courses in the department draw on theory and research in anthropology, economics, history, political science, psychology and sociology.

## The Academic Program

Students interested in educational studies at Swarthmore may design an honors or course special major in educational studies and another discipline or an honors or course minor in educational studies. Students also have the option to pursue teacher certification.

## Course Special Major

In special majors involving educational studies the student combines work in educational studies with work in another academic department or interdisciplinary program. Pre-established programs have been created with the following disciplines: biology, chemistry, English literature, French, German, history, linguistics, mathematics/statistics, music, physics, political science, psychology, Russian, sociology/anthropology, and Spanish. Special majors with other disciplines can be pursued with the approval of both the Educational Studies
Department and the second department. In the case of all special majors involving educational studies,
both departments collaborate in advising the student.
The special major usually requires 10 to 12 credits, at least 5 of which must be in educational studies. All special majors are required to complete a thesis or a comprehensive examination integrating work in their two fields of study. Special majors are encouraged to take EDUC 065 Educational Research for Social Change in the spring of their sophomore or junior year. This course, which can be taken for 0.5 or 1 credit, prepares students to write a special major thesis in their senior year. Each partnering department or program provides specific course requirements for the completion of a special major and for the thesis/comprehensive exam, details of which may be found on the departmental website.
If special majors pursue teaching certification, EDUC 092: Curriculum and Methods Seminar and EDUC 093: Practice Teaching are not counted as part of a special major requirements. The prerequisite for acceptance to the special major program is successful completion of EDUC 014: Introduction to Education and one other course in the department.

## Course Minor

The educational studies minor provides students with the opportunity to choose from a variety of educational studies courses and prompts students to reflect on the overarching theme of their experience in the department. The educational studies minor requires at least 5 credits in educational studies. Students identify a focus when they apply for the minor and then explain how their coursework supports this focus. Possible foci include but are not limited to Teaching and Practice, Educational Policy, Educational Psychology, School and Society, Urban Education, Environmental Education, and Literacy. The prerequisite for acceptance to the educational studies minor program is EDUC 014: Introduction to Education. Minors may also pursue teacher certification.

## Honors Program

The department supports the Honors Program for special majors and minors.

## Honors Special Majors

Students may opt to pursue an Honors Special major in educational studies and another department or interdisciplinary program. Preestablished special majors have been created with the following disciplines: English, linguistics, political science, psychology and sociology/anthropology. Honors special majors with other disciplines can be pursued with the approval of both educational studies and the partnering department. The Honors special major, like the Course special major, requires a total of 10 to 12 credits, at least 5 of which must be in educational studies. However, Honors special majors must also include 4 Honors preparations in their program. These must be distributed as follows:

- 3 (2 credit) Honors preparations, normally completed by taking Honors seminars, at least 1 or 2 of which must be in educational studies.

0 It is possible to complete a onecredit educational studies course with another one-credit educational studies attachment as 1 Honors preparation.
Availability of this option is limited and designed with a supervising educational studies faculty member.

- 1 Honors preparation through the completion of a double-credit thesis. This thesis normally serves to integrate the fields of the special major and is supervised by faculty members in both departments of the special major. Honors special majors are encouraged to take EDUC 065 Educational Research for Social Change in the spring of their sophomore or junior year. This course, which can be taken for 0.5 or 1 credit, prepares students to write the special major thesis in their senior year.
Each partnering department also provides specific course requirements for the completion of a Honors special major, which may be found on the departmental website. Students are expected to have a B+ average in their educational studies courses to complete an Honors special major. Additionally, students must complete external examinations upon completion of the program. The prerequisite for acceptance to the Honors Educational Studies Major Program is EDUC 014: Introduction to Education, 2 additional educational studies courses of the student's choice, and an average grade of $\mathrm{B}+$ in all educational studies courses at the time of application. Honors majors may also pursue teacher certification.


## Honors Minors

Students may opt to pursue an Honors minor in educational studies. The Honors minor requires five credits in educational studies, including EDUC 014: Introduction to Education (1 credit), one Honors seminar (2 credits), and two additional credits of the student's choice. Students are expected to have a $\mathrm{B}+$ average in their educational studies courses and to complete the external Honors examination. The prerequisite for acceptance to the Honors educational studies minor program is EDUC 014: Introduction to Education. Honors minors may also pursue teacher certification.

## Additional Honors Program Details

## External Examinations

As part of the Honors Program, students complete an examination for each completed preparation. The thesis preparation for Honors special major students involves a 45-60-minute individual oral exam on their work with an outside examiner. Examination for Honors preparations other than the thesis includes a written and an oral component. The written portion of the exam is set by an external examiner who writes exam questions based on seminar syllabi. The exam may include a problem set, a case and/or additional readings relevant to the work students have undertaken in that preparation. These materials may be sent to the student in advance of the written exam. All educational studies honors exams are written in the Educational Materials Center. A maximum of 5 hours is allowed for completion of each exam.

## Intellectual Autobiography

All Honors students (special majors and minors) in educational studies write a short intellectual autobiography that is sent to the Honors examiner. Students may also choose to send to the examiner a paper from an Honors seminar. The autobiography and the paper are not formally evaluated by the examiner; they are intended to familiarize the examiner with the student's experience and background in educational studies, since each student in each seminar brings different disciplinary content to his/her understanding of the material. The autobiography is written in the spring of the senior year under the supervision of the department chair in educational studies.

## Sophomore Plan Application Process

Students interested in pursuing a special major or minor through the department are encouraged to discuss their interests and plans with faculty members. The department's website may also be helpful. Faculty will advise and assist students as they explore the multiple options available to them.

In order to complete the Sophomore Plan, students will:

- Arrange a meeting with the chair of the department to discuss their educational studies interests and how they might complete the necessary requirements during the remainder of their Swarthmore career.
- Write a Sophomore Plan and submit it to the department in conjunction with specifications provided by the Dean's Office at www.swarthmore.edu/student-life/academic-advising-and-support/sophomore-plan-ofstudy.xml.


## Pathways to Teaching

Swarthmore students come to an interest in teaching at many points during their own educational careers-some before they enter college, others during their four undergraduate years, and some as they investigate possible careers after Swarthmore. Students are encouraged to explore the many opportunities available to them in the field of education. Pathways to Teaching, on the department's website, offers students more information on the options available to them:

- Mentoring and tutoring opportunities offered through Swarthmore.
- Summer opportunities to work in classrooms or enrichment programs or complete an educationrelated internship.
- Teacher certification at Swarthmore.
- Graduate study in education, including teaching programs and other programs in educational studies.
- Post-graduation teaching/education job opportunities and resources (for all studentswith or without certification)


## Research Opportunities and Experiences

Engaging in research is integral to students’ work in educational studies. Participation in research supports students to understand the importance of research to theory, policy-making, and practice.
In each course and seminar in the department, students are introduced to qualitative and/or quantitative methods of research, which they use to work directly with questions addressed in coursework. Students not only read original research, but they also collect and analyze data using appropriate methods in each course.
Students are strongly encouraged to take EDUC 065: Educational Research for Social Change in the spring of their sophomore or junior year. This course, which can be taken for 0.5 or 1 credit, prepares students to write a special major thesis in their senior year.

As a culminating activity in the department, most special majors write a thesis. Students select the focus of their thesis work; theses typically build on students' course work and methods training in educational studies and the other department comprising their special major.
Some students conduct independent research or serve as research assistants on faculty members' projects. Students may begin working as research assistants as early as the summer following their first year. Many such collaborations have led to student-faculty co-authored conference presentations, articles, and chapters.

## Fieldwork and Service-Learning Opportunities

Bridging research and practice is a goal for courses and seminars in the department. Many courses and seminars have a distinctive field work component. Course descriptions indicate if a course involves a field placement.
Depending on transportation options, students can request fieldwork placements in urban, suburban, or rural communities and choose from public, charter, or private school settings. Students are encouraged to use the field placements as an opportunity to explore a range of school and population types. A list of school sites may be found on the department's website. In addition, EDUC 070: Community Outreach Practicum is a course designed for students working in out-ofschool educational and community-based settings.

## Study Abroad

Students requesting credit in educational studies for course or field work done abroad (or at another institution in the U.S.) must take EDUC 014: Introduction to Education. This course may be taken before or after the study abroad credit is completed, but the credit will only be accepted after Introduction to Education has been completed.
Two study abroad programs with developed educational studies components include:

## The Cloud Forest School Program, Costa

 RicaThrough this program, students complete a schoolbased internship and receive an intercultural credit for Spanish language learning. See
http://www.swarthmore.edu/academics/educationa l-studies/academic-program/off-campus-study/cloud-forest-program.xmlfor more information.

Globalization and the Environment,
University of Capetown, South Africa
This program focuses on both environmental and educational issues such as literacy, equity, intersections between schools, communities, and the environment in South Africa. See
http://www.swarthmore.edu/academics/educationa l-studies/academic-program/off-campus-study/globalization-and-the-environmentprogram.xml for more information.

## Transfer Credit

Transfer credit is accepted once a student has completed EDUC 014: Introduction to Education. To request transfer credit, the student must present a syllabus and all course work for the department to review. Some additional work may be required.

## Teacher Certification

Swarthmore offers a competency-based teacher preparation program for both special majors and minors (Honors or Course). Certification for elementary, middle and/or high school teaching is transferable to all 50 states; after PA certification, some states may require additional exams or content. A guide to certification reciprocity is
available through Certification Map at http://certificationmap.com/states/reciprocitydisclaimer/.
Swarthmore's programs for secondary certification are designed with guidance from faculty members in the discipline in which the student is being certified as well as members of the Educational Studies Department. Students preparing for elementary certification design their course of study with advisement from the Swarthmore Educational Studies Department and Eastern University.
Formal admission to the teacher certification program occurs at the start of EDUC 092: Curriculum and Methods and EDUC 093: Practice Teaching after students have successfully completed their core educational studies and discipline major requirements. Students must have completed 12 Swarthmore College credits (48 credit hours) to enroll in the program.

## State Requirements for Certification

In order to be certified, students must attain either an overall grade point average of 3.0 or an overall grade point average of 2.8 GPA and a qualifying score on the appropriate PRAXIS exams. More information about the exams required for certification can be found on the Educational Studies Department website under "Teacher Certification > Student Teaching > Exam Information."
Students seeking certification must meet all Swarthmore's general requirements for graduation with a Bachelor's degree, educational studies requirements for certification, and state teaching certification distribution requirements in mathematics, English literature, and English composition. The following outline presents the ways in which students might meet these state distribution requirements:
Mathematics: 6 credit hours. This may be fulfilled by any sufficient combination of the following options:

| Activity | Credit Hour Value |
| :--- | :---: |
| Swarthmore 1-credit Math/Statistics or Natural Science course | 4 |
| Score of 4 or 5 on AP Calculus AB | 4 |
| Score of 4 or 5 on AP Calculus AB/BC | 4 |
| Score of 4 or 5 on AP Statistics | 4 |
| Score of 6 or 7 on the Higher Level IB Exam | 4 |
| Scores of 560 or higher on the SAT level 1 or II math level IC or IIC | 3 |
| CLEP math test (http://clep.collegeboard.org/exam) | 4 |
| Combination should total | $\mathbf{6}$ |

English Literature: 3 credit hours. This may be fulfilled by any sufficient combination of the following options:

| Activity | Credit Hour Value |
| :--- | :---: |
| Swarthmore 1-credit English Department course | 4 |
| Score of 4 or 5 on AP English Literature | 4 |
| Score of 6 or 7 on the Higher Level IB Exam | 4 |
| CLEP literature test (http://clep.collegeboard.org/exam) | 4 |
| Combination should total | $\mathbf{3}$ |

English Composition: 3 credit hours, met by the College's general distribution requirement of Writing courses.

## Certification Options

Swarthmore offers a wide variety of teacher certification options for students who are interested in receiving this credential.

## Elementary Certification (Grades Pre-K-4 and 4-8)

Certification in elementary education is granted to Swarthmore students through Eastern University. Students complete the majority of their coursework at Swarthmore, including student teaching, but must also complete 2 summer courses at Eastern University in order to receive elementary certification. The department recommends that students pursue two certifications from the state of Pennsylvania: one that allows students to teach in grades pre-K through 4 and one for grades 4 through 8.
Students must fulfill all of the state general distribution requirements. Additionally, required Swarthmore coursework includes:

- EDUC 014: Introduction to Education
- EDUC/PSYC 021: Educational Psychology
- EDUC 042: Teaching Diverse Young Learners
- EDUC/PSYC 026: Special Education
- EDUC 053: Language Minority Education
- Recommended—EDUC 023: Adolescence

The Eastern University summer school program consists of two elementary methods courses in Language Arts and Reading. The hybrid online and face-to-face course work begins in mid-May and ends in early June for a total cost of approximately $\$ 3,530$ (cost as of spring 2014; students on financial aid can apply for support). Students receive 1 Swarthmore College credit for these courses.
Students must consult with the chair of Swarthmore's Educational Studies Department regarding their program of study to ensure that it includes a representative distribution of English, social studies, math, and science coursework required for 4-8 certification.
Elementary Certification candidates complete one semester of student teaching through Swarthmore, which consists of EDUC 092: Curriculum and Methods (2 credits) and EDUC 093: Practice Teaching (2 credits).

## Secondary Certification (Grades 7-12)

The department offers secondary (7-12) teacher certification in biology, chemistry, citizenship, English, mathematics, physics, and social studies. The department also offers a K-12 certification in French, German, Russian, or Spanish. Students must complete a major or special major in their area of certification. Majors/special majors in history, economics, or political science receive secondary certification in either citizenship or social studies, and majors/special majors in
psychology or sociology/anthropology receive secondary certification in social studies.
In order to be certified, students should fulfill all of the state general distribution requirements.
Additionally, students must complete a major or a special major in their area of certification and take a total of five and a half core courses in educational studies:

- EDUC 014. Introduction to Education
- EDUC/PSYC 021. Educational Psychology
- EDUC/PSYC 023. Adolescence
- EDUC 023A. Adolescents and Special Education ( 0.5 credit)
- EDUC/PSYC 026. Special Education
- EDUC 053. Language Minority Education Students must complete subject-specific requirements that may or may not differ from the special major or major requirements already established. Students should refer to the subjectspecific requirements charts on the Educational Studies Department website for the special major discipline's course obligations with teacher certification.
Students must complete one semester of student teaching, which consists of EDUC 092: Curriculum and Methods (2 credits) and EDUC 093: Practice Teaching (2 credits).


## World Language Teaching Certification

 (Grades K through 12)Students who wish to teach a world language (Spanish, French, German or Russian) will receive $\mathrm{K}-12$ teaching certification in their specific language area upon completion of the program. This will allow them to teach elementary, middle, and high school. All world language certification students should follow the pathway for secondary teacher certification to attain the K-12 certification. Refer to the Secondary Certification section for details.

## Student Teaching

EDUC 092: Curriculum and Methods (2 credits) and EDUC 093: Practice Teaching (2 credits) are completed during the first semester of the senior year or in a ninth semester after graduation. Placement for practice teaching is available in a range of public and private schools.

## Ninth Semester

Students who have completed all of the requirements for certification (in their discipline and in educational studies) except for student teaching may return following graduation to complete the teacher certification program during a ninth semester. During this semester, students can only take EDUC 092: Curriculum and Methods (2 credits) and EDUC 093: Practice Teaching ( 2 credits). This option is only offered in the fall, and the cost is $\$ 5,893.00$ (as of spring
2014). Students in the ninth semester program have full access to computing and other campus facilities but are not eligible for campus housing.

## Courses

## EDUC 001C. The Writing Process:

 Pedagogy and Practice(See ENGL 001C)
Fall 2014. Gladstein.

## EDUC 014. Introduction to Education

This course provides a survey of issues in education within an interdisciplinary framework. In addition to considering the theories of individuals such as Dewey, Skinner, and Bruner, the course explores some major economic, historical, psychological, and sociological questions in American education and discusses alternative policies and programs. Topics are examined through readings, writing, discussion, and hands-on activity, including a school fieldwork placement. The course provides an opportunity for students to explore their interests in educational policy, student learning, and teaching. This course, or the first-year seminar EDUC 014F, is required for students pursuing teacher certification.
Writing course.
1 credit.
Each semester. Staff.

## EDUC 014F. First-Year Seminar:

## Introduction to Education

This seminar will draw on materials from the disciplines of psychology, sociology, philosophy, history, and political science to address questions about American education. Topics are examined through readings, writing, discussion, and handson activity, including a school fieldwork placement. This course fulfills the prerequisite for further coursework in educational studies and provides an opportunity for students to explore their interests in educational policy, student learning, and teaching. This seminar, or EDUC 014, is required for students pursuing teacher certification.
Writing course.
1 credit.
Each semester. Staff.

## EDUC 021. Educational Psychology

(Cross-listed as PSYC 021)
This course focuses on issues in learning and development that have particular relevance to understanding student thinking. Research and theoretical work on student learning and motivation provide the core readings for the course. In addition, students participate in a laboratory section that involves consideration of learning and motivation in an integrated, interdisciplinary public school classroom and
provides an introduction to research methods. Required for students pursuing teacher certification.

## 1 credit.

Fall 2014. Renninger.

## EDUC 023. Adolescence

(Cross-listed as PSYC 023)
In this course, students examine adolescent development from psychological, sociological, and life-span perspectives, reading both traditional theory and challenges to that theory that consider issues of race, class, gender, ethnicity, and sexual orientation. During the first part of the term, students explore various aspects of individual development (e.g., cognitive, affective, physiological, etc.). The second part focuses on the adolescent's experience in a range of social contexts (e.g., family, peer group, school, etc.). Required for students pursuing secondary teacher certification.
Prerequisite: EDUC 014 or permission of the instructor.
1 credit.
Fall 2014. Brenneman.

## EDUC 023A. Adolescents and Special

Education
In this half credit attachment to EDUC 23, Adolescence, students will focus on meeting the needs of diverse adolescent learners. In particular, students will examine the unique psycho-social interactions between adolescents receiving special education services, their parents and the educators who work with them. Students will also explore strategies for addressing specific cognitive and academic needs of these adolescents in literacy, content area learning, and transitions out of school. Course includes a field placement. Required for students pursuing secondary teacher certification. Prerequisite: EDUC 026/PSYC 026 (can be taken concurrently) or permission of the instructor. EDUC 023 can be taken concurrently with EDUC 023A.
Available as credit/no credit only.
0.5 credit.

Spring 2015. Linn.

## EDUC 026. Special Education: Issues and

 Practice(Cross-listed as PSYC 026)
This course is designed to provide students with a critical overview of special education, including its history, the classification and description of exceptionalities, and its legal regulation. Major issues related to identification, assessment, educational and therapeutic interventions, psychosocial aspects, and inclusion are examined. Course includes a field placement. Required for students pursuing teacher certification.

1 credit.
Spring 2015. Linn.

## EDUC 041. Educational Policy

This course examines K-12 education policy formation, implementation, and effects in the United States. Students will develop a working knowledge of the policy landscape on the federal, state, and local levels and use this knowledge to examine the relationship between policy, power, and practice. The course will examine a range of current policy topics, potentially including school finance, issues of adequacy and equity, standardsbased reform, assessment and accountability,
bilingual education, school choice, early childhood education, special education, desegregation, and teacher quality and compensation. Drawing on a critical policy studies framework, students will examine education policies and develop strategies and projects that would support, critique and transform extant policies.
1 credit.
Fall 2015. Mayorga.

## EDUC 042. Teaching Diverse Young

 LearnersThis course explores the ways children learn in classrooms and construct meaning in their personal, community, and academic lives. The course is framed by theories of learning as transmissionist, constructivist, and participatory. Students will draw on ethnographies, research, their own learning histories, classroom observations, and positioning as novice learners to create optimal learning environments for diverse learners including but not limited to Englishlanguage learners, socioeconomically disadvantaged populations, culturally nonmainstream students, students with learning differences and disabilities, and students with socioemotional classifications. Course includes fieldwork. Required for elementary certification.
Writing course.
1 credit.
Not offered 2014-2015.

## EDUC 043. Teacher Narratives, Policy and

 PowerThis course is an exploration of the lives of teachers: how they are framed within popular culture and policy, and how they frame themselves within the politics of the classroom, schools and broader society. Students will work with various critical social theories and analytical tools to think through teacher narratives, historical and sociological texts, film, policy debates, guest presentations, and other sources. Assignments will include conducting interviews with educators and producing mixed media projects that reframe educator identities.

1 credit.
Fall 2014. Mayorga.
EDUC 045. Literacies and Social Identities
This course explores the intersections of literacy practices and identities of gender, race, class, religion, ethnicity, and sexual orientation within communities of practice. It includes but is not limited to school settings. Students will work with diverse theory and analytical tools that draw on educational, anthropological, historical,
sociological, linguistic, fictional, visual, popular readings and "scenes of literacy" from everyday practice. Fieldwork includes a Learning for Life partnership, tutoring, or community service in a literacy program.
Writing course.
1 credit.
Not offered 2014-2015.
EDUC 053. Language Minority Education
(Cross-listed as LING 053)
This course examines the multifaceted issues facing English learners in U.S. schools. Course topics include theories of second language acquisition and bilingualism, the history of bilingual education in the United States, educational language policies and the impact of the English-only movement, and practical approaches to teaching linguistic minority students. Course readings draw from relevant literature in sociolinguistics, language policy, language acquisition, educational anthropology, and language pedagogy. Through fieldwork and small group projects, students have the opportunity to explore issues particular to a language minority population of their choice. Required for students pursuing teacher certification.
1 credit.
Spring 2015. Allard.
EDUC 054. Oral and Written Language (See LING 054)
Prerequisite: LING 001, 040, 045, or 050.
1 credit.
Not offered 2014-2015. Napoli.

## EDUC 064. Comparative Education

This course examines key issues and themes in education as they play out in schools and nations around the world. We will explore the roles of local, national, and international actors and organizations in the construction of educational goals and practice, using case studies and country studies to look for the interplay between local context and globalized movements in education. Topics will include immigration and schooling, equity, literacy and curriculum goals and constructs.
Prerequisite: EDUC 014 or permission of the instructor.

1 credit.
Fall 2014. Smulyan.

## EDUC 065. Educational Research for

## Social Change

In this course, students explore the potential for classroom, school, and educational change through research. Students will learn how to design a qualitative study in education, engaging in the processes of defining a research question, examining relevant literature, choosing appropriate methods for data collection, and analyzing data. Strongly recommended (.05) for special majors in educational studies who will complete a 1 or 2 credit thesis.
Prerequisite: EDUC 014 or permission of the instructor.
.05 or 1 credit.
Spring 2015. Allard.

## EDUC 068. Urban Education

(Cross-listed as SOAN 020B)
This course examines issues of practice and policy, including financing, integration, compensatory education, curricular innovation, parent involvement, bilingual education, highstakes testing, comprehensive school reform, governance, and multiculturalism. The special challenges faced by urban schools in meeting the needs of individuals and groups in a pluralistic society will be examined using the approaches of education, psychology, sociology, anthropology, political science, and economics. Current issues will also be viewed in historical perspective. This course includes fieldwork.
1 credit.
Spring 2015. Mayorga.
EDUC 069. Savage Inaccuracies: The Facts and Economics of Education in America (See ECON 005)
EDUC 014 is required to receive Educational Studies Department credit for this course. 1 credit.
Fall 2014. Kuperberg.

## EDUC 070. Outreach Practicum

This course is offered in conjunction with the Lang Center for Civic and Social Responsibility. It is designed to support students involved in educational and community-based outreach in urban settings. Students’ volunteer experiences will provide text and case material for course work. Historical grounding in the construction of cities in general, and Chester, PA, in particular, will be provided. Criteria for effective practices will be identified for the range of volunteer roles in community service projects.
0.5 or 1 credit.

Spring 2015. Jones-Walker.

EDUC 071. Introduction to Performing Arts

## Education: Music

(See DANC 091 and MUSI 091)
EDUC 014 is required to receive Educational Studies Department credit for this course.
1 credit.
Not offered 2014-2015. Whitman.

## EDUC 072. Foreign Language Teaching

 and Pedagogy(See Modern Languages and Literatures)
0.5 credit.

Not offered 2014-2015. Staff.
EDUC 073. Creative Writing Outreach Course
(See ENGL 070L)
1 credit.
Spring 2015. Brown.

## EDUC 091A. Special Topics

With permission of the instructor, qualified students may choose to pursue a topic of special interest in education through a field project involving classroom or school practice.
Available as a credit/no credit course only.
0.5 or 1 credit.

Each semester. Staff.
EDUC 091B. Special Topics
With permission of the instructor, students may choose to pursue a topic of special interest by designing an independent reading or project that usually requires a comprehensive literature review, laboratory work, and/or field-based research.
0.5 or 1 credit.

Each semester. Staff.
EDUC 091C. Special Topics (Music Education)
(See MUSI 091C)
Available as a credit/no credit course only.
0.5 credit.

Not offered 2014-2015. Whitman.

## EDUC 092. Curriculum and Methods

This seminar is taken concurrently with EDUC 093 by students pursuing teacher certification. Readings and discussion focus on the applications of educational research and theory to classroom practice. Course content covers: lesson planning; classroom management; inquiry-oriented teaching strategies; questioning and discussion methods; literacy; the integration of technology and media; classroom-based and standardized assessments; instruction of special needs populations; topics in multicultural, nonracist, and nonsexist education; and legislation regarding the rights of students and teachers. As part of the seminar, students take a series of special methods workshops in their
content area. Required for students pursuing teacher certification.
2 credits.
Fall 2014. Smulyan.

## EDUC 093. Practice Teaching

This course involves supervised full-time teaching in either secondary or elementary schools for students pursuing teacher certification. Students pursuing certification must take EDUC 092 concurrently. (Single-credit practice teaching may be arranged for individuals not seeking certification.)
2 credits.
Fall 2014. Staff.
EDUC 096-097. Thesis
1 or 2 credits, normally in conjunction with a special major.
Each semester. Staff.
EDUC 098. Psychology and Educational Studies Thesis
1 or 2 credits, normally in conjunction with a special major.
Each semester. Renninger.

## Seminars

Honors seminars are open to all students. Priority is given to honors majors and minors.

## EDUC 121. Psychology and Practice

This seminar focuses on general developmental principles revealed in and applicable to contexts of practice as well as practical applications of research and theory in developmental psychology. Seminar foci include: (1) use of the literatures in developmental, educational, and social psychology and learning and cognitive science to identify key indicators for assessing changed understanding and motivation; (2) preparation of literature reviews on a topic of each student's choice; and (3) collaborative work on an evaluation research project addressing a "live" issue or problem identified by a local teacher, school, or community organization.
Prerequisites: EDUC 021.
Writing course.
2 credits (or 1 credit with permission of the instructor).
Not offered 2014-2015.
EDUC 131. Social and Cultural Perspectives on Education
In this seminar, students examine schools as institutions that both reflect and challenge existing social and cultural patterns of thought, behavior, and knowledge production. Seminar participants study and use qualitative methods of research and examine topics including the aims of schooling, parent/school/community interaction, schooling
and identity development, and classroom and school restructuring.
Prerequisites: EDUC 014 and an additional course in the 060s.
Writing course.
2 credits.
Spring 2015. Smulyan.

## EDUC 151. Literacy Research

This seminar explores theories and methods in the design and implementation of qualitative studies of literacy, evaluation of literacy programs and pedagogy, and study of literacy policies. Students review relevant literature and participate in a fieldbased collaborative research project or program evaluation.
Prerequisites: EDUC 014 and an additional course in the 040-060s. Either EDUC 042 or 045 is highly recommended.
Writing course.
2 credits.
Fall 2014. Anderson.

## EDUC 153. Latinos and Education

This seminar explores the schooling experiences of Latinos in the U.S. from interdisciplinary perspectives, including sociology, history, anthropology, and linguistics. Course participants engage with questions around educational quality and access, language and culture, immigration and demographic change, curriculum and pedagogy, and community activism in relation to the education of Latinos. Students will study assetbased approaches to research and teaching and will use one or more of these research methodologies in a collaborative, community-based research project in and for a local Latino-serving school. Prerequisites: EDUC 053 or EDUC 068 2 credits.
Not offered 2014-2015.

## EDUC 167. Identities and Education

This course explores intersections between identities of race, class, gender, sexual orientation and public education in the United States. Readings will draw on the fields of anthropology, legal studies, and cultural studies. Two central frameworks, Cultural Production and Critical Race Theory, will guide consideration of how social structures inform the realities of schooling and how racial, class-based, gendered and sexual identities are formed within the context of schools. Prerequisites: EDUC 014 and EDUC 068.
2 credits.
Fall 2015. Jones-Walker.

## EDUC 180. Honors Thesis

A 2-credit thesis is required for students completing special honors majors including educational studies. The thesis may be counted for 2 credits in educational studies or for 1 credit in

## Educational Studies

educational studies and 1 credit in the other discipline in the student's Honors Program. 2 credits.
Each semester. Staff.

Engineering

ERIK CHEEVER, Professor ${ }^{1}$<br>CHEN-HUAN CHIANG, Visiting Assistant Professor<br>ERICH CARR EVERBACH, Professor and Chair<br>NELSON A. MACKEN, Professor<br>ARTHUR E. McGARITY, Professor<br>LYNNE ANN MOLTER, Professor<br>FARUQ M.A. SIDDIQUI, Professor<br>MATTHEW A. ZUCKER, Assistant Professor<br>MICHAEL PIOVOSO, Visiting Professor<br>ANN RUETHER, Academic Support Coordinator<br>EDMOND JAOUDI, Electronics, Instrumentation, and Computer Specialist<br>GRANT SMITH, Mechanician<br>CASSY BURNETT, Administrative Coordinator

${ }^{1}$ Absent on leave, fall 2014.

The professional practice of engineering requires creativity and confidence in applying scientific knowledge and mathematical methods to solve technical problems of ever-growing complexity. The pervasiveness of advanced technology within our economic and social infrastructures demands that engineers more fully recognize and take into account the potential economic and social consequences that may occur when significant and analytically well-defined technical issues are resolved. A responsibly educated engineer must not only be in confident command of current analytic and design techniques but also have a thorough understanding of social and economic influences and an abiding appreciation for cultural and humanistic traditions. Our program supports these needs by offering each engineering student the opportunity to acquire a broad yet individualized technical and liberal education.

## The Academic Program

As stated in the introduction of this catalog, Swarthmore seeks to help its students realize their full intellectual and personal potential, combined with a deep sense of ethical and social concern.
Within this context, the Engineering Department seeks to graduate students with a broad, rigorous education, emphasizing strong analysis and synthesis skills. Our graduates will be well rounded and understand the broader impacts of engineering. They will have the skills to adapt to new technical challenges, communicate effectively, and collaborate well with others.
The Engineering Department and its students provide to the College community a unique perspective that integrates technical and nontechnical factors in the design of solutions to multifaceted problems.

## Objectives

Graduates with the bachelor of science degree in engineering are prepared to:

- Be flexible and resourceful, learn and apply new knowledge, and adapt successfully to novel circumstances and challenges.
- Communicate and work effectively with people with a broad variety of backgrounds at both a technical and nontechnical level.
- Apply engineering principles and methodology to the design and analysis of systems and to the solution of a wide variety of problems.
- Consider scientific, technologic, ethical, societal, economic, political and/or environmental issues in a local or global context.


## Course Major

Engineering majors must complete requirements from two categories: (1) 12 engineering credits and (2) 8 credits in math and science, normally 4 in math and 4 in science. No courses taken at Swarthmore and intended to satisfy these departmental requirements, except those taken fall semester in the first year, may be taken credit/no credit. The requirements are detailed below, with math and science discussed separately.

## Math and Science Requirement

To fulfill the math and science requirement for the engineering major, students must receive at least eight credits in math and science (for this purpose science is defined as biological, chemical, and physical sciences). All of the courses used to fulfill the requirement must be acceptable for the minimal major in the offering department. The science courses must include two credits of college level physics, and one credit of either biology or chemistry. All but one of the science courses must include a substantial laboratory component.
Students must have either placement or credit for: Elementary Single Variable Calculus (MATH 015); Further Topics in Single Variable Calculus or Advanced Topics in Single Variable Calculus (MATH 025 [025S] or 026); Several-Variable Calculus (MATH 033, 034, or 035); and Differential Equations (MATH 043 or 044). The minimal requirement is three credits in

Mathematics, excluding Statistics. Students are recommended to take Linear Algebra (MATH 027 or 028).

## Engineering Requirement

Students majoring in engineering are required to take seven engineering core courses; Mechanics (ENGR 006), Electric Circuit Analysis (ENGR
011), Linear Physical Systems Analysis (ENGR
012), Experimentation for Engineering Design
(ENGR 014), Fundamentals of Digital Systems
(ENGR 015), Thermofluid Mechanics (ENGR
041) and Engineering Design (ENGR 090).

Mechanics is usually taken in the spring of the first year. Electric Circuit Analysis is usually taken in the fall of the sophomore year. Linear Physical Systems Analysis and Experimentation for Engineering Design are usually taken in the spring of the sophomore year. Fundamentals of Digital Systems can be taken in the fall of the sophomore, junior or senior year. Thermofluid Mechanics can be taken in the fall of the junior or senior year. Engineering Design (ENGR 090) is the culminating experience for engineering majors and must be taken by all majors in spring of senior year. Submission and oral presentation of the final project report in Engineering Design constitutes the comprehensive examination for engineering majors.

## Elective Program for Course Majors

Each student devises a program of advanced work in the department in consultation with his or her adviser. These programs normally include five electives. The choice of electives is submitted for departmental approval as part of the formal application for a major in engineering during the spring semester of the sophomore year.
A student's elective program may or may not conform to some traditional or conventional area of engineering specialization (e.g., computer, electrical, mechanical, or civil). The department therefore requires each plan of advanced work to have a coherent, well-justified program that meets the student's stated educational objectives.
At most one Swarthmore course taught by a faculty member outside the Engineering Department can count as one of the 12 engineering credits required for the major.
Normally a maximum of 2.5 transfer credits that are preapproved by the Engineering Department will be accepted as partial fulfillment of the 12 engineering credits required for the major. Exceptions to this rule include students who transfer to Swarthmore and others with special circumstances; the amount of credit accepted in their cases will be determined on a case-by-case basis by the department chair.
Students should be aware that most lecture courses at other institutions carry only 0.75 Swarthmore credits, unless they include a full lab sequence. Students who wish to receive credit for courses
taken at other institutions, including those taken abroad, as partial fulfillment of the requirements for the major should consult their academic advisers and the chair of the Engineering Department as early as possible to ensure that all requirements are met.
The courses available for traditional elective programs include the following:

- Electrical engineering group. Electronic Circuit Applications, Physical Electronics, Electromagnetism, Communication Systems, Digital Signal Processing, VLSI Design, and Control Theory and Design. Students having an interest in digital systems might replace one or more of these courses with Principles of Computer Architecture, Mobile Robotics or Computer Vision.
- Computer engineering group. Principles of Computer Architecture, VLSI Design, Computer Graphics, Computer Vision, Introduction to Computer Networks, Mobile Robotics, Operating Systems, and Principles of Compiler Design and Construction. Students with an interest in computer hardware may include Electronic Circuit Applications, Physical Electronics, Digital Signal Processing, and Control Theory and Design.
- Mechanical engineering group. Mechanics of Solids, Fluid Mechanics, Heat Transfer, Thermal Energy Conversion, Solar Energy Systems, and Control Theory and Design.
- Civil and environmental engineering group. Basic preparation includes Mechanics of Solids, Structural Analysis, Soil and Rock Mechanics, and Water Quality and Pollution Control. Additional courses include Operations Research and Environmental Systems for those interested in the environment or urban planning; or Structural Design for those interested in architecture and construction. Other recommended courses include Solar Energy Systems, and Fluid Mechanics.


## Course Minor

## Academic Advising

Students interested in pursuing a minor must find a faculty member within the Engineering
Department to advise them. If possible, this faculty member should have interests that overlap the area of the minor. Students who encounter difficulties in identifying an adviser should seek the assistance of the chair of the Engineering Department. Students who plan to minor in engineering should regularly consult their engineering advisers. The sophomore papers of engineering minors should indicate the plan to minor and the courses chosen to fulfill the minor.

## Requirements

A minimum of 5 credits in engineering is required, of which at least 2 but not more than 3 must be core courses (ENGR 006, 011, 012, 014, 015, or 041, but not ENGR 090). The remainder will be

## Engineering

selected from elective course offerings within the department. Only those electives that count toward an engineering major can be counted toward a minor. No courses taken at Swarthmore and intended to satisfy these departmental requirements, except those taken fall semester in the first year, may be taken credit/no credit.
At most one Swarthmore course taught by a faculty member outside the Engineering Department can count as one of the 5 engineering credits required for the minor.
Supporting work in mathematics, physics, chemistry, and computer science is necessary only when designated as a prerequisite to an individual engineering course.
No directed readings may be used as one of the 5 credits for the minor.

A maximum of 1 transfer credit that is preapproved by the Engineering Department will be accepted as partial fulfillment of the minor requirements. Transfer credits will not count for one of the two courses used to fulfill the core course requirement of the minor. Students should be aware that most lecture courses at other institutions carry only 0.75 Swarthmore credits, unless they include a full lab sequence. Students who wish to receive credit for courses taken at other institutions, including those taken abroad, as partial fulfillment of the requirements for the minor should consult their academic advisers and the chair of the Engineering Department as early as possible to ensure that all requirements are met. No culminating experience will be required. Only students pursuing the major in engineering may enroll in ENGR 090.

## Areas of Study

Although packaged selections of courses will be suggested as options for those interested in an engineering minor, students may tailor their programs to meet individual needs and interests in consultation with their advisers.

## Honors Major

Students with a B+ average among courses in the Division of Natural Sciences and Engineering may apply for an honors major in engineering. This B+ average must be maintained through the end of the junior year to remain in the Honors Program. A listing of preparations supported by existing engineering courses is appended. Credits from approved attachments or special topics courses may substitute for not more than 1 credit within any preparation.
Honors majors must complete the same requirements as course majors in engineering.
The honors major in engineering is a fourexamination program that includes three preparations in engineering (the major) and one minor preparation. Each area comprises 2 credits
of work. The preparations may include ENGR 090 and/or one other core course.
The minor preparation must comprise at least 2 credits of work approved by any department or program outside engineering.
Each major candidate must accumulate 12 credits in engineering, including ENGR 090, and the same number of science and math credits as required of course majors.
If one of the major preparations includes ENGR 090, it must be paired with an appropriately related upper-level engineering elective or a 1 -credit honors thesis to be completed in the fall semester of senior year. Honors thesis credit may not substitute for any of the 12 engineering credits required for the bachelor of science. Candidates who choose an honors thesis will complete at least 13 credits in engineering and 33 across the College. The two additional major preparations must each comprise two related, upper-level engineering electives. A précis of not more than 12 pages (including tables and figures) of each candidate's ENGR 090 project must be submitted by the end of the 10th week of the spring semester for mailing to the relevant honors examiner. The final ENGR 090 report will not be mailed to any examiner but may be brought to the oral examinations.

Senior honors study by engineering majors is not required.

## Honors Minor

Senior honors study is required for all engineering honors minors, except those who are also engineering course majors. For those not majoring in engineering, the senior honors study is the culminating experience. Course majors will not take senior honors study because ENGR 090 serves as the culminating experience.
Every engineering honors minor preparation must include two related upper-level engineering electives for which all prerequisites must be satisfied. If the student is not also an engineering course major, then senior honors study is also required. Credits from official attachments or special topics courses in engineering may substitute for not more than one of the two upperlevel courses within an engineering minor preparation.
Prerequisites to upper-level engineering electives may be waived by the department, depending on the student's documentation of equivalent work in another department at the time of application.
Prospective engineering majors and minors receive more specific information about Course and Honors Programs from the department each December. Additional information is also available on the Engineering Department website.

## Engineering

## Application Process Notes for the Major or the Minor

A form to aid in planning a proposed program of study is available on the department website. This form must be completed and submitted as part of the Sophomore Plan. All engineering courses are to be listed on this form in the appropriate semesters. Check prerequisites carefully when completing the program planning form. Courses, prerequisites and their availability are listed in the College Catalog. Note that many courses are offered yearly, others in alternate years, and some only when demand and staffing permit. An updated prospective two-year schedule is also available on the website.

## Courses Readily Available to Students Not Majoring or Minoring in Engineering

Problems in Technology (003), Art and Engineering of Structures (007), and How Do Computers Work? (008) are designed for students contemplating only an introduction to engineering. Mechanics (006) is primarily for prospective majors, but other interested students, particularly those preparing for careers in architecture or biomechanics, are encouraged to enroll.
Environmental Protection (004A), Operations Research (057), Solar Energy Systems (035), Water Quality and Pollution Control (063), Swarthmore and the Biosphere (004B), Environmental Systems (066), and Environmental Policy and Politics (004C) appeal to many students majoring in other departments, particularly those pursuing an environmental studies minor. Students interested in computers, including computer science majors or minors, may wish to consider Fundamentals of Digital Systems (015), Principles of Computer Architecture (025), Computer Graphics (026), Computer Vision (027), and Mobile Robotics (028). Students majoring in the physical sciences or mathematics may enroll routinely in advanced engineering courses.
Note that Engineering Methodology, Problems in Technology, Environmental Protection, Swarthmore and the Biosphere, Art and Science of Structures and How Do Computers Work? are not admissible as technical electives within an engineering major or minor but may be taken as free electives subject to the 20-course rule.

## Off-Campus Study

## Swarthmore's Central European Program in Krakow Poland

A program of study is available, normally in the spring of the junior year, at the Technical University of Krakow, Poland, for students interested in an engineering study abroad experience in a non-English-speaking country. Students take courses taught in English consisting of two engineering electives and a survey course

Environmental Science and Policy in Central and Eastern Europe, plus an intensive orientation course on Polish language and culture provided by the Jagiellonian University. Coordinator: Professor McGarity.

## Courses

ENGR 003. Problems in Technology
For students not majoring in science or engineering, this course will concentrate on the automobile and its impact on society. Class time will cover the principles of operation of vehicles and student lead discussions on related technical, political, social, and economic issues. Possible laboratory topics include evaluating alternative power systems (e.g., solar, hydrogen, and electric); investigating alternative fuels; and understanding existing automotive components. Enrollment is limited. Usually offered in alternate years.
Natural sciences and engineering practicum.
Writing course.
1 credit.
Not offered 2014-2015.

## 004: Environmental Courses for

 NonmajorsCourses numbered ENGR 004A-004Z serve all students interested in environmental science, technology, and policy. Indicated courses may be used to satisfy the writing course and natural sciences and engineering practicum requirements. Some may also meet requirements for minors in environmental studies or public policy and special majors in environmental science or environmental policy and technology. Similar courses are available through the College's off-campus study programs in Poland and Cape Town, South Africa.
These courses may not be used to satisfy requirements for the major or minor in engineering.

ENGR 004A. Environmental Protection
This course covers fundamentals of analysis for environmental problems in the areas of water pollution, air pollution, solid and hazardous wastes, water and energy supply, and resource depletion, with an emphasis on technological solutions. Topics include scientific concepts necessary to understand local and global pollution problems, pollution control and renewable energy technologies, public policy developments related to regulation of pollutants, and methods of computer-based systems analysis for developing economically effective environmental protection policies.
Eligible for ENVS credit.
1 credit.
Not offered 2014-2015

## ENGR 004B. Swarthmore and the

## Biosphere

An interdisciplinary seminar-style investigation of the role of Swarthmore College and its community within the biosphere, including an intensive fieldbased analysis of one major aspect of Swarthmore's interaction with its environment such as food procurement, waste disposal, or energy use. Student project groups explore the selected topic from various perspectives, and the class proposes and attempts to implement solutions. Faculty from various departments provide background lectures, lead discussions of approaches outlined in the literature, and coordinate project groups. This course is crosslisted in the instructors' departments and does not count toward distribution requirements.
1 credit.
Offered when demand and staffing permit.

## ENGR 005. Engineering Methodology

A course for those interested in engineering, presenting techniques and tools that engineers use to define, analyze, solve, and report on technical problems, and an introduction to department facilities. Designed for students who are potential majors as well as those interested only in an introduction to engineering. Although ENGR 005 is not required of prospective engineering majors, it is strongly recommended. This course cannot be used to fulfill the requirements for the engineering major or minor.
0.5 credit.

Fall 2014. Molter.
ENGR 006. Mechanics
This course covers fundamental areas of statics and dynamics. Elementary concepts of deformable bodies are explored, including stress-strain relations, flexure, torsion, and internal pressure. Laboratory work includes a MATLAB workshop, experiments on deformable bodies, and a trussbridge team design competition.
Prerequisite: MATH 015 and PHYS 3 strongly recommended.
1 credit.
Spring 2015. Siddiqui, Everbach.

## ENGR 007. Art and Engineering of

 StructuresThis introduction to the basic principles of structural analysis and design includes an emphasis on the historical development of modern structural engineering. It is suitable for students planning to study architecture or architectural history, or who have an interest in structures. This course includes a laboratory and is designed for students not majoring in engineering. Usually offered in alternate years.
1 credit.
Spring 2015. Siddiqui.

## ENGR 008. How Do Computers Work?

This course combines technical basics of digital systems and computer organization with a less technical overview of a range of topics related to computers. Class time will include a combination of lectures, student presentations and discussions, and hands-on design. Some of the topics covered include clusters and networks such as the Internet, file sharing programs such as iTunes and YouTube, and the history and future of computers. For students not majoring in engineering, no prerequisites.
1 credit.
Not offered 2014-2015.

## ENGR 009. Engineering and Scientific

 Applications of CalculusThis half-credit course will focus on mathematical applications of single variable calculus, mainly from engineering and physics; it may also include some examples from other sciences if there is student interest. In addition, ENGR 009 will include a review of relevant pre-calculus topics. It is designed to give capable and hard-working students the best chance to excel in calculus, and is recommended for students who are interested in real-world contexts where calculus is used, including (but not limited to) potential science and engineering majors.
The course will meet twice weekly for a total of 2.5 hours, and have little outside work associated with it. Most of the time in class will be spent solving problems and doing group work.
ENGR 009 may not be used to fulfill the requirements for the engineering major or minor, and is available only to students taking MATH 015 concurrently.
0.5 credit.

Not offered 2014-2015.

## ENGR 010. Fundamentals of Food

 EngineeringIn this course, we will study the scientific principles that will enable students to understand why a variety of ingredients, recipes, and cooking processes function the way they do, and why they sometimes don't work as well as expected. The
course will include lectures, demonstrations, and laboratory exercises. There are no prerequisites for this course, and it is open to all students, but it cannot be used to fulfill the requirements for a major or a minor in engineering.
1 credit.
Spring 2015. Molter.
ENGR 011. Electrical Circuit Analysis
The analysis of electrical circuits is introduced, including resistors, capacitors, inductors, op-amps, and diodes. The student will learn to develop equations describing electrical networks.
Techniques are taught to solve differential equations resulting from linear circuits. Solutions

## Engineering

will be formulated both in the time domain and in the frequency domain. There is a brief introduction to digital circuits and a laboratory.
Prerequisite: MATH 025/026 or its equivalent, or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Molter, Piovoso.

## ENGR 012. Linear Physical Systems

 AnalysisEngineering phenomena that may be represented by linear, lumped-parameter models are studied. This course builds on the mathematical techniques learned in ENGR 011 and applies them to a broad range of linear systems, such as those in the mechanical, thermal, fluid, and electromechanical domains. Techniques used include Laplace Transforms, Fourier analysis, and Eigenvalue/Eigenvector methods. Both transfer function and state-space representations of systems are studied. The course includes a laboratory.
Prerequisite: ENGR 011 or the equivalent or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Spring 2015. Cheever.

## ENGR 014. Experimentation for <br> Engineering Design

Students are introduced to measurement systems, instruments, probability, statistical analysis, measurement errors, and their use in experimental design, planning, execution, data reduction, and analysis. Techniques of hypothesis testing, confidence intervals, and single and multivariable linear and nonlinear regression are covered. This course includes a laboratory.
Prerequisite: Math 033 or equivalent or consent of instructor.
Natural sciences and engineering practicum. Writing course.
1 credit.
Spring 2015. McGarity, Macken.

## ENGR 015. Fundamentals of Digital

 SystemsThe course will introduce students to digital system theory and design techniques, including Boolean algebra, binary arithmetic, digital representation of data, gates, and truth tables. Digital systems include both combinational and sequential logic-consisting of flip-flops, finite state machines, memory, and timing issues. Students will gain experience with several levels of digital systems, from simple logic circuits to a hardware description language and interface programming in C . This course includes a laboratory.

Prerequisite: At least 1 credit in engineering or computer science or permission of the instructor. Natural sciences and engineering practicum. 1 credit.
Fall 2014. Zucker, Chiang.

## ENGR 019. Numerical Methods for

## Engineering Applications

(Cross-listed as MATH 024)
This course is geared towards students who want to know how to transform a set of equations on a page into a working computer program. Topics will include root finding, discrete and continuous optimization, gradient descent, solution of linear systems, finite element methods, and basic methods in computational geometry. We will also discuss how real numbers are represented by computers, especially insofar as they affect precision and accuracy of calculations. Techniques will be applied in a series of projects focused on engineering applications.
Prerequisite: MATH 025/026 or its equivalent, or permission of the instructor.
1 credit.
Spring 2015. Zucker.

## ENGR 020. Introduction to Computer

 NetworksThis course introduces the principles and practice of computer networking. Topics include the structure and components of computer networks, packet switching, layered architectures, physical layer, window flow control, network layer, local area networks (Ethernet, Token Ring, FDDI),
TCP/IP, error control, congestion control, quality of service, multicast, network security, wireless LANs and cellular wireless networks.
Prerequisite: ENGR 015 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015

## ENGR 022. Operating Systems

(See CPSC 045)
Prerequisite: CPSC 035 required. One of ENGR 025 or CPSC 031 is recommended.
Lab work required.
Natural sciences and engineering practicum.
1 credit.
Next offered when staffing permits.
ENGR 024. VLSI Design
This course is an introduction to the design, analysis, and modeling of digital integrated circuits, with an emphasis on hands-on chip design using CAD tools. The course will focus on CMOS technology and will cover both full custom and synthesis VLSI design. A laboratory is included.

Prerequisite(s): ENGR 015 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015.
ENGR 025. Principles of Computer Architecture
(Cross-listed as CPSC 052)
This course covers the physical and logical design of a computer. Topics include current microprocessors, CPU design, RISC and CISC, pipelining, superscalar processing, caching, virtual memory, assembly and machine language, and multiprocessors. Labs cover performance analysis via simulation and microprocessor design using CAD tools.
Prerequisite: One of ENGR 015, CPSC 031, CPSC 035.

Natural sciences and engineering practicum. 1 credit.
Spring 2015. Chiang.

## ENGR 026. Computer Graphics

 (See CPSC 040)Prerequisites: CPSC 035 and MATH 027 required or permission of the instructor. (MATH 027: Linear Algebra may be taken concurrently.) Natural sciences and engineering practicum. 1 credit.
Fall 2014. Danner.
ENGR 027. Computer Vision
(Cross-listed as CPSC 072)
Computer vision studies how computers can analyze and perceive the world using input from imaging devices. Topics include line and region extraction, stereo vision, motion analysis, color and reflection models, and object representation and recognition. The course will focus on object recognition and detection, introducing the tools of computer vision in support of building an automatic object recognition and classification system. Labs will involve implementing both offline and real-time object recognition and classification systems.
Prerequisites: ENGR 015 or CPSC 035. MATH
027 or 028(S) is strongly recommended.
Natural sciences and engineering practicum.
1 credit.
Spring 2015. Zucker.

## ENGR 028. Mobile Robotics

(Cross-listed as CPSC 082)
This course addresses the problems of controlling and motivating robots to act intelligently in dynamic, unpredictable environments. Major topics will include mechanical design, robot perception, kinematics and inverse kinematics, navigation and control, optimization and learning,
and robot simulation techniques. To demonstrate these concepts, we will be looking at mobile robots, robot arms and positioning devices, and virtual agents. Labs will focus on programming robots to execute tasks and to explore and interact with their environment.
Prerequisite: ENGR 015 or CPSC 035. MATH
027 or 028(S) is strongly recommended.
Natural sciences and engineering practicum.
Eligible for COGS credit.
1 credit.
Fall 2014. Zucker.

## ENGR 035. Solar Energy Systems

Fundamental physical concepts and system design techniques of solar energy systems are covered. Topics include solar geometry, components of solar radiation, analysis of thermal and photovoltaic solar collectors, energy storage, computer simulation of system performance, computer-aided design optimization, and economic feasibility assessment. This course includes a laboratory. Offered in the fall semester of alternate years.
Prerequisites: PHYS 004, MATH 015, or the equivalent or the permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015.
ENGR 041. Thermofluid Mechanics
This course introduces macroscopic thermodynamics: first and second laws, properties of pure substances, and applications using system and control volume formulation. Also introduced is fluid mechanics: development of conservation theorems, hydrostatics, and the dynamics of onedimensional fluid motion with and without friction. A laboratory and problem session is included.
Prerequisites: ENGR 006, 011, 012 and 014, or the equivalent.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Macken, Everbach.

## ENGR 057. Operations Research

(Cross-listed as ECON 032)
This course introduces students to mathematical modeling and optimization to solve complex, multivariable problems such as those relating to efficient business and government operations, environmental pollution control, urban planning, and water, energy, and food resources. Introduction to the AMPL computer modeling language is included. A case study project is required for students taking the course as a natural sciences and engineering practicum (ENGR 057). The project is optional for students taking the course as ECON 032.

## Engineering

Prerequisite: familiarity with matrix methods, especially solution of simultaneous linear equations, i.e., elementary linear algebra; but a full course in linear algebra is not required
Natural sciences and engineering practicum. 1 credit.
Fall 2014. McGarity.
ENGR 058. Control Theory and Design
This introduction to the control of engineering systems includes analysis and design of linear control systems using root locus, frequency response, and state space techniques. It also provides an introduction to digital control techniques, including analysis of A/D and D/A converters, digital controllers, and numerical control algorithms. A laboratory is included. Prerequisite: ENGR 012 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Spring 2015. Piovoso.

## ENGR 059. Mechanics of Solids

Internal stresses and changes of form that occur when forces act on solid bodies or when internal temperature varies are covered as well as state of stress and strain, strength theories, stability, deflections, photoelasticity, and elastic and plastic theories. A laboratory is included.
Prerequisite: ENGR 006 or the equivalent.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Siddiqui.

## ENGR 060. Structural Analysis

This course covers fundamental principles of structural mechanics including statically determinate analysis of frames and trusses, approximate analysis of indeterminate structures, virtual work principles, and elements of matrix methods of analysis and digital computer applications. A laboratory is included. Offered in the fall semester of alternate years.
Prerequisite: ENGR 006, or permission of the instructor
Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015.

## ENGR 061. Geotechnical Engineering:

 Theory and DesignSoil and rock mechanics are explored, including soil and rock formation, soil mineralogy, soil types, compaction, soil hydraulics, consolidation, stresses in soil masses, slope stability, and bearing capacity as well as their application to engineering design problems. A laboratory is included. Offered in the fall semester of alternate years.

Prerequisite: Grade of B or better in ENGR 006 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Fall 2014. Siddiqui.

## ENGR 062. Structural Design

This course covers the behavior and design of stee and concrete structural members. Topics will include a discussion of the applicable design codes and their applications to structural design. A laboratory is included. Normally offered in the spring semester of alternate years.
Prerequisite: ENGR 006, or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015

## ENGR 063. Water Quality and Pollution

 ControlStudents will study elements of water quality management and treatment of wastewaters through laboratory and field measurements of water quality indicators, analysis of wastewater treatment processes, sewage treatment plant design, computer modeling of the effects of waste discharge, stormwater, and nonpoint pollution on natural waters, and environmental impact assessment. Offered in the fall semester of alternate years.
Prerequisites: CHEM 010, MATH 025 or 026, or the equivalent or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Fall 2014. McGarity.
ENGR 066. Environmental Systems
Students will explore mathematical modeling and systems analysis of problems in the fields of water resources, water quality, air pollution, urban planning, and public health. Techniques of optimization including linear and integer programming are used as frameworks for modeling such problems. Dynamic systems simulation methods and a laboratory are included. Offered in the spring semester of alternate years.
Recommended: ENGR 057 or the equivalent, or the permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Spring 2015. McGarity

## ENGR 071. Digital Signal Processing

Students will be introduced to difference equations and discrete-time transform theory, the Ztransform and Fourier representation of sequences, and fast Fourier transform algorithms. Discretetime transfer functions and filter design techniques are also introduced. This course introduces the

## Engineering

architecture and programming of digital signal processors. A laboratory is included.
Prerequisites: ENGR 012 and ENGR 015 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015.
ENGR 072. Electronic Circuit Applications
The student will learn the fundamentals of practical electronic circuit design and construction for purposes of instrumentation and control. This includes diode applications, op-amps for amplification and filtering of electronic signals, and power MOSFET transistors as switching devices for actuators such as motors. Mixed signal devices (A/D and D/A converters) are introduced and used throughout the course. Students learn to program microcontrollers, including on-chip peripherals and the processing of interrupts.
Throughout the course, practical considerations of circuit design and construction are covered. This course includes a laboratory.
ENGR 012 is a prerequisite and ENGR 015 is a corequisite; either or both may be waived at the discretion of the instructor.
Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015.

## ENGR 073. Physical Electronics

Topics include the physical properties of semiconductor materials and semiconductor devices; the physics of electron/hole dynamics; band and transport theory; and electrical, mechanical, and optical properties of semiconductor crystals. Devices examined include diodes, transistors, FETs, LEDs, lasers, and pin photo-detectors. Modeling and fabrication processes are covered. A laboratory is included. Offered in the spring semester of alternate years. Prerequisite: ENGR 011 or PHYS 008 or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015.

## ENGR 074. Semiconductor Devices and

 CircuitsThis course explores the operation and application of semiconductor devices, including diodes, transistors (bipolar and field effect) and other devices. This includes terminal characteristics of semiconductor devices and circuits, including small signal models of single and multi-transistor amplifiers, and transistor-level modeling of operational amplifiers. The course also examines the speed and input-output characteristics of logic devices, the design of power circuits and problems of stability and oscillation in electronic circuits.

Prerequisite: ENGR 011 or permission of the instructor.
1 credit.
Not offered 2014-2015.

## ENGR 075, 076. Electromagnetic Theory I

 and IIThe static and dynamic treatment of engineering applications of Maxwell's equations will be explored. Topics include macroscopic field treatment of interactions with dielectric, conducting, and magnetic materials; analysis of forces and energy storage as the basis of circuit theory; electromagnetic waves in free space and guidance within media; plane waves and modal propagation; and polarization, reflection, refraction, diffraction, and interference. Offered in the fall semester of alternate years.
ENGR 076 will include advanced topics in optics and microwaves, such as laser operation, resonators, Gaussian beams, interferometry, anisotropy, nonlinear optics, modulation and detection. Laboratories for both courses will be oriented toward optical applications using lasers, fiber and integrated optical devices, modulators, nonlinear materials, and solid-state detectors.

## ENGR 075.

Prerequisites: ENGR 012, or PHYS 008, or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Molter.

## ENGR 076.

Prerequisite: ENGR 075 or a physics equivalent. Natural sciences and engineering practicum. 1 credit.
Offered when demand and staffing permit.
ENGR 078. Communication Systems
Theory and design principles of analog and digital communication systems are explored. Topics include frequency domain analysis of signals; signal transmission and filtering; random signals and noise; AM, PM, and FM signals; sampling and pulse modulation; digital signal transmission; PCM; coding; and information theory.
Applications to practical systems such as
television and data communications are covered. A laboratory is included. Offered in the spring semester of alternate years.
Prerequisite: ENGR 012 or permission of the instructor.

Natural sciences and engineering practicum. 1 credit.
Spring 2015. Molter.
ENGR 081. Thermal Energy Conversion
This course covers the development and application of the principles of thermal energy

## Engineering

analysis to energy conversion systems. The concepts of availability, ideal and real mixtures, and chemical and nuclear reactions are explored A laboratory is included. Offered in the spring semester of alternate years.
Prerequisite: ENGR 041 or permission of the instructor.
Natural sciences and engineering practicum.
1 credit.
Not offered 2014-2015.

## ENGR 083. Fluid Mechanics

Fluid mechanics is treated as a special case of continuum mechanics in the analysis of fluid flow systems. Conservation of mass, momentum, and energy are covered along with applications to the study of inviscid and viscous, incompressible, and compressible fluids. A laboratory is included. Offered in the spring semester of alternate years. Prerequisite: ENGR 041 or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Spring 2015. Macken.

## ENGR 084. Heat Transfer

Students are introduced to the physical phenomena involved in heat transfer. Analytical techniques are presented together with empirical results to develop tools for solving problems in heat transfer by conduction, forced and free convection, and radiation. Numerical techniques are discussed for the solution of conduction problems. A laboratory
is included. Offered in the fall semester of alternate years.
Prerequisite: ENGR 041 or permission of the instructor.
Natural sciences and engineering practicum. 1 credit.
Fall 2014. Macken.

## ENGR 086. Dynamics of Mechanical

 SystemsRigid-body kinematics and kinetics in plane and three-dimensional motion; dynamics using energy, momentum, and variational methods of analysis. Application to electrodynamic systems and transducers. Matlab is used as a modeling tool for describing the linear and nonlinear behavior of the systems considered. A laboratory is included.
Prerequisites: ENGR 006, 011, and 012; MATH 034/035 and 043/044; or permission of the instructor.

Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015.
ENGR 090. Engineering Design
Students work on a design project that is the culminating exercise for all senior engineering
majors. Students investigate a problem of their choice in an area of interest to them under the guidance of a faculty member. A comprehensive written report and an oral presentation are required. This class is available only to engineering majors.
Writing course.
1 credit.
Spring 2015. Staff.
ENGR 093. Directed Reading or Project Qualified students may do special work with theoretical, experimental, or design emphasis in an area not covered by regular courses with the permission of the department and a willing faculty supervisor.
1 credit.
Offered only with departmental approval and faculty supervision.

## ENGR 096. Honors Thesis

In addition to ENGR 090, an honors major may undertake an honors thesis in the fall semester of the senior year with approval of the department and a faculty adviser. A prospectus of the thesis problem must be submitted and approved not later than the end of junior year.
1 credit.
Offered only with departmental approval and faculty supervision.

ENGR 199. Senior Honors Study
Senior honors study is available only for engineering minors and must include at least 0.5 credit as an attachment to one of the courses in the engineering preparation. This course may be taken only in the spring of the senior year.
0.5 or 1 credit.

Offered only with departmental approval and faculty supervision.

## Preparation for Honors Examinations

The department will arrange honors examinations in the following areas to be prepared for by the combinations of courses indicated. Other preparations are possible by mutual agreement.

## Communications and Electromagnetic

 FieldsCommunication Systems
Electromagnetic Theory
Communications and Signal Processing
Communication Systems
Digital Signal Processing

## Computer Architecture

Fundamentals of Digital Systems
Principles of Computer Architecture

## Engineering

## Electromagnetic Theory

Electromagnetic Theory I
Electromagnetic Theory II

## Electronics

Electronic Circuit Applications
Physical Electronics
Environmental Systems
Operations Research
Environmental Systems
Heat Transfer and Fluid Mechanics
Heat Transfer
Fluid Mechanics
Integrated Electronics
Electronic Circuit Applications
VLSI Design
Mobile Robotics and Machine Vision
Computer Vision
Mobile Robotics
Signals and Systems
Control Theory and Design
Digital Signal Processing
Solar Thermal Systems
Solar Energy Systems
Thermal Energy Conversion or Heat Transfer

## Structural Analysis and Design

Structural Analysis
Structural Design

## Structural Mechanics

Mechanics of Solids
Structural Analysis
Structures and Soil
Structural Analysis
Geotechnical Engineering: Theory and Design
Thermal Energy Conversion and Heat
Transfer
Thermal Energy Conversion
Heat Transfer
Visual Information Systems
Computer Graphics
Computer Vision
Water Quality and Fluid Mechanics
Water Quality and Pollution Control
Fluid Mechanics
Water Quality and Supply Systems
Water Quality and Pollution Control
Environmental Systems

## English Literature

NATHALIE ANDERSON, Professor ${ }^{2}$
ELIZABETH BOLTON, Professor
NORA JOHNSON, Professor and Chair
PETER J. SCHMIDT, Professor
PHILIP M. WEINSTEIN, Professor ${ }^{3}$
CRAIG WILLIAMSON, Professor
RACHEL BUURMA, Associate Professor
ANTHONY FOY, Associate Professor
JILL GLADSTEIN, Associate Professor and Director of Writing Associates Program
BAKIRATHI MANI, Associate Professor
LARA COHEN, Assistant Professor
ERIC SONG, Assistant Professor
SANGINA PATNAIK, Instructor
ELAYNE BROWNE, Visiting Instructor (part time) ${ }^{5}$
DALE MEZZACAPPA, Visiting Instructor (part time) ${ }^{5}$
${ }^{2}$ Absent on leave, spring 2015.
Absent on leave, 2014-2015.
${ }^{5}$ Fall 2014.

This department offers courses in English literature, American literature, Native American literature, Anglophone literature, Asian and Asian American literatures, gay and lesbian literatures, drama, film, creative writing, critical theory, and journalism. The departmental curriculum includes the intensive study of works of major writers, major periods of literary history, and the development of literary types; it also provides experience in a variety of critical approaches to literature and dramatic art and explores certain theoretical considerations implicit in literary study, such as the problematics of canon formation and the impact of gender on the creation and reception of literary works.
Students who plan to do graduate work, to follow a course of professional training, or to seek teacher certification in English should see a member of the department for early help in planning their programs, as should students who plan to include work in English literature in a special or crossdisciplinary major, or in a program with a concentration.

## Requirements and Recommendations

## First-Year Seminars

The English Literature Department offers two kinds of first-year seminars. There are first-year seminars in composition and first-year seminars in literature. ENGL 001F is a first-year seminar in composition (academic writing.) These count as Humanities writing (W) courses but do not count towards a major or minor in English literature. All first-year seminars (both in composition and in literature) are limited to 12 students. First-year seminars in English literature are numbered ENGL 008A-Z and ENGL 009A-Z. These literature seminars are designed to emphasize in-depth study of literary texts from a variety of perspectives,
with careful attention to writing and maximum opportunity for class discussion. All first-year seminars in English count as Humanities W courses. Students may take only one first-year seminar in literature from the English Department, but they are welcome to take a first-year seminar in composition and a first-year seminar in English literature.

## Core Courses

We also offer core courses (CC), which are especially recommended for first- and second-year students, though they are open to all. CCs pay special attention to one or more of the following: close reading, historical context, secondary (i.e., theoretical or critical) readings, or genre. They are distinguished by their pedagogical emphasis rather than by course topic per se. Students are welcome to take more than one CC.
Students considering a major in English are strongly urged to take a first-year seminar in literature and one or two additional English courses during the sophomore year. Students need at least two graded literature courses from English to apply for the major. A core course or another mid-level English literature course is especially recommended. ENGL 070A-070Kwill not suffice as the second course when applying for a major. ENGL 005 Journalism Workshop does not count toward a major or minor in English literature. Majors and prospective majors should consult a member of the English Department for information about courses in other departments complementary to their work in English; work in foreign languages is especially recommended.

## Course Major

The work of a major in course consists of a minimum of nine units of credit in the department including

- ENGL 099 (taken fall of the senior year, no exceptions),
- at least three units in literature written before 1830 (such courses are marked with a *),
- and at least three in literature written after 1830.

Courses marked with a *** may be counted as pre1830 or post-1830 but not both. First-Year Seminars (ENGL 008 and 009A through Z), creative writing, journalism classes and AP credits do not count as part of the pre- or post-1830 requirement. Creative writing credits and/or a validated AP credit of 4 or 5 in Literature (not "Language") count towards the credits needed for a major in English Literature; however, ENGL 005 (Journalism) does not.

## Course Minor

The work of a minor in course consists of a minimum of five units of literature credit in the department including

- at least one unit in literature written before 1830 (such courses are marked with a *),
- and at least one in literature written after 1830.

Courses marked with a *** may be counted as pre1830 or post-1830 but not both. First-Year Seminars in literature (ENGL 008 and 009 A through Z), creative writing, journalism classes, and an AP credit in Literature do not count as part of the pre- or post-1830 requirement. Creative writing credits and/or a validated AP credit of 4 or 5 in Literature (not "Language") count towards the credits needed for a minor in English Literature; however, ENGL 005 (Journalism) does not.

## Honors Major

Majors in English who seek a degree with honors will, in the spring of their sophomore year, propose for external examination a program consisting of four fields: three in English and one in a minor.
The three preparations in the major (constituting six units of credit) will be constituted as follows:

- all three preparations will normally be done
through seminars (if approved by the department,
one preparation may be a thesis or creative writing portfolio);
- the program must include at least one Group I and one Group II seminar.
Honors majors, as part of their overall work in the department, must meet the general major requirement of 9 credits in English literature, including three units of credit in literature written before 1830 and three units of credit in literature written after 1830. First-year seminars, creative writing, and journalism classes do not count as pre- or post-1830 classes.
Students interested in pursuing honors within a faculty-approved interdisciplinary major, program,
or concentration that draws on advanced English courses or seminars should see the chair for early help in planning their programs.


## Honors Minor

Minors must do a single, two-credit preparation in the department, normally by means of a seminar (or under special circumstances, a creative writing portfolio); the thesis option is only available to majors.
Minors are required to do a total of at least five units of work in English (including their honors preparation), with at least one pre- and one post1830 credit. First-year seminars, creative writing, and journalism classes do not count as pre- or post-1830 classes.

## Double Majors

Students may, with the department's permission, pursue a double major either as part of the Course or Honors Program. Double majors must fulfill all the major requirements in both departments.
For a double major in honors, one of the majors is used as the honors major and the other is often used as the honors minor. See the department chair for further details.

## Special Major

Designed by the student in consultation with faculty advisers. If English is the central department, students must fulfill most of the regular requirements and have a minimum of 5 English Department credits as part of the special major. At least one of the 5 credits must be a pre1830 course and one a post-1830 course.
Students must consult with the various departments or programs involved in the special major and have all approve the plan of study. Only one integrative comprehensive exercise is required.
Students may also do a special honors major with four related preparations in different departments.

## Major with a Creative Writing Emphasis

Students who want to major in English literature with an emphasis in creative writing-whether course or honors majors-must complete three units of creative writing in addition to the usual departmental requirements of pre- and post-1830 units. The creative writing credits will normally consist of either

- three workshops (ENGL 070A, B, C, D, E, G, H, or J)
OR
- two workshops (ENGL 070A, B, C, D, E, G, H, or J) and ENGL 070K, Directed Creative Writing Projects

Students may count towards the program no more than one workshop offered by departments other than English literature. Admission into the program will depend upon the quality of the student's written work and the availability of faculty to supervise the work. Students who are interested in the program are urged to talk both with the department chair and with one of the department faculty who regularly teach the workshops.
For creative writing projects in the Honors Program, the 2-credit field will normally be defined as a 1-credit workshop (ENGL 070A, 070B, 070C, or 070 H ) paired with a 1-credit Directed Creative-Writing Project (ENGL 070K). The approximate range of pages to be sent forward to the examiners will be 20 to 30 pages of poetry or 30 to 50 pages of fiction. There will be no written examination for the creative writing project; the student's portfolio will be sent directly to the examiner, who will then give the student an oral examination during honors week. For purposes of the transcript, the creative writing project will be assigned a grade corresponding to the degree of honors awarded it by the external examiner. Students are advised that such independent writing projects must normally be substantially completed by the end of the fall semester of the senior year as the spring semester is usually the time when the senior honors study essay must be written.
Note: Creative writing and journalism classes do not count as pre- or post-1830 classes. ENGL 070A, 070B, 070C, 070H, and 070K are CR/NC courses (not graded).
For a more detailed description of the English Literature Creative Writing program and its history, see the English Department website or handouts available in the department office.

## Thesis/Culminating Exercise

## Course Majors

English 099, Senior Course Majors Colloquium, is open only to senior English literature course majors and required for them to take. It offers a structured and supportive environment for students writing their senior essays. The course will feature a mix of literature, criticism, theory, and methodology, plus guest visits by other members of the English Literature Department and possibly others, with the opportunity for students to discuss central issues in the field of literary and cultural history in preparation for their research and writing.
Under some circumstances a course major may elect to write a thesis. See the description under ENGL 098.

## Honors Majors

Honors majors will prepare a senior honors essay and take an Honors exam for each of their three English honors preparations.
Students who wish either to write a thesis or pursue a creative writing project under faculty supervision as part of the Honors Program must submit proposals to the department; the number of these ventures the department can sponsor each year is limited. Students who propose creative writing projects will normally be expected to have completed at least one writing workshop as part of, or as a prelude to, the project; the field presented for examination will thus normally consist of a 1credit workshop plus a 1-credit directed creative writing project. For further information, including deadlines for directed creative writing proposals, see rubric under ENGL 070K.

## Application Process Notes for the Major or the Minor

Applications for the major in English literature are considered in the spring of the sophomore year. Each student will, under the guidance of a faculty adviser, present a reasoned plan of study for the last two years. This plan will be submitted to the department and will be the basis of the departmental discussion of the student's application for a major. The plan will include a list of proposed courses and seminars that will satisfy the requirements for either the Course or Honors Program and a rationale for the program of study. Such applications are normally considered at a meeting of all department members. Each student is discussed individually. The department has never established a minimum grade point average, nor are certain courses weighted in this discussion more heavily than others. A record of less than satisfactory work in English would certainly give us pause, however, unless it were attributable to circumstances other than academic ability. Students who want to include the English major as part of a double major must have a record of strong work in both majors as well as in other courses.
Students are eligible for seminars in the department regardless of their choice of honors or course majors. Admission to seminars will be based on a student's prior academic work, her/his ability to interact well in a small class situation, and the shape of the larger course of study articulated in the Sophomore Plan. For oversubscribed seminars, priority will normally be given to honors majors and minors.
The minimum requirement for consideration for the major, minor, or admission to any seminar is the completion of at least two graded courses in English, not counting creative writing workshops. Applications for the major will be deferred until two graded literature courses are completed.

## Advanced Placement/International Baccalaureate Credit

A maximum of 2 credits may be awarded for combined AP and IB work.

## AP Credit

Students will receive credit for AP scores of 4 or 5 in English Lit/Comp which will count both toward graduation and toward the major requirements. AP credit is given for scores of 4 or 5 in English Lang/Comp but count only toward graduation and not toward the major requirements. If students take both exams and receive scores of 4 or 5 they will receive one credit for each exam.

## IB Credit

A maximum of one AP Literature credit is given for a score of 6 or 7 on the Higher Level English examination in the International Baccalaureate program. This credit will count both toward graduation and toward the major requirements.

## Off-Campus Study and Transfer Credit

Students wishing to study away from Swarthmore should consult with the department chair far enough in advance of such study to effect proper planning of a major or minor. In determining which courses of study will meet department criteria for requirements or credit toward a major or minor, the department will rely both on its experience in evaluating the work of students returning from these programs and on careful examination of course descriptions, syllabi, and schedules. Course credits for literature in English should be approved before you leave, but no course credits are finally awarded until you consult with the department upon your return to Swarthmore.
To find out who the course credits consultant is for English, contact the department chair.

## Teacher Certification

English majors may complete the requirements for English certification through a program approved by the State of Pennsylvania. For further
information about the relevant set of English and Educational Studies requirements, please refer to the Educational Studies section of the Bulletin.

## Life After Swarthmore

Students graduating with a major in English literature often go on to pursue graduate or professional studies or take up a wide variety of positions in the working world where strong reading, writing, and interpretive skills are at a premium-in the public or private sector, in government or in non-government organizations. Many study law, medicine, or journalism. We number among our graduates poets and novelists, social workers and scholars, news writers,
broadcast journalists and editors, grant-writers, doctors, and directors.

## Curriculum

The English Department courses are grouped together by historical period, genre, or course level as follows:
001-005 A, B, C, etc.: Academic writing courses and seminars that do not count toward the major 008 and 009 A, B, C, etc.: First-Year Seminars (counted as W courses)
010-096: Advanced courses including core courses
010, 011: Survey Courses in British Literature
014-019: Medieval
020-029: Renaissance and 17th Century
030-039: Restoration, 18th Century, and Romantic 040-049: Victorian to Modern
050-069: American (including African American, Asian American, and Native American)
070 A, B, C, etc.: Creative Writing Workshops
071A, B, C, etc.: Genre Studies
072-079: Comparative Literature/Literature in Translation
080-096: Critical Theory, Film, and Media Studies
097-099: Independent Study and Culminating Exercises
Over 100: Honors Seminars, Theses, etc. (open to juniors and seniors with approval of the department chair only)

## 001-005: Academic Writing <br> Courses

These courses are writing-intensive courses that count toward graduation credit but not toward the English major. They may not be substituted for a prerequisite course in English.

## ENGL 001C. Writing Pedagogy

(Cross-listed as EDUC 001C)
This seminar serves as the gateway into the Writing Associates Fellowship Program. Students are introduced to the theory and pedagogy of composition studies and the concept of reflective practice. The seminar asks students to connect theory with practical experience when assessing how best to engage with different student writers and different forms of academic prose. Students will interact with the complexity of their new positions as peer mentors while learning how to be a professional within this role. Topics covered include: the ethics of peer mentoring, active listening, development of written arguments, learning styles, and conferencing. This course is open only to those selected as WAs. It is a credit/no credit course. Meets distribution requirements but does not count toward the major.

Writing course.
1 credit.
Fall 2014. Gladstein.

## ENGL 001D. Writing Tutorial

Students enrolled in ENGL 001F or 001G, in consultation with the professor of these courses, may enroll in the tutorial. Students will set up an individual program to work with the professor on writing for the course or other courses. Students take the tutorial in conjunction with ENGL 001F or ENGL 001G, or they may take it in a subsequent semester.
0.5 credit.

Spring 2015. Staff.

## ENGL 001F. First-Year Seminar:

Transitions to College Writing
This class, limited to 12, introduces students to the different genres of writing required at the College. Through assignments and class readings students learn what they might need to transition from writing in high school to writing at Swarthmore.
Meets distribution requirements but does not count toward the major. Students may take ENGL 001F and an English Literature first-year seminar (ENGL $008 \mathrm{~A}-\mathrm{Z}$ and 009A-Z).
Writing course.
1 credit.
Fall 2014 .Staff. Spring 2016. Gladstein.

## ENGL 002A. Argument and Rhetoric

Across the Disciplines
This course examines the questions of rhetorical analysis in different academic genres. Through the reading of academic journal articles, popular press pieces, and texts on rhetoric and argument, students will both deconstruct and construct academic arguments as they are presented in different disciplines. The course will explore such topics as ethos, pathos, and logos; intended audience and how to use evidence to persuade that audience; what constitutes evidence and how evidence is utilized; the use of numbers to support or respond to an argument.
Meets distribution requirements but does not count toward the major.
Writing course.
1 credit.
Not offered 2014-2015.
ENGL 003A. Independent Study and Directed Reading in Writing Studies
Students who plan an independent study or a directed reading must consult with the appropriate instructor and submit a prospectus for such work before the beginning of the semester during which the study is actually done. The course is available only if a professor is free to supervise the project. 0.5 or 1 credit.

Staff.

## ENGL 005. Journalism Workshop

An introduction to news gathering, news writing, and journalism ethics. Students learn the values, skills, and standards crucial to high-quality journalism. They write conventional news stories, narratives, profiles, non-deadline features, trend stories, and point-of-view articles on a beat of their choosing. Guest speakers include award-winning reporters and editors. This course counts as a general humanities credit and as a writing course, but does not count as a credit toward a major or minor in English literature.
Writing course.
1 credit.
Fall 2014. Mezzacappa.

## 008 and 009: First-Year Seminars In English Literature

These courses are limited to 12 first-year students only. No student may take more than one. All count as Writing courses.
ENGL 009A. First-Year Seminar: Literature and Law
In this course we will explore the forms law and literature take as they work through similar concerns, determining how social systems should function and puzzling over the moments when they don't. When does fiction appropriate the law's penchant for articulating rights and defining relationships? And when does the legal imagination draw from literature? We will read works of tragedy, detection, confession and evasion as we sort through these questions, supplementing our conversation with critical legal theory, trauma studies, and case law.
Writing course.
1 credit.
Fall 2014. Patnaik.
ENGL 009D. First-Year Seminar: Nation and Migration
Drawing on novels, short stories and film produced by immigrant writers from South Asia, Africa, and the Caribbean, this course explores the ways in which identity and community is shaped in the modern world. How does the migrant/diasporic writer rewrite the English language to reflect questions of race and power, nationhood and citizenship, and histories of the past and present? Authors include Salman Rushdie, Edwidge Danticat, Chimananda Adichie and Mohsin Hamid.
Writing course.
1 credit.
Spring 2015 and spring 2016. Mani.
ENGL 009E. First-Year Seminar: Narcissus and the History of Reflection
Narcissism seems at once reprehensible and an unavoidable part of personhood. This course

## English Literature

investigates how, over the course of many centuries, the story of Narcissus has been reworked as a way to think about process of creative reflection and how we see ourselves in relation to others. At stake are questions of desire, gender, racial identities, and language. Authors include Ovid, Milton, Wilde, Freud, and Fanon; also visual art and film.
Writing course.
1 credit.
Fall 2014. Song.
ENGL 009G. First-Year Seminar: Comedy
This course covers a range of comic dramas and comic performances. It will introduce key theories about comedy as a genre and comic performance as a cultural practice. We will also work intensively on expository writing and revision. Likely texts include films, plays by Plautus, Shakespeare, Behn, Wilde, and Churchill; and materials on minstrelsy, genre theory, gender, and performance studies.
Writing course.
1 credit.
Spring 2015. Johnson.
ENGL 009H. First-Year Seminar: Portraits of the Artist
We will study a variety of works portraying artists in different cultures and contexts and media. The syllabus will vary each year but may include: Scheherazade as story-teller (Arabian Nights selections), Shakespeare (sonnets), Mozart (the movie Amadeus), Frida Kahlo's life and work, Lin-Manuel Miranda’s Tony awarding-winning musical In the Heights (2008). Selected background and critical materials will also be assigned.
Writing course.
1 credit.
Fall 2014. Schmidt.

## ENGL 009J. First-Year Seminar:

## Revolution and Revolt

What makes a revolution? How is it won or lostand who decides? This course investigates the literature of rebellion from the late 18th century's
"Age of Revolution" to the Occupy movement.
We will read the works of not only famous revolutionary leaders, but also infamous and obscure ones, including radical abolitionists, communists, anarchists, feminists, student activists, and more, asking how their writing both interprets the memory of previous revolutions and imagines possibilities beyond them.
Writing course.
1 credit.
Fall 2014 and fall 2015. Cohen.

ENGL 009M. First-Year Seminar: Jane

## Austen, Cultural Critic

We'll read Austen's major novels aligned with the 18th century fiction, politics, and philosophy to which she was responding; we'll also consider recent critical views on Austen and the ways films of the 1990s through the present engaged Austen's style and social critique.
Writing course.
1 credit.
Fall 2015. Bolton.

## ENGL 009Q. First-Year Seminar:

Subverting Verses
Once history, biography, fiction, philosophy, and even science could be written in verse without seeming peculiar or affected, but today the line between poetry and prose is sharply drawn. Or is it? This course will examine unconventional forms and uses of poetry-from Seneca's Oedipus to Dove's Darker Face of the Earth, from Chaucer's Tales to Seth's Golden Gate, from Perelman's verse essays to Forché's prose poems-to explore our assumptions about the nature of genre.
Writing course.
1 credit.
Fall 2015. Anderson.
ENGL 009S. First-Year Seminar: Black Liberty/Black Literature
How have African American writers told stories of freedom, and how have they tried to tell them freely? How has the question of freedom shaped the development of, and debates over, an African American literary tradition? Drawing upon fiction, poetry, personal narratives, and critical essays, we will examine freedom as an ongoing problem of form, content, and context in black literature from antebellum slavery to the Harlem Renaissance
Eligible for BLST credit.
Writing course.
1 credit.
Fall 2014 and spring 2016. Foy.
ENGL 009Z. First-Year Seminar: Close

## Reading and Its Discontents

We "close read" almost every day, in both the English literature classroom and in everyday life. But what do we really mean when we talk about close reading? And what might it mean for us to reject it? We will study the ways literary critics have read texts as different as John Donne poems, car ads, and Jane Austen novels, practice traditional and experimental forms of reading, and write in several forms.
Writing course.
1 credit.
Fall 2014 and fall 2015. Buurma.

## English Literature

## 010-099: Advanced Courses

These courses are open to freshmen and sophomores who have taken a writing course from any department on campus and to juniors and seniors without prerequisite.

## Core Courses

For fuller descriptions, see the following:
ENGL 010. Core Course: Survey I: Beowulf to Milton*
ENGL 035. Core Course: The Rise of the
Novel***
ENGL 040. Core Course: Victorian Literature and Victorian Informatic

ENGL 052A. Core Course: U.S. Fiction, 19001950

ENGL 052B. Core Course: U.S. Fiction, 1945 to the Present

ENGL 053. Core Course: Modern American Poetry
ENGL 059. Core Course: 19th Century American Novels
ENGL 061. Core Course: Fictions of Black America
ENGL 071D. Core Course: The Short Story in the U.S.

ENGL 076. Core Course: The World, the Text, and the Critic

## 014-019: Medieva

ENGL 010. Core Course: Survey I: Beowulf to Milton*
A historical and critical survey of poetry, prose, and drama from Beowulf to Milton. This will include British literature from the following periods: Anglo-Saxon, Middle English, Renaissance, and 17th century.
1 credit.
Fall 2015. Williamson.
ENGL 014. Old English/History of the Language*
(Cross-listed as LING 014)
A study of the origins and development of English-sound, syntax, and meaning-with an initial emphasis on learning Old English. Topics may include writing and speech, changing phonology and morphology, wordplay in Chaucer and Shakespeare, pidgins and creoles, and global English.
This course may be taken without the usual prerequisite course in English; however, it may not serve in the place of a prerequisite for other advanced courses.

Counts as humanities distribution credit under this listing.
1 credit.
Spring 2016. Williamson.

ENGL 016. Chaucer*
Readings in Middle English of most of Chaucer's poetry with emphasis on The Canterbury Tales and Troilus and Criseyde. The course attempts to place the poetry in a variety of critical and cultura contexts which help to illuminate Chaucer's art. Medieval cultural readings include Boethius' Consolation of Philosophy, and Andreas Capellanus’ The Art of Courtly Love.
1 credit.
Fall 2014. Williamson.

## 020-029: Renaissance and 17th Century

ENGL 020. Shakespeare*
Topics in this survey of Shakespeare's plays, including kingship, comedy and tragedy, family, sexuality, race, performance, language, and the rewriting of history. We will frequently return to the question of theater's place in early modern England, while also examining the place
Shakespeare holds in the cultures we inhabit. The list of plays may include Taming of the Shrew,
Henry V, Midsummer Night's Dream, Twelfth
Night, Measure for Measure, Hamlet, Othello, Lear, and The Tempest.
1 credit.
Fall 2014. Song. Fall 2015. Johnson.
ENGL 023. Renaissance Sexualities*
The study of sexuality allows us to pose some of the richest historical questions we can ask about subjectivity, the natural, the public, and the private. This course will explore such questions in relation to Renaissance sexuality, examining several sexual categories-the homoerotic, chastity and friendship, marriage, adultery, and incest-in a range of literary and secondary texts. 1 credit.
Fall 2014 and spring 2016. Johnson.
ENGL 026. Allegory and Allegoresis in the English Renaissance*
Allegory designates a mode of writing and of interpreting narratives. The decline of allegory marks a shift from medieval to modern culture, eventually giving way to realism. Yet allegory has never left us, as we continue to read allegorically to some degree. This course turns to the English Renaissance as a literary turning point. Readings
from The Faerie Queene, Paradise Lost, and Pilgrim's Progress; theoretical work by Walter Benjamin, Paul de Man, and others.
1 credit.
Spring 2015. Song.
ENGL 028. Milton*
Study of Milton's poetry and prose with particular emphasis on Paradise Lost.
1 credit.
Spring 2015. Song.

030-039: Restoration, 18th Century, and Romantic

ENGL 033. The Romantic Sublime
"The essential claim of sublime is that man[sic] can, in speech and feeling, transcend the human" (Weiskel). What does this transcendence look
like? How is it achieved? What resources does it offer us, and at what cost? Authors include Burke, Blake, the Wordsworths, Coleridge, Byron, the Shelleys, and Keats.
1 credit.
Fall 2015. Bolton.

## ENGL 035. Core Course: The Rise of the Novel***

We will follow development of the novel, from its origins in a multiplicity of diverse literary genres to its Victorian incarnation as a "realist" and middle-class form through its Modernist appropriation as high art and its subsequent return to multi-genre roots. Surveying the main critical narratives of the novel's "rise" or development, we will also see how the material form of the novel might offer us a counter-narrative to conventional interpretations of the genre's origins.
1 credit.
Fall 2014 and fall 2015. Buurma.

## 040-049: Victorian to Modern

ENGL 040. Core Course: Victorian
Literature and Victorian Informatics
This mid-level core course offers a survey of canonical Victorian literature through the lens of theories of knowledge organization and the history of information practices. We will read texts by authors like Charlotte Brontë, John Stuart Mill, Charles Darwin, George Eliot, Christina Rossetti, Alfred Tennyson, Oscar Wild, and others. This class will focus on developing techniques of close, middle-distance, and distant reading, with an emphasis on exploring new digital tools for organizing, curating, decomposing, and remaking literary texts.
1 credit.
Fall 2014 and spring 2016. Buurma.
ENGL 046. Tolkien and Pullman and Their Literary Roots***
A study of Tolkien's Lord of the Rings and Pullman's His Dark Materials in the context of their early English sources. For Tolkien, this will include Beowulf, Old English riddles and elegies, and Sir Gawain and the Green Knight. For Pullman, this will include Biblical stories of the Creation and Fall, Milton's Paradise Lost, and selected Blake poems. Some film versions will be included.
1 credit.
Spring 2015 and spring 2016. Williamson.

ENGL 048. Contemporary Women's Poetry
"Merely the private lives of one-half of humanity." Thus Carolyn Kizer defines the 20th-century revolution through which women poets give voice to the previously unspeakable and explore the political implications of the supposedly personal. This course considers a variety of poetic styles and stances employed by women writing in English today-feminist or womanist, intellectual or experiential, lesbian or straight, and mindful of ethnic heritage or embracing the new through artistic experimentation.
1 credit.
Spring 2016. Anderson.
050-069: American (Including African American, Asian American, and Native American)
ENGL 051. Early American Literature * This course examines American literature from its earliest recorded oral traditions to the end of the Civil War. "Early American literature" is something of a paradox during a time when definitions of what constituted both "American" and "literature" were hotly debated. Our readings will explore how writers interpreted these concepts across a wide range of genres, including Native American origin stories, exploration and travel writing, slave narratives, political manifestoes, poetry, and novels.
1 credit.
Spring 2015 and spring 2016. Cohen.
ENGL 052A. Core Course: U.S. Fiction, 1900-1950
This course focuses on well-known and newly recognized novelists important for this period: Baum, London, Wharton, Cather, Hemingway, Hurston, Loos, Hammett, McCullers, and Steinbeck. There will be attention to innovations in the novel as a literary form and to the ways in which writers engage with their historical context, particularly regarding issues of immigration, race, community, and redefinitions of gender roles and the meaning of "American."
1 credit.
Fall 2014. Schmidt.
ENGL 052B. Core Course: U.S. Fiction, 1945 to the Present
Major authors and emerging figures, with attention to innovations in the novel as a literary form and the ways in which writers engage with their historical context, both within the U.S. and globally. The list of authors varies, but may include Eudora Welty, James Agee, Philip Roth, Gish Jen, Lorrie Moore, Sandra Cisneros, Richard Powers, Justin Torres, Gary Shteyngart, Patricia Highsmith, Neil Gaiman (American Gods). 1 credit.
Spring 2015. Schmidt.

ENGL 053. Core Course: Modern American Poetry
An introductory survey of the full range of 20thcentury American poetry, but we will commence with Whitman and Dickinson, two key predecessors and enablers. The emphasis will be on particular poets and poems, but a recurrent theme will be poetry's role in a democracy: is poetry really an esoteric art for the "educated" few, as some imply, or has poetry in the 20th century played a crucial role in shaping both democratic citizens and a sense of democratic culture?
1 credit.
Spring 2015. Schmidt.

## ENGL 059. Core Course: 19th Century

 American NovelsWhen we think of 19th century American literature, we tend to think of novels: Herman Melville's Moby-Dick, Harriet Beecher Stowe’s Uncle Tom's Cabin, James Fenimore Cooper's
The Last of the Mohicans, and so on. But the novel was still a new and somewhat dubious genre in the nineteenth-century U.S., and its identity was not yet settled. In this course, we will read some of the "big" books of the period, but we will try to read them as they might have been read at the time, as experimental controversial works. Texts may include Hawthorne's The House of the Seven Gables,William Wells Brown's Clotel, and Helen Hunt Jackson's Ramona, in addition to those listed above.
1 credit.
Spring 2015. Cohen

## ENGL 060. Early African American Print

Cultures*
African American literature has traditionally been defined in terms of authorship, but how might we expand this definition to consider editing,
illustration, printing, circulation, and reading? And how might this expanded definition change our understanding of the field? This course will examine a wide variety of 18th- and 19th-century African American print culture, including poetry, sermons, manifestos, newspapers, slave narratives, and novels.
Eligible for BLST credit.
1 credit.
Fall 2014. Cohen.

## ENGL 061. Core Course: Fictions of Black

 AmericaA survey of significant novels and short fiction by African American writers since the Harlem Renaissance. We will examine the textual practices, cultural discourses, and historical developments that have shaped a black literary tradition, paying close attention to the dynamic interaction among artist, culture, and community. Eligible for BLST credit.

1 credit.
Fall 2014. Foy.
ENGL 062. Classic Black Autobiography
An introduction to African American
autobiography, focusing on personal narratives produced in the century between the Emancipation Proclamation and the Civil Rights Act.
Emphasizing the significance of autobiography as a practice rather than simply a document, we will consider the textual strategies that black narrators employ, as well as the contextual concerns that shape them.
Eligible for BLST credit.
1 credit.
Spring 2015. Foy.

## ENGL 063. Contemporary Black

Autobiography
Since 1965, African American autobiography has been characterized by both formal innovation and a thematic concern with the meaning of blackness after the Civil Rights Movement; this course examines these developments. Authors may include Malcolm X, Angela Davis, James
Baldwin, John Edgar Wideman, Adrienne
Kennedy, and Audre Lorde.
Eligible for BLST credit.
1 credit.
Spring 2016. Foy.

## ENGL 064. The New Negro Versus Jim

 CrowWhat is the relationship between the birth of a "New Negro" and the birth of Jim Crow? This advanced course focuses closely on the florescence of African American literature from the late 19th century through the Harlem Renaissance, even as the strictures and structures of Jim Crow hardened.
Eligible for BLST credit.
1 credit.
Fall 2015. Foy.
ENGL 065. Asian American Literature
How does Asian American literature function as the site of key debates about ethnic and national identity? This course explores Asian American cultural production over the past 50 years, beginning with Flower Drum Song (1961), the first Hollywood film starring an all-Asian American cast, and ending with the Pulitzer Prizewinning author Jhumpa Lahiri's short stories. Authors include Maxine Kingston, Chang-Rae Lee, David Henry Hwang, and Theresa HakKyung Cha.
1 credit.
Spring 2015. Mani.

ENGL 068. Black Culture in a "Post-Soul" Era
Since the 1970s, younger generations of African American writers, artists, and intellectuals have struggled over the meaning of Blackness in the wake of the Civil Rights and Black Power movements that preceded them. Supported by a handful of historical and critical studies, we will examine how black novelists, playwrights, and poets in the 'post-soul' era have dealt with a complex of shifting and interconnected concerns, including the imperatives of racial representation in a society increasingly driven by mass consumption and global media, the contentious discourses of sexual politics, and the polarization of classes within Black America.
Eligible for BLST credit.
1 credit.
Spring 2015 and spring 2016. Foy.

## 070: Creative Writing Workshops

Regular creative writing workshops are limited to 12 and require the submission of writing samples in order for students to apply for them. Workshops marked with a \# combine a balance of substantial literary analysis of models along with creative writing exercises geared to the models; these workshops are limited to 15 and, do not require the submission of manuscripts. Students may normally take only one workshop at a time. ENGL 070A and 070B may normally be taken only once. Creative writing courses do not count as pre-or post-1830 classes.
ENGL 070A. Poetry Workshop.
This workshop emphasizes each individual's distinctive voice within the context of contemporary poetics as students work through formal exercises and thematic experiments, reading and commenting on each other's writing. Attendance at readings required. Limited to 12 students; writing sample due immediately after fall break. Admission and credit determined by instructor.
Graded credit / no credit.
1 credit.
Spring semester each year.
Spring 2015. Williamson. 2016. Anderson.

## ENGL 070B. Fiction Workshop

This workshop emphasizes development of character, voice, and narrative structure within the context of contemporary literature. Students work through exercises and prompts, reading and commenting on each other's writing. Attendance at readings required. Limited to 12 students; writing sample due immediately after fall break. Admission and credit determined by instructor. Graded credit/no credit.
1 credit.

Spring semester each year.
Spring 2015. Bolton. Spring 2016. Staff.
ENGL 070C. Advanced Poetry Workshop
Poetry books often represent their authors' conscious statements, made through selection, organization, and graphic presentation. In this workshop, students design and complete their own volumes. Attendance at readings required. Prerequisite: English 070A, 070D, 070E, 070G, or
070J, or similar workshop elsewhere. Limited to 12. Admission and credit determined by instructor. Graded credit/no credit.
1 credit.
Fall 2014. Anderson.
ENGL 070E. Lyric Encounters
Matthew Arnold called it "a criticism of life"; Dylan Thomas, "a naked vision." Emily Dickinson, a blow, "If I feel physically as if the top of my head were taken off." Students examine lyrics through literary analysis, then shape their own criticisms, visions, cerebral explosions. Attendance at readings required. Pre-requisite: any W course. Limited to15.
1 credit.
Fall 2014. Anderson.

## ENGL 070H. Advanced Fiction Writers'

 WorkshopStudents will experiment with established writers' methods of illuminating characters and narratives as well as revising to produce polished work. Attendance at readings required. Prerequisite: ENGL 070B or similar workshop elsewhere. Limited to 12. Admission and credit determined by instructor.
Graded credit/no credit.
1 credit.
Fall 2015. Staff.
ENGL 070J. The Poetry Project: Research and Development
Behind the poem's eloquence, there's often a structure-scientific, historical, philosophical, literary-supported by focused research. This course examines poetry based on research, and students explore archival resources to write poems suggested by their own researches. Attendance at readings required. Pre-requisite: any W course. Limited to 15 .
1 credit.
Fall 2015. Anderson.
ENGL 070K. Directed Creative Writing Projects
Supervised individual work in fiction or poetry for course or Honors students. Candidates submit proposals the semester before the project is undertaken. A limited number of proposals can be accepted. Students must consult with creative writing faculty before applying. See the

## English Literature

department's creative writing page for more information.
Graded credit/no credit.
1 credit.
Staff.

## ENGL 070L. Creative Writing Outreach

(Cross-listed as EDUC 073)
Where do arts, education and activism meet? In this course students will explore artistic affinities through creative writing activities and consider arts education and advocacy through diverse texts. Students will cultivate skills necessary to becoming Teaching Artists in imaginative writing at the elementary level through coursework as well as through volunteer placement in local schools. Topics covered include: creative curriculum development and presentation, educational climate for grades $\mathrm{K}-5$ and teaching pedagogy.
Limited to 12 .
EDUC 014 is required to receive Educational Studies Department credit for this course. 1 credit

Fall 2014. Browne.

## 071A-Z: Genre Studies

ENGL 071C. The Short Story
As we read widely in the 19th- and 20th-century short story, we'll focus on technical developments as well as certain recurring preoccupations of the genre: fragmentation and reconstruction, the staging of an encounter between the ordinary and the extraordinary, and the refutation of time and mortality.

1 credit.
Fall 2014. Bolton

## 072-079: Comparative Literature/Literature

 in Translation
## ENGL 076. Core Course: The World, the

 Text, and the CriticThis core course introduces students to critical approaches in contemporary global literatures. We will explore how literature represents the relationship between "the West and the Rest," and examine our own relation to colonial and postcolonial histories. Novels include White Teeth, The God of Small Things, and Heart of Redness. 1 credit.
Fall 2015. Mani.

## ENGL 077. Politics of Solidarity: South

## Asians in America

How do racial minorities create and inhabit new forms of identity and citizenship? In what ways do changing discourses of multiculturalism reframe and constrain new ethnicities? Surveying a century of migration from the South Asian subcontinent to the United States, we will explore how new forms of political community are shaped by gender,
religion, sexuality and class. Readings include: Prashad, Karma of Brown Folk; Shankar, Desi Land; DasGupta, Unruly Immigrants; and Bald, Bengali Harlem.
1 credit.
Spring 2015. Mani.

## 080-096: Critical Theory, Film, and Media

## Studies

Please see the film and media studies section for additional course listings.

## ENGL 083. On Violence

A dark lexicon emerged out of the 20th century: total war, genocide, and collateral damage were new terms invented to describe "new" versions of atrocity. But does our ability to name violence mean that we understand it any better? This course explores the aesthetic and narrative structures of violence in modern fiction, film, critical theory, and law. Even as we recognize texts as pertaining to distinct modes (modernism, postmodernism, contemporary literature) we will explore how histories of colonialism and racism condition formal innovation.
1 credit.
Spring 2015. Patnaik

## ENGL 086. Theory Capstone: Discipline +

 Culture(Cross-listed as INTP 091)
What kind of object of knowledge and study is culture? This class pays special attention to the various ways culture has been constructed as an object of disciplinary knowledge in English and history departments over the last forty years. How and why has cultural studies come to seem identified with certain types of political and social critique, and what is the history and present of this kind of critique? Expect visiting speakers, group endeavors, comparative methodologies, studies of materiality, digital methods, and more.
1 credit.
Spring 2015. Buurma and Azfar.

## ENGL 090. Queer Media

(Cross-listed as FMST 046 and GSST 020)
The history of avant-garde and experimental media has been intertwined with that of gender non-conformity and sexual dissidence, and even the most mainstream media forms have been queered by subcultural reception. Challenging Hollywood's heterosexual presumption and mass media appropriations of lgbt culture, we will examine lgbt aesthetic strategies and modes of address in contexts such as the American and European avant-gardes, AIDS activism, and transnational and diasporan film through the lens of queer theory.
Eligible for INTP credit.

1 credit.
Fall 2014. White.

## 097-099: Independent Study and Culminating Exercises

## ENGL 097. Independent Study and

## Directed Reading

Students who plan an independent study or a directed reading must consult with the appropriate instructor and submit a prospectus before the semester in question. Normally limited to juniors and seniors and available only if a professor is free to supervise the project.
Section 01 for 0.5 credit.
Section 02 for 1 credit.
Staff.

## ENGL 098. Senior Thesis

Course majors may pursue a thesis for 1 (40-50 pages) or 2 ( $80-100$ pages) credits. A proposal for the project must be submitted in April of the junior year. Before submitting this proposal, course majors must consult with a prospective faculty supervisor. This work does not replace ENGL 099, required of every course major. Available only if a professor is available to supervise the project.
Section 01 for 1 credit.
Section 02 for 2 credits.
Staff.

## ENGL 099. Senior Course Majors

Colloquium***
This colloquium is open to senior course majors in English Literature. Focusing on the senior essay required to complete the major, this class features guest lectures by faculty and critical readings on literary theory and methodology. Short writing assignments in this class will build towards the senior essay, as students work in peer-centered environments as well as individually with the instructor. Students will complete their senior essays by the end of the fall semester.
Note: This colloquium may count as either a preor a post-1830 credit, depending on the final essay topic. ENGL 099 will be offered for seniors every fall.
1 credit.
Fall 2014. Mani. Fall 2015. Staff.

## Seminars

Honors seminars are open to juniors and seniors only and require approval of the department chair. Priority is given to honors majors and minors.
Group I (pre-1830) seminars are indicated by an *; all others are Group II (post-1830).

## ENGL 101. Shakespeare*

Study of Shakespeare as a dramatist. The emphasis is on the major plays, with a more rapid reading of much of the remainder of the canon. Students are
advised to read widely among the plays before entering the seminar. Students who have taken ENGL 020 may take this seminar for 2 credits. 2 credits.
Fall 2014 and spring 2016. Johnson.

## ENGL 102. Chaucer and Medieval

Literature*
A study of medieval English literature with an emphasis on Chaucer. Texts will include Beowulf, Old English poems, Sir Gawain and the Green Knight, Chaucer's Canterbury Tales and Troilus and Criseyde, Margery Kempe’s autobiography, selected mystery plays and Everyman, and Arthurian materials. Some works will be in Middle English; others, in translation.
2 credits.
Fall 2015. Williamson.
ENGL 110. Romanticism*
We'll read the women poets of the period (Smith, Robinson, Baillie, Wordsworth, Hemans, and
L.E.L.) alongside their more famous male contemporaries (Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats) in order to explore issues of concern to both: formal innovation, colonial expansion, (counter) revolutionary politics.
Eligible for GSST credit.
2 credits.
Spring 2015. Bolton.
ENGL 111. Victorian Literature and Culture
This research-intensive seminar focuses on the Victorian novel as both a genre and a material object in its print cultural context, setting this approach within the broader world of Victorian literature and culture in order to examine the ways in which the novel was both product and producer of its historical moment. Readings include novels by authors like George Eliot, Anthony Trollope, Elizabeth Gaskell, Wilkie Collins, George Meredith, Thomas Hardy, Bram Stoker, and Margaret Oliphant.
2 credits.
Spring 2015 and spring 2016. Buurma.
ENGL 114. Early American Media Culture*
This course borrows some of the methods of new media studies to look anew at the multimedia culture of the 18th- and 19th-century United States. We will study handbills, wampum, daguerreotypes, political cartoons, maps, songbooks, and counterfeit money, as well as literary texts that thematize this rich media culture. 2 credits.
Fall 2015. Cohen.
ENGL 116. American Literature
Our focus this year will be on the long, grand, and problematic tradition of U.S. Southern literature,

## English Literature

especially fiction in both comic and tragic modes as it developed after the Civil War to the present.
2 credits.
Fall 2014. Schmidt.

## ENGL 117. Theories and Literatures of Globalization

This seminar examines the literary and cultural dimensions of globalization. Pairing novels and short stories by major global writers with
ethnographic and historical texts, we will examine the relationship between colonialism and postcolonialism; modernity and globalization; racial formation and the nation-state. By developing a critical engagement with theories of identity and difference, we will explore the ways in which global literatures engender new politics of nationalism, race, and sexuality.
2 credits.
Fall 2014 and spring 2016. Mani.

## ENGL 118. Modern Poetry

A study of the poetry and critical prose of Yeats, Eliot, Stevens, and H.D., in an effort to define their differences within the practice of
"modernism" and to assess their significance for contemporary poetic practice.
2 credits.
Fall 2015. Anderson.

## ENGL 119. Black Cultural Studies

How have black writers both represented and theorized a series of tensions characterizing
African American culture since the end of slavery-between past and present, roots and routes, folk and modern, sound and vision, city and country, nation and diaspora, culture and capital, people and power? Motivated by such concerns, this seminar will examine approaches to African American literature that are historical, cultural, and theoretical. Prior work in African American literature and/or Black Studies is recommended.
Eligible for BLST credit.
2 credits.
Fall 2015. Foy.
ENGL 180. Thesis
A major in the Honors Program may, with department permission, elect to write a thesis as a substitute for one seminar. The student must select a topic and submit a plan for department approval no later than the end of the junior year. Normally, the student writes the thesis of 80 to 100 pages, under the direction of a member of the department. The 2 -credit thesis project may take place over 1 or 2 semesters.
Section 01 for 1 credit.
Section 02 for 2 credits.
Staff.

ENGL 183. Independent Study
Students may prepare for an honors examination in a field or major figure comparable in literary significance to those offered in the regular seminars. Independent study projects must be approved by the department and supervised by a department member. Deadlines for the receipt of written applications are the second Monday in November and the first Monday in April.
2 credits.
Staff.

| Coordinator: | ELIZABETH BOLTON (English Literature) <br> Cassy Burnett (Administrative Coordinator) |
| :---: | :--- |
| Committee: | Timothy Burke (History) <br> Peter Collings (Physics and Astronomy)${ }^{1^{*}}$ |
| Giovanna Di Chiro (Political Science) |  |
| Erich Carr Everbach (Engineering) |  |
| Eric Jensen (Physics and Astronomy) |  |
|  | José-Luis Machado (Biology) <br> Arthur McGarity (Engineering)* |
|  | Rachel Merz (Biology) <br> Carol Nackenoff (Political Science) <br>  <br>  <br>  <br> Jennifer Peck (Economics) <br> Christine Schuetze (Sociology and Anthropology) |
|  | Mark Wallace (Religion) |

${ }^{1}$ Absent on leave, fall 2014.
${ }^{3}$ Absent on leave, 2014-2015.
*Member, 2014-2015 Tri-College Environmental Studies Steering Committee.

Profound anthropogenic changes are occurring in the land, water, and air around us, and education needs to respond to these changes. Swarthmore's heritage of social concern compels us to educate students so that they are well informed about vital, current issues and capable of full political participation. The College has a responsibility to provide means for the study of environmental problems and to encourage students to develop their own perspectives on these problems. The interdisciplinary Environmental Studies Program is one way the College meets these responsibilities.
Environmental studies offers numerous opportunities for rigorous interdisciplinary work, addressing the scientific, engineering, social, political, economic, literary, and philosophical dimensions of environmental topics. The minor helps guide students to the many academic fields that afford a perspective on environmental problems and enables them to explore questions most compelling to them from the vantage point of various disciplines.
The Swarthmore College Environmental Studies Program cooperates with Bryn Mawr and Haverford colleges to offer a tri-college environmental studies interdisciplinary minor, involving departments and faculty from the natural sciences, the social sciences, and the humanities. The tri-college environmental studies program aims to bring students and faculty together to explore the interactions among earth systems, human societies, and local and global environments.

## The Academic Program

An interdisciplinary course minor in environmental studies is available to all students, consisting of an integrated program of an introductory course, four additional courses, and a
capstone seminar, taken in addition to a regular major.
The expectation is that minors will take the introductory course, Introduction to Environmental Studies, early in their program and before the senior year. Apart from the introductory course and the capstone seminar, there are three categories of courses: environmental science/technology, environmental social science/humanities, and cognate/interdisciplinary. Lists of courses belonging to each of these categories appear in the course catalog and the program's website. Environmental Studies minors are generally expected to take two courses in environmental science/technology (one of which must be a lab science) and two courses in environmental social science/humanities. In consultation with the program coordinator, however, up to two courses toward the minor may be chosen from the list designated cognate and interdisciplinary courses or courses taken at other institutions (domestic and foreign). Students should regularly check the program's website for additions and changes to course lists; the website will also have links to qualified and available environmental science, social science, arts and humanities courses at Bryn Mawr and Haverford colleges.
Any student may request credit in environmental studies for interdisciplinary environmental courses taken at other institutions (domestic and foreign). Application forms for credit evaluations are available on the program's website. Swarthmore College sponsors environmental study abroad programs in Cape Town, South Africa (see www.swarthmore.edu/x20601.xml) and Central Europe (Krakow, Poland and Brno, Czech Republic-see www.swarthmore.edu/x11780.xml).
At least two of the four courses selected for the environmental studies minor must be outside the
major and, if it exists, a second minor, so that when the introductory course and capstone seminar are added, the College policy requiring at least four courses outside the major or any other minor will be satisfied.
Swarthmore environmental studies students may also apply for the honors minor, which has similar requirements plus an external examination on an approved topic that links together two of the courses and a senior honors study paper that explores the connections between the two courses (see honors section below).
Swarthmore students must submit their plan of study to the coordinator, usually when they apply for a major, and should inform the coordinator about any changes in their academic programs. Students may petition the Faculty Committee on Environmental Studies to have courses taken at other institutions fulfill some of these requirements. One of the courses may be independent work or a field study (in the U.S. or abroad).

## Overview of Curriculum

## Introductory Course

Completion of the introductory course, Introduction to Environmental Studies (ENVS 001), will normally be required of all minors and should be taken prior to the senior year. This course will be co-taught by one faculty member from a science or engineering field and by one faculty member from the social sciences or humanities. Focusing on one or two case studies, the course will emphasize basic concepts in environmental studies and explore how environmental challenges are best approached by drawing upon the contributions of more than one academic discipline.

## Environmental Courses in Specific Disciplines (normally 4)

The minor in environmental studies generally requires at least two courses from specific disciplines in environmental science/technology, one of which must be a lab science, and two courses from specific disciplines in environmental social science/humanities. These courses are offered by the departments that support the program, and they focus on environmental topics using the methods and perspectives of a specific discipline.

## Cognate and Interdisciplinary Courses

 (maximum of 2)In consultation with the coordinator, up to two courses toward the environmental studies minor may come from the list of cognate and interdisciplinary courses. These courses cover topics and methods that relate significantly to the environment. Interdisciplinary environmental studies courses, including courses taken abroad at other institutions and study abroad programs, may
also be included in this category. Such courses are occasionally offered by the Environmental Studies Program, including independent work or a field study (in the United States or abroad) supervised by a member of the committee (ENVS 090).

## Capstone Seminar

In addition to the introductory course and four courses, each student pursuing a minor will participate in the capstone seminar in environmental studies, offered as ENVS 091 at Swarthmore during the spring semester of the senior year. The capstone seminar will involve advanced work on one or more issues or problems in environmental studies. Leadership of the capstone seminar rotates among the members of the Faculty Committee on Environmental Studies. The Bryn Mawr and Haverford Environmental Studies Senior Seminar (ENVS 397) also counts in fulfillment of the capstone requirement, but before students consider enrolling in the capstone seminar at another campus, they must consult with the Swarthmore Environmental Studies coordinator and recognize that the senior seminars all require major time commitments apart from scheduled seminar meeting times.

## Honors Minor

An honors minor in environmental studies includes an integrated program of the introductory course, four courses, and the capstone seminar.
The course requirements are similar to those of the regular Environmental Studies minor (see above). These six courses are taken in addition to a regular major, and at least four of these courses must be outside the major.
The honors preparation will consist of a combination of two-courses that are related in some way that is suitable for a single honors examination. Both of the courses must be outside the major. The two courses may be selected from a single discipline or from two different, but environmentally related, disciplines. It is also possible for one of the courses to be interdisciplinary. Other two-credit options such as a course with an attachment will not be encouraged, and a two-credit thesis will not be allowed. Student performance in the two designated courses must be at a high enough level to merit honors, as judged by the faculty teaching the courses. Also, approval of the student's honors application should be obtained from these same faculty since they will be expected to specify prospective honors examiners.
The senior honors study will consist of a small paper that explores the connections between the two courses used for the preparation. This paper will be included with background materials submitted to the honors examiner.

## Special Major

Although the Environmental Studies Program does not offer a regularized special major, students who
seek a more focused and extensive study of the environment may pursue a self-designed special major drawing on courses across the curriculum. According to College guidelines, a "special major is expected to be integrated in the sense that it specifies a field of learning (not necessarily conventional) or topic or problems for sustained inquiry that crosses departmental boundaries, or it may be treated as a subfield within the normal departmental major." Special majors consist of at least 10 credits and normally no more than 12 credits, including fulfillment of a comprehensive requirement (such as a thesis, comprehensive examination, or other project approved by the student's faculty advisers).
Students may apply for an environmental studies special major in either the Course or the Honors program. A special major may either be pursued singly or paired with a second major housed in another department or program. All environmental studies special majors must normally complete ENVS 001 and ENVS 091. Interested students should consult as early as possible with the Program Coordinator and other faculty with related interests.
Given the breadth of courses supported by the Environmental Studies Program, it is normal for students to focus special majors either within a particular division (i.e., Humanities, Social Sciences, or Natural Sciences \& Engineering), or around an interdepartmental theme (e.g., Environmental Policy, Food Justice \& Sustainability, Land Use Planning). Since even a well-planned environmental studies special major is by nature interdisciplinary, pursuing it alongside a traditional departmental major-potentially exploring the intersection of the two through an independent thesis-may serve as a valuable course of study.

## Off-Campus Study

Swarthmore's Central European Programs in Brno, Czech Republic and Krakow, Poland
Swarthmore operates closely related environmental study abroad programs in Central Europe hosted by Masaryk University in Brno, Czech Republic and by the Jagiellonian University and Politechnika Krakowska in Krakow, Poland. Students usually take three environmentally related courses, taught in English, as well as a required language and culture course that includes intensive language instruction in either Czech or Polish. The Brno program, based in Masaryk University's Department of Environmental Studies, focuses primarily on environmental social sciences and humanities. An internship at one of two environmental NGO's, supervised by faculty for academic credit, is available at either Hnuti Duha (Czech branch of Friends of the Earth) or the Veronica Sustainability Center. The Krakow
program, based in Politechnika Krakowska’s Department of Environmental Engineering, focuses primarily on environmental science and technology. For more information, see the website: www.swarthmore.edu/ceurope/.

Cape Town South Africa Program on Globalization and the Natural Environment Swarthmore is a member of a consortium with Macalester and Pomona Colleges that sponsors a junior year environmental study abroad program in collaboration with the University of Cape Town, South Africa. Students from the three consortium schools, as well as those schools under consortium agreements with the three schools, may apply. For more information, see the website: www.swarthmore.edu/x20601.xml.

## Courses

Students should regularly check the program's website www.swarthmore.edu/envs.xml for additions and changes to the course lists shown below.

## ENVS 001. Introduction to Environmental

 StudiesBuilt around four case studies, this course provides a broad introduction to the inherently interdisciplinary work of environmental studies by providing historical background and examining options for action using tools from a variety of perspectives, chiefly from the sciences and social sciences. Course themes include tragedy of the commons issues, and rights and environmental justice; sustainable development, including increasing urbanization of humanity, population growth, and Kuznets curve; global climate change science and debate; feedback loops and tipping points; and community adaptation and resilience. 1 credit.
Spring 2015. Jensen, Nackenoff.

## ENVS 090. Directed Reading in

Environmental Studies
0.5 or 1 credit.

Fall 2014 and spring 2015. Staff
ENVS 091. Capstone Seminar
1 credit.
Spring 2015. Everbach.
ENVS 092. Research Project in
Environmental Studies
0.5 or 1 credit.

Fall 2014 and spring 2015. Staff
ENVS 093. Thesis
1 credit.
Fall 2014 and spring 2015. Staff.
ENVS 180. Honors Thesis
1 credit.
Fall 2014 and spring 2015. Staff.

## Environmental Science/Technology

## Courses

The environmental science/technology category includes courses that emphasize techniques and methodologies of the sciences and engineering and whose subject is central to environmental studies.
Therefore, all students will be familiar with a body of scientific knowledge and scientific approaches to environmental problems.
BIOL 002. Organismal and Population Biology
BIOL 036. Ecology
BIOL 037. Conservation Biology
BIOL 039. Marine Biology
BIOL 137. Biodiversity and Ecosystem Function
CHEM 001. Chemistry in Context: Applying
Chemistry to Society
CHEM 103. Topics in Environmental Chemistry
ENGR 004A. Environmental Protection
ENGR 063. Water Quality and Pollution Control
ENGR 066. Environmental Systems
PHYS 024. The Earth's Climate and Global Warming

## Environmental Social Sciences/Humanities

 CoursesThe environmental social science/humanities category includes courses that are central to environmental studies and focus on values, their social contexts, and their implementation in policies. Thus, all students will have studied the social context in which environmental problems are created and can be solved.
ANTH 023C. Anthropological Perspectives on Conservation
CHIN 087. Fresh Water Resources: Policies and Issues, China and the U.S.
CHIN 088. Governance and Environmental Issue in China (Cross-listed as POLS 088)
ECON 003A. Environmental Policy and Economics
ECON 076. Environmental Economics
ENGL 009C. First-Year Seminar: Imagining Natural History
ENGL 070G. Writing Nature
FMST 035. Histories of the Water (Cross-listed as HIST 061)
HIST 061. Histories of the Water (Cross-listed as FMST 035)
HIST 089. Environmental History of Africa
JPNS 035. Narratives of Disaster and Rebuilding in Japan
LITR 086R. Nature and Industry in Russia (Crosslisted as RUSS 086)
PHIL 035. Environmental Ethics
POLS 037. Introduction to GIS for Social and
Environmental Analysis (Cross-listed as SOAN 030P)

POLS 043. Environmental Policy and Politics
POLS 043B. Environmental Justice: Theory and Action
POLS 071. Applied Spatial Analysis with GIS
POLS 087. Fresh Water Resources: Policies and Issues, China and the U.S.
POLS 088. Governance and Environmental Issue in China (Cross-listed as CHIN 088)
RELG 022. Religion and Ecology
RUSS 086. Nature and Industry in Russia (Crosslisted as LITR 086R)
SOAN 020M. Race, Gender, and Environment
SOAN 030P. Introduction to GIS for Social and
Environmental Analysis (Cross-listed as POLS 037)

Cognate and Interdisciplinary Courses
The following are Swarthmore courses that are either (1) relevant to environmental studies but not central enough to justify their inclusion in the preceding groups or (2) focus primarily on the environment and are interdisciplinary in nature:
ANTH 080B. Anthropological Linguistics:
Endangered Languages (Cross-listed as LING 120)

ARTH 035. Pictured Environments: Japanese
Landscapes and Cityscapes
BIOL 016. Microbiology
BIOL 017. Microbial Pathogenesis and Immune Response
BIOL 020. Animal Physiology
BIOL 025. Plant Biology
BIOL 026. Invertebrate Biology
BIOL 031. History and Evolution of Human Food
BIOL 034. Evolution
BIOL 115E. Plant Molecular Genetics -
Biotechnology
BIOL 116. Microbial Processes and
Biotechnology
BIOL 130. Behavioral Ecology
CHEM 043. Analytical Methods and Instrumentation
ECON 032. Operations Research (Cross-listed as ENGR 057)
EDUC 074. Social Problems in Philadelphia
(Cross-listed as SOCI 006H)
ENGR 003. Problems in Technology
ENGR 004B. Swarthmore and the Biosphere
ENGR 035. Solar Energy Systems
ENGR 057. Operations Research (Cross-listed as ECON 032)
ENVS 002. Human Nature, Technology, and the Environment
HIST 001N. First-Year Seminar: Oil and Empire

## Environmental Studies

LING 120. Anthropological Linguistics:
Endangered Languages (Cross-listed as ANTH 080B)
LITR 022G. Food Revolutions: History, Politics, Culture

MATH 056. Modeling
PHYS 002E. First-Year Seminar: Energy
PHYS 020. Principles of the Earth Sciences
POLS 048. The Politics of Population
SOCI 006H. Social Problems in Philadelphia
(Cross-listed as EDUC 074)

| Chair: | PATRICIA WHITE, Professor |
| :--- | :--- |
| Core Faculty: | SUNKA SIMON, Professor and Associate Provost for Faculty <br> Development <br> BOB REHAK, Associate Professor |
| ERICA CHO, Visiting Assistant Professor |  |
| Affiliated Faculty: | Timothy Burke (History) <br> William Gardner (Modern Languages and Literatures, Japanese) <br> Haili Kong (Modern Languages and Literatures, Chinese) <br> Maya Nadkarni (Sociology and Anthropology) <br> Carina Yervasi (Modern Languages and Literatures, French) |
| Administrative Assistant: Susan Grossi |  |

${ }^{1}$ Absent on leave, 2014-2015.

Moving-image media have been one of the most distinctive innovations and experiences of the past century. In today's media-dependent culture, developing a critical understanding and a historical knowledge of media forms is vital. Film and media studies provides an understanding of the history, theory, language, and social and cultural aspects of film, television and new media; introduces research and analytical methods; teaches digital video production skills and approaches; and encourages cross-cultural comparison of media forms, histories, audiences, and institutions.

## The Academic Program

The Film and Media Studies Department offers a range of courses in critical studies and production, cross-lists film and media courses with other departments, and awards credit for approved offerings from other departments and programs. Students may major or minor in film and media studies, pursue an honors minor, or, in special cases, design an honors major. FMST 001 is the prerequisite for advanced work in the major or minor and is recommended preparation for any course in the department except first-year seminars. In addition to class meetings, most courses require weekly evening screenings. Production courses are limited to 9 students and may not be taken pass/fail.

## Course Major

## Requirements

Majors must take a minimum of 10 credits. Requirements: FMST 001 (Introduction to Film and Media Studies); FMST 090 (Capstone); 1 production course (FMST 002: Digital Film Fundamentals; FMST 015: Screenwriting; a hybrid critical studies/production class numbered 30-39 or an approved course taken at another institution or in theater or studio art); either FMST 020:
Critical Theories of Film and Media or FMST 025: Television and New Media (or both); and at least 1 course that offers historical depth in a national or
transnational cinema tradition (classes numbered 50-60). Remaining courses and seminars should be selected to achieve breadth and depth in the discipline and balance between critical studies and production courses. Courses in a major may include three approved credits drawn from film and media offerings at Bryn Mawr, Haverford, or the University of Pennsylvania; courses in the discipline taken abroad or at other U.S. institutions; or approved offerings from other Swarthmore departments and programs.

## Acceptance Criteria

To be accepted as a major, students must have completed FMST 001 with a grade of B or above and have completed or be currently enrolled in at least one additional FMST course.

## Course Minor

Students may add a minor in Film and Media Studies to any major.

## Requirements

All minors must take a minimum of 5 credits, which may be selected from the courses and seminars listed or from those taken abroad, at Bryn Mawr, Haverford, or University of Pennsylvania, when the work is approved by the committee. The 5 credits must include FMST 001: Introduction to Film and Media Studies and FMST 090: Capstone, normally taken in the senior year. No more than two credits taken outside FMST can be counted toward the minor.

## Acceptance Criteria

To be admitted to the minor, students must have satisfactorily completed one film and media studies course.

## Honors Major

FMST offers a limited number of honors seminars and approves honors majors proposals only in exceptional cases. Students wishing to design an
honors major in film and media studies should consult with the department chair.

## Honors Minor

## Requirements

Students in the Honors Program may minor in film and media studies by meeting the requirements for the minor and by preparing for and taking one external exam. The exam preparation usually consists either of an FMST seminar or FMST 090 plus a 1-credit honors attachment; however, the two-credit honors preparation may incorporate a 1or 2-credit thesis or project or other course or seminar work with the approval of the film and media studies chair. Senior honors study (SHS) consists of a revised essay or short film submitted for a course or seminar in the preparation. No SHS is required for a thesis or creative project.

## Acceptance Criteria

Students wishing to complete an honors minor must have received a grade of B+ or better in all film and media studies courses.

## Thesis / Culminating Exercise

FMST 090: Capstone is considered the culminating exercise for majors and minors and facilitates the completion of individual research or creative projects. There is no required thesis.
Occasionally senior majors may be permitted to write a one-credit thesis or to make a thesis video in addition to their work in the capstone; applications must be submitted and approved in the semester before the project is to be undertaken.

## Advanced Placement/International Baccalaureate Credit

Consult with the department chair to determine eligibility of AP or IB work.

## Transfer Credit

Students may apply two approved transfer credits to their FMST major.

## Off-Campus Study

Students in any major may apply to receive film and media studies credit for courses in critical studies or production taken abroad or on other campuses. Please consult with your adviser as you plan your study abroad for recommended
programs. Two approved credits may be applied to the FMST major or minor.

## Courses

FMST 001. Introduction to Film and Media Studies
In this course students are introduced to forms and histories of film and other moving-image media, as well as to key concepts, theories, and methods
in the discipline of film and media studies. We begin with analysis of the elements of film form; explore narrative, documentary, experimental and genre formats; and conclude with perspectives on authorship, national cinema, historiography, and topics in film and media theory. Emphasis is on developing writing, analytical, and research skills. Required weekly evening screenings of works from diverse periods, countries, and traditions. FMST 001 is the prerequisite for most upper-level FMST classes.
1 credit.
Fall 2014. White. Fall 2015. Rehak.
FMST 002. Digital Film Fundamentals
This course introduces students to the expressive possibilities and rigors of the film medium while offering a sound technical foundation in digital production and post-production. We will explore documentary, experimental, and narrative approaches and also consider the opportunities and limitations-conceptual, practical and aestheticof exhibiting work through different venues and platforms. Emphasis will be on using the formal and conceptual palette introduced in the course to develop one's own artistic vision. Coursework includes short assignments, discussions, screenings, and a final project.
Prerequisite: FMST 001.
1 credit.
Spring 2015. Cho.

## FMST 005. First-Year Seminar: Special

 Effects and Film SpectacleFocusing on the history and theory of spectacular media culture with an emphasis on visual effects and other forms of behind- the- scenes industrial knowledge, this course introduces students to the basics of studying and writing about spectacle in film, television, and digital entertainment, exploring questions such as the relationship between style and technology; formal and narrative principles of "showstoppers" such as musical numbers and fight scenes; and issues of realism and illusion, visual pleasure, sensory immersion, capitalism, and ideology. Required weekly evening screenings.
Writing course.
1 credit.
Spring 2016. Rehak.

## FMST 011. Advanced Production

Workshop: Approaches to Narrative
This course is an advanced filmmaking workshop for students with prior production experience. Through practical workshops in pre-production, sound production, cinematography, and editing, students advance their technical, aesthetic, and storytelling skills beyond the fundamentals. Through reading, discussion, and exposure to a variety of creative practices within film and video, the course promotes a critical understanding of
these media. Production coursework includes collaborative exercises and the completion of a short film-documentary, narrative, or experimental. This course is designed to help students develop their voice as filmmakers through the creation of high-quality works and is strongly recommended for students interested in producing a senior capstone film project in FMST90. Required weekly evening screenings and final project screening.
Prerequisites: FMST 001, and FMST 002 or equivalent production course with instructor's approval.
1 credit.
Fall 2015. Cho.

## FMST 013. Experimental Animation

This course is an introduction to analog and digital animation concepts and techniques and includes workshops on cut-out animation, stop-motion, and hybrid computer based forms using Adobe After
Effects and Adobe Photoshop. The course emphasizes technical and aesthetic experimentation, with the goal of developing a personal vision through the creation of highquality, experimental works. Through reading, discussion, and exposure to a variety of artistic practices within film, video art, and animation, the course promotes a critical understanding of these media. The class concludes with a public screening of final projects.
Prerequisites: FMST 001 and FMST 002 or permission of the instructor. Students with knowledge of Adobe Photoshop, Adobe Illustrator, and strong drawing skills are encouraged to contact instructor.
1 credit.
Fall 2014. Cho.

## FMST 015. Screenwriting

This course introduces students to the fundamentals of screenwriting while enabling them to explore their unique sensibility as writers. We consider how screenplays differ from other dramatic forms and understand what makes good cinematic storytelling. By looking at short and feature-length scripts and films, we examine issues of structure, character development, effective use of dramatic tension and dialogue, tone, and theme. Through in-class exercises and discussions, students flesh out their ideas and grapple with their writing in a supportive workshop atmosphere. Coursework includes screenings, short assignments, and the completion of several drafts of a short screenplay. By application only. No previous writing experience required.
1 credit.
Spring 2015. Cho.

## FMST 020. Critical Theories of Film and

 MediaFilm critic André Bazin’s famous question, "What is cinema?," has gained new relevance since the advent of digital media. This course introduces classical film theory (realism, montage, theories of modernity and perception), contemporary film theory (theories of film language, the cinematic apparatus, and spectatorship), and approaches that cut across media (authorship, genre, stardom, semiotics, narratology, feminism, production and reception studies, cognitivism). Through readings and weekly screenings, we explore the significance of film and other media in shaping our identity and cultural experience. Required weekly evening screenings.
Eligible for INTP credit.
Prerequisite: FMST 001.
1 credit.
Spring 2016. White.
FMST 021. American Narrative Cinema (Cross-listed as ENGL 087)
This course surveys U.S. narrative film history from the 1910s to the 2010s with an emphasis on the Hollywood studio era. We consider how genres such as the western, the melodrama, and film noir express aspirations and anxieties about race, gender, class and ethnicity in the United States. Film is understood as narrative form, audiovisual medium, industrial product, and social practice. Classical Hollywood is approached as a national cinema, illuminated by attention to independent narrative traditions ("race movies," New Queer Cinema). Required weekly evening screenings.
1 credit.
Spring 2016. White.
FMST 022. Cinema and Modernity, 18941934
This course explores the first decades of film history in the context of global modernity and artistic modernism. In form and content, silent-era cinema functioned as both a vector and a reflection of the transformative subjective and social experiences of modernity. Urbanization, immigration, consumerism, and women's participation in the labor force were refracted in silent movie genres and stars. We will pay special attention to cinema's internationalism before the introduction of synchronized sound, looking at film culture and national film stars in Asia as well as the U.S. and Europe. Field trips and guests will address key topics of silent film historiography including archives and preservation and film music. Required weekly evening screenings. 1 credit.
Fall 2015. White.

## FMST 025. Television and New Media

This course introduces students to major trends in critical thought regarding electronic media, including the rise of broadcast television, recent developments in narrowcast or niche programming and distribution, and the relationship among media industries, advertisers, and audiences. Special attention will be given to probing and historicizing the formal concepts of broadcast and digital TV, examining our ongoing cultural adaptation to emerging screen technologies and their attendant narrative and audiovisual forms. Coursework includes weekly blogging, one analytical paper, presentations, and the production of a creative TVrelated project. Required weekly evening screenings.
Prerequisite: FMST 001.
1 credit.
Spring 2015. Simon.

## FMST 035. Histories of Water

(Cross-listed as HIST 061)
Film and history are narrative forms that have both been challenged-creatively and analytically-by the subject of water, its politics and its poetics. This course will explore the written and filmic histories of water through analytic as well as artistic practice. Students will watch films in different genres (the film essay, found footage film, experimental documentary, and dramatic narrative) and read across sub-disciplines of history (from the early modern Pacific world to climate change denialism in the late twentieth centuries). We will discuss themes that emerge at the intersection of water history and water cinema: water as mystery/nature; water as social, political, and ecological crisis; water as dream of leisure and recreation; water as space of labor, economy, transit. The final project addresses a specific problem in the history of water through a creative and analytical lens.
Eligible for ENVS credit.
1 credit.
Fall 2014. Cho, Azfar.

## FMST 041. Fan Culture

Explores the history, philosophy, and impact of fandom in film, television, and new media. Drawing on methodologies including reception ethnography, feminism, performance, cultural studies, and convergence theory, we will consider topics such as the history of celebrity and "cult" status; the creation and sharing of fan fiction and videos; gendered, queer, and cis identities in fan culture; relationships between fans and industries; and fandom in digital social media. Screenings include serial and episodic TV, camp and "trash" cinema, narrative and documentary films, and fangenerated content.

Eligible for GSST credit if all papers and projects are focused on GSST topics.
1 credit.
Spring 2016. Rehak.

## FMST 042. Animation and Cinema

This course examines the forms, technologies, and history of animation in film and other media. Screenings include short- and feature-length animated films, narrative and experimental animation from the U.S. and other countries, and animation in television and digital media. Emphasis is on framing animation in relation to an array of cultural and economic forces and theoretical perspectives, including performance, gender, the body, media evolution, taste, symbolism and realism, and the avant-garde. Required weekly evening screenings.
1 credit.
Fall 2015. Rehak.
FMST 045. Feminist Film and Media Studies
(Cross-listed as ENGL 091)
This course focuses on critical approaches to films and videos made by women in a range of historical periods, national production contexts, and styles: mainstream and independent, narrative, documentary, video art, and experimental. Readings will address questions of authorship and aesthetics, spectatorship and reception, image and gaze, race, sexual, and national identity, and current media politics Required weekly evening screenings.
Eligible for GSST or INTP credit.
1 credit.
Fall 2015. White.

## FMST 046. Queer Media

(Cross-listed as ENGL 090 and GSST 020)
The history of avant-garde and experimental media has been intertwined with that of gender non-conformity and sexual dissidence. Queer theory has developed in relation to queer film texts and cultures. How do
lesbian/gay/bisexual/transgender (lgbt) filmmakers queer sexual norms and standard media forms? Challenging classic Hollywood’s heterosexual presumption and mass media appropriations of lgbt culture, we will examine lgbt aesthetic strategies and modes of address in contexts such as the American and European avant-gardes, AIDS activism, and transnational and diasporan film. Eligible for INTP credit.
1 credit.
Fall 2014. White.

## FMST 050. What on Earth Is World

Cinema?
Is there such a thing as world cinema, or is the concept a naïve or imperialist one? What is the
relationship between "world cinema" and national cinemas? What is "national" about national cinemas? This course introduces students to theoretical debates about the categorization and global circulation of films, film style, authorship, and audiences through case studies drawn from Iranian, Indian, East Asian (Korea, Taiwan), Latin American, European, and U.S. independent cinemas presented at required weekly evening screenings. Special attention to how film festivals, journalism, and cinephile culture confer value. 1 credit.
Spring 2015. White.

## FMST 051. European Cinema

(Cross-listed as LITR 051G)
The course introduces post-war directors (Bergman and Fellini), British and French New Waves, Eastern European cinema (Tarkovsky, Wajda), Post-New Wave Italian auteurs, Spanish cinema after Franco (Erice, Saura, Almodovar), New German Cinema (Fassbinder, Herzog, Wenders), British cinema after 1970 (Roeg, Leigh, Loach, Greenaway) and Danish cinema: Dogme 95 and others. The course addresses key issues and concepts in European cinema such as realism, authorship, art cinema, and political modernism, with reference to significant films and filmmakers and in the context of historical, social, and cultural issues. Required weekly evening screenings. 1 credit.
Spring 2016. Simon.
FMST 052. Postwar France: French New Wave
(Cross-listed as LITR 073F)
This course is an in-depth exploration of the development and evolution of the French New Wave in postwar France. We will concentrate on the history of the New Wave in France from the 1950s through the late 1960s by the close study of the styles of individual filmmakers, the "film movement" as perceived by critics, and the New Wave's contribution to modernizing France. The primary emphasis will be on the stylistic, sociopolitical, and cultural dimensions of the New Wave, and the filmmakers and critics most closely associated with the movement. Directors who were once all film critics for the magazine Cahiers $d u$ Cinéma-Claude Chabrol, Jean-Luc Godard, Jacques Rivette, Eric Rohmer, and François Truffaut-will be studied along side other important filmmakers of the era Chris Marker, Alain Resnais and Agnès Varda.
Eligible for FMST credit, fulfills national cinema requirement.
1 credit.
Fall 2014. Yervasi.
FMST 055. Contemporary Chinese Cinema
(Cross-listed as CHIN 055)

Cinema has become a special form of cultural mirror representing social dynamics and drastic changes in mainland China, Hong Kong, and Taiwan since the mid-1980s. The course will develop a better understanding of changing Chinese culture by analyzing cinematic texts and the new wave in the era of globalization.
1 credit.
Fall 2014. Kong.
FMST 059. Re-Envisioning Diasporas
This course is team-developed and co-taught in an interdisciplinary, international collaboration. It addresses the historical, cultural, representational, and theoretical specificities of diasporas through examining how visual and literary productions deal with questions of race and ethnicity, gender and sexuality, nationality and globalization from a perpetual state of "elsewhere." How does this experience mark the conceptualization, aesthetics, and politics of the artistic process and textuality? What role do language, body memories, and visualization/projection play in the works we will discuss? How do virtual and real-life diasporic communities interact with their imagination and reception? Students are encouraged to do work in their first and secondary languages. Commitment to cross-cultural dialogue and collaboration a must. Film Studies background helpful but not required. Seminar-style class taught in English. 1 credit.
Fall 2015. Simon, Yervasi.

## FMST 090. Film and Media Studies

 CapstoneThis team-taught course begins by exploring a major paradigm or debate in the field and reviewing research methodology and production techniques. Students then undertake an individual or collaborative research or creative project (in some cases building upon work started in another class or independent study), meeting to workshop ideas and present works-in-progress. Research projects will incorporate multimedia presentation, and creative projects will be accompanied by written materials. The semester culminates in a panel/film festival.
Required for senior majors and minors.
1 credit.
Spring 2015. Cho, White. Spring 2016. Cho, Rehak.

## FMST 097. Independent Study

Students must apply for preregistration approval in writing.
0.5 to 1 credit.

FMST 098. Thesis
For a limited number of majors.
Requires approval.

## Film and Media Studies

Writing course.
1 credit.
FMST 099. Creative Project
For a limited number of majors.
Requires approval.
1 credit.

## Other Courses and Seminars Currently Approved for FMST Credit

For descriptions of the following courses offered in other departments, please consult the appropriate section of the course catalog:
ANTH 002E. Anthropology of Mass Media
ANTH 072D. Visual Anthropology (Spring 2015.
Nadkarni.)
DANC 079. Dancing Desire in Bollywood Film
FREN 045D. Les cinemas africains (Spring 2015.
Yervasi.)
GMST 111. German Media Culture (Honors Seminar) (Fall 2014. Simon)
HIST 044. American Popular Culture (Spring 2015. B. Dorsey.)

HIST 082. Networks, Simulations, Information: Cultural Histories of Digital Media (Fall 2014. Burke)
PHIL 019. Philosophy of Film and Literature
SPAN 082. Cruzando fronteras: migración y transnacionalismo en el cine mexicano (Spring 2015. Buiza)

THEA 004D. Integrated Media Design for Live
Performance (Spring 2015. Saunders)

| Coordinator: | GWYNN KESSLER (Religion) <br> Anna Everetts (Administrative Assistant) |
| :--- | :--- |
| Committee: | Farid Azfar (History) <br> Jean-Vincent Blanchard (Modern Languages and Literatures, French) <br> Bruce Dorsey (History) |
|  | Sibelan Forrester (Modern Languages and Literatures, Russian) <br>  <br>  <br> Farha N. Ghannam (Sociology and Anthropology) <br> Amy L. Graves (Physics) |
|  | Alexandra Gueydan-Turek (Modern Languages and Literatures, French) |
|  | Tamsin Lorraine (Philosophy) |
|  | Bakirathi Mani (English Literature) <br> Patricia White (Film and Media Studies) |

The Gender and Sexuality Studies Program (GSST) foregrounds the study of social relations of power in a variety of cultural, historical and national contexts. The objective of gender and sexuality studies is to bring feminist and queer theory in conversation with new research methodologies in the humanities, social sciences, and natural sciences. The program emphasizes the interrelationship not only between gender and sexuality but also between race and class as well as local and global politics.
The GSST Program is distinguished by the courses it offers across the three academic divisions of the College-humanities, social sciences and natural sciences and engineering.
Students in any major, whether as course majors or in the Honors Program, may elect a minor in gender and sexuality studies by fulfilling the requirements below. Students may also design a special major in GSST in consultation with the program's coordinator. Students who intend to pursue gender and sexuality studies should submit their proposed programs to the coordinator when they submit their sophomore papers. All proposals to minor or major in gender and sexuality studies must be approved by the GSST Committee.
The Jean Brosius Walton '35 Fund and the Wendy S. Cheek Memorial Fund generously contribute toward activities sponsored by Gender and Sexuality Studies.

## The Academic Program

## Course Minor

1. Course minors must take 5 courses and/or seminar offerings which must be selected from at least two different divisions. Seminars count as one course toward program requirements.
2. Only one course counted for GSST may overlap with the student's major or other minor.
3. GSST minors are required to complete GSST 001: Introduction to Gender and Sexuality Studies, and subsequently GSST 020: Theory and Methodology. During the senior year, minors are required to complete GSST 091: Seminar in GSST.
4. With the approval of the GSST Coordinator, students may include courses offered by the Gender and Sexuality Studies program at Bryn Mawr and Haverford Colleges, and by the Women's Studies program at UPenn in their program.
5. Only one relevant course taken abroad may count toward fulfillment of the minor.
6. With the approval of the GSST Coordinator, students may elect to write a 1-credit thesis (GSST 092) or pursue an independent study as a substitute for regular coursework. The thesis cannot be used to fulfill the requirements of the student's major or other minor. Students must have adequate disciplinary background in gender and sexuality studies to carry out independent study and/or write a thesis.

## Honors Minor

1. Students must have a "B" average in GSST coursework at the College in order to be accepted into Honors.
2. Honors minors must complete 6 credits and complete the written and oral external examinations at the end of the senior year.
3. Honors minors must successfully complete the program requirements (GSST 001, 020, and 091). 4. Honors minors must consult with the GSST Coordinator in spring of their junior year regarding their Honors preparations.
4. The examination preparation for the Honors minor will consist of GSST 091: Seminar in GSST. In consultation with the seminar instructor, Honors minors will be required to assemble a Senior Honors Study Portfolio which may include materials such as independent essays, seminar papers, additional reading lists, research projects, etc.
5. Honors minors may apply one GSST-related study abroad credit toward their minor.
6. With the approval of the GSST Coordinator, minors may elect to write a one-credit thesis (GSST 092) or pursue an independent study as a substitute for regular coursework. The thesis cannot be used to fulfill the requirements of the
student's major or other minor. Students must have adequate disciplinary background in GSST to carry out independent study and/or write a thesis.

## Special Major

Students have the option of designing an individualized special major (such as GSST and religion, GSST and sociology and anthropology, GSST and history, etc.). Students also have the option of pursuing the following curricular path:

1. Special majors must successfully complete the program requirements (GSST 001, 020, and 091).
2. Special majors must complete at least 10 credits and normally no more than 12 credits for a special major in GSST.
3. Only two credits may overlap with the student's major or other minor.
4. Special majors may apply up to two GSSTrelated study abroad credits to their program. 5. With approval of the GSST Coordinator, special majors may elect to write a one-credit thesis (GSST 092), or pursue an independent study as a substitute for regular coursework. The thesis cannot be used to fulfill the requirements of the student's major or other minor. Students must have adequate GSST disciplinary background to carry out independent study and/or write a thesis.

## Special Honors Major

1. Special majors must have a " $B$ " average in GSST coursework at the College in order to be accepted into Honors.
2. Honors majors must successfully complete the program requirements (GSST 001, 020, and 091).
3. Honors majors must complete at least 10 credits and complete the written and oral external examinations at the end of their senior year.
4. Only two credits may overlap with the student's major or other minor.
5. Special Honors Majors may apply up to 2 GSST-related study abroad credits to their program.
6. Honors majors must consult with the GSST

Coordinator in spring of their junior year regarding their Honors preparations and Senior Honors Study Portfolio.
7. One of the four Honors exam preparations must include GSST 091: Seminar in GSST.
8. With approval of the GSST Coordinator, special majors may elect to write a one-credit thesis (GSST 092), or pursue an independent study as a substitute for regular coursework. The thesis cannot be used to fulfill the requirements of the student's major or other minor. Students must have adequate GSST disciplinary background to carry out independent study and/or write a thesis.

## Application Process Notes for the Minor

Students interested in pursuing a minor in GSST are required to complete a GSST application form to be submitted along with a copy of their sophomore application to the Programs Office, Trotter 107. Special major, honors, and transfer credit applications are also available at: www.swarthmore.edu/gsst.

## Transfer Credit

To receive academic credit for women's studies or gender and sexuality studies courses taken at other colleges and universities in the U.S., students must first apply for credit through the appropriate Swarthmore department, and then apply to the Gender and Sexuality Studies Program to have the course included in their program. If the institution offering the course has a Women's Studies, Gender and Sexuality Studies Program, or a similar program, the course in question must be part of that program in order to be approved as a gender and sexuality studies course at Swarthmore.

## Off-Campus Study

The Gender and Sexuality Studies Program grants academic credit for course work relevant to the academic program taken while studying abroad. Minors may apply for no more than one credit of work done abroad to meet their GSST
requirements. GSST special majors may apply up to two GSST-related study abroad credits to their program.
In order to receive credit, the GSST Coordinator must preapprove the course(s).
When the student returns to campus, the GSST Coordinator will evaluate the work (syllabus, exams, papers, and class notes) and assign the appropriate amount of credit.

## Internship Support

The Summer Social Action Awards (S2A2) support students in the current sophomore and junior classes to spend ten weeks, full time (35 hours per week) performing advocacy and/or service through a host non-profit organization. Financial support includes a weekly stipend to offset modest living expenses, and the provision of the summer earnings requirement.
The Richard Sager Internship, administered through the S2A2 program, supports one student interested in working with a non-profit organizational host whose mission focuses on LGBTQ issues. While the Sager Internship funds can only provide support for one student per summer, please note that applications are evaluated on their own merits. Therefore, more than one student who has been offered a full-time placement with an LGBTQ organization may
serve through a "general" S2A2 grant. Students applying as a result of their academic involvement in the GSST program may also be funded through a Nason grant.

## Courses

The program offers the following courses and seminars:

## GSST 001. Introduction to Gender and

 Sexuality StudiesThis interdisciplinary core course is an introduction to key concepts, questions, and analytical tools developed by scholars of gender and sexuality studies. Through this course, you will become familiar with key contemporary debates in the field, as well as the historical formation of these debates. Substantial attention will be paid to the development and application of queer theory within the history of the field, including discussion of social construction of gender identities and expressions, as well as LGBTQ identities, texts, theories, and issues. Course materials will include "classic" and contemporary gender and sexuality studies scholarship from a variety of disciplines. We will explore gender and sexuality in relation to topics such as media representation, embodiment, economics, health and reproduction, technology, activism, social movements, and violence.
Required course for GSST minors and special majors.
1 credit.
Fall 2014. Surkan.

## GSST 020. Theory and Methodology

Special Topics: Queer Media
(Cross-listed as GSST 020, FMST 046)
The history of avant-garde and experimental media has been intertwined with that of gender non-conformity and sexual dissidence, and even the most mainstream media forms have been queered by sub-cultural reception. How do LGBT filmmakers "queer" sexual norms and standard media forms? How are sexual identities mediated by popular culture? Challenging classic Hollywood's heterosexual presumption and mass media appropriations of LGBT culture, we will examine LGBT aesthetic strategies and modes of address in contexts such as the American and European avant-gardes, AIDS activism, and transnational and diasporan film through the lens of queer theory.
Prerequisite: GSST 001 or permission of instructor.
1 credit.
Fall 2014. White.

## GSST 091. Seminar in Gender and

Sexuality Studies
An advanced seminar emphasizing theoretical and methodological questions that occur when gender and sexuality are placed at the center of study.
This class is required of, and normally limited to, students with minors or special majors in GSST and is required for seniors. Others may take the course with instructor's permission.
Prerequisite: GSST 001 and 020, or permission of instructor.
1 credit.
Spring 2015. Kessler.
GSST 092. Thesis
1 credit.
Each semester. Staff.
GSST 093. Directed Reading
1 credit.
Fall 2014 and spring 2015.

## GSST 192A and GSST 192B. Honors

## Thesis

For students completing a special major in honors ( 1 credit must be taken each semester of the senior year).
2 credits. Staff.

The following departmental courses have been approved for credit toward the Gender and Sexuality Studies Program:

## Anthropology

ANTH 002D. Culture and Gender
ANTH 002F. Anthropology of Childhood and Family
ANTH 007C. Sociology Through African
American Women's Writing
ANTH 020J. Dance and Diaspora
ANTH 040J. Social Movements in Latin America:
Gender and Queer Perspective
ANTH 072C. Memory, History, Nation*
Biology
BIOL 024. Developmental Biology*

## Dance

DANC 025A. Dance and Diaspora
DANC 028. Politics and Aesthetics of Classical
Indian Dance
DANC 035. Women Choreographers and Composers
DANC 036. Dancing Identities
DANC 038. Performing Ecstasy Dancing the
Sacred
DANC 079. Dancing Desire in Bollywood

Economics
ECON 073. Race, Ethnicity, and Gender in Economics

## Education

EDUC 045. Literacies and Social Identities*
EDUC 061. Gender and Education
English Literature
ENGL 009P. Women and Popular Culture
ENGL 009Y. Interrogating Gender: Centuries of Dramatic Cross-Dressing
ENGL 023. Renaissance Sexualities
ENGL 024. Witchcraft and Magic
ENGL 033. The Romantic Sublime
ENGL 035CC. Rise of the Novel
ENGL 036. The Age of Austen
ENGL 048. Contemporary Women’s Poetry
ENGL 077. South Asians in Asian America
ENGL 082. Transnational Feminist Theory
ENGL 091. Feminist Film and Media Studies
ENGL 110. Romanticism
ENGL 112. Contemporary Women's Poetry
Film and Media Studies
FMST 009. Women and Popular Culture
FMST 041. Fan Culture*
FMST 045. Feminist Film and Media Studies
FMST 046. Queer Media
FMST 054. German Cinema
FMST 059. Re-Envisioning Diasporas
French
FREN 037. Littératures Francophones
FREN 056. Ecritures au feminine
FREN 076. Contemporary Arab Women Writers
FREN 111. Le Désir Colonial
FREN 115. Paroles de Femmes

## German Studies

GMST 052. The Gender of Modernity
GMST 056. Populärliteratur
GMST 108. Wien und Berlin

## History

HIST 001B. Human Rights as History
HIST 001K. Engendering Culture
HIST 016. Sex, Sin, and Kin in Early Europe
HIST 021. London Beyond Control
HIST 023. Enlightenment Sexualities
HIST 029. Sexuality and Society in Modern Europe
HIST 052. The History of Manhood in America, 1750-1920
HIST 053. Black Women in the Civil Rights Movement

HIST 054. Women, Society, and Politics
HIST 055. Social Movements in the 20th Century
HIST 080. History of the Body
HIST 131. Gender and Sexuality in America
HIST 145. Chinese Feminism
Japanese
JPNS 026. Masculinities in Japanese Film and Fiction

Latin American Studies
LASC 040. Social Movements in Latin America: Gender and Queer Perspective
Linguistics
LING 003. What "Gay" Sounds Like

## Literatures

LITR 015R. East European Prose in Translation
LITR 017R. Love and Sex in Russian Literature
LITR 059F. Re-Envisioning Diasporas
LITR 074S. Queer Issues in Latin American
Literature and Cinema
LITR 076AF. Contemporary Arab Women Writers
LITR 076S. Latino and Latin American Sexualities

Philosophy
PHIL 045. Futures of Feminism
PHIL 061. Philosophy of Race and Gender
Physics
PHYS 029. Seminar on Gender and (Physical) Science

## Political Science

POLS 013. Feminist Political Theory
POLS 014. The Politics of Identity
POLS 031. Difference, Dominance, and the Struggle for Equality
POLS 032. Gender, Politics, and Policy in America
POLS 046. Lesbians and Gays in American Politics

## Psychology

PSYC 055. Family Systems Theory and
Psychological Change*
PSYC 048. Gender and Psychopathy
Religion
RELG 003. The Bible: In the Beginning
RELG 007B. Women and Religion
RELG 025B. Black Women and Religion in the United States
RELG 032. Queering God: Feminist and Queer Theory
RELG 053. Gender, Sexuality, and the Body in Islam
RELG 114. Love and Religion

## Gender and Sexuality Studies

RELG 128. Sex, Gender and the Hebrew Bible
Russian
RUSS 015. East European Prose in Translation
RUSS 017. Love and Sex in Russian Literature
RUSS 079. Russian Women Writers
RUSS 111. Tsvetaeva and Mayakovsky
RUSS 112. Akhmatova and Mandelstam

## Sociology

SOAN 010J. War, Sport, and the Construction of Masculine Identity
SOAN 079B. Dancing Desire in Bollywood

## Spanish

SPAN 066. Escritoras españolas: Una voz propia
SPAN 070. Género y sexualidad en Latinoamérica
SPAN 104. La voz de la mujer a través de los siglos

[^0]STEPHEN P. BENSCH, Professor ${ }^{2}$
TIMOTHY J. BURKE, Professor and Chair
ALLISON DORSEY, Professor
BRUCE DORSEY, Professor
PIETER M. JUDSON, Professor ${ }^{2}$
MARJORIE MURPHY, Professor
ROBERT E. WEINBERG, Professor
DIEGO ARMUS, Associate Professor
FARID AZFAR, Assistant Professor
BUYUN CHEN, Assistant Professor
JEN MOORE, Administrative Assistant
${ }^{2}$ Absent on leave, 2014-2015.

Swarthmore's History Department gives students the intellectual and analytical skills to think critically about the past and the contemporary world.
It is part of a journey of self-discovery-and crucial to the kind of liberal arts education offered at Swarthmore, because it asks students to question critically the assumptions, values, and principles that guide them in their daily lives. History encourages us to have respect for other cultures and peoples.

## What is History?

The study of history is not limited to learning events, dates, and names. History is a method of analysis that focuses on the contexts in which people have lived, worked, and died. Historians seek to go beyond their descriptive abilities and to wrestle with the essential questions of "how" and "why" change occurs over time. They interpret the past and are in constant dialogue with what other historians have written about it. For example, although there may be agreement that Adolf Hitler became chancellor of Germany in 1933, historians have and will continue to debate the origins of Nazism, the rise of Hitler to power, and the causes of World War II and the Holocaust. Historical scholarship enables us to not only know what occurred in the past but also to understand the thoughts and actions of people living in other times and places, allowing us to uncover the continuities and disruptions of patterns that characterized life before our time.

## Overview of Curriculum

Swarthmore's history curriculum introduces students to historical methods and the fundamentals of historical thinking, research, and writing. Faculty members expose students to the contested nature of the discipline, cultivating the skills historians employ to understand and interpret the past. Students learn to assess critically the evidence of the past through first-hand exposure to primary sources. They also develop the ability to evaluate the respective arguments of historians. In all courses and seminars, the department strives to involve students in the
process of historical discovery and interpretation, emphasizing that all historians are engaged in the constant sifting of old and new evidence.
Each faculty member in the History Department has a regional focus as well as expertise in a particular kind of historical inquiry. Some study social, cultural, and political movements; others examine the impact of religion or explore the history of ideas, sexuality, and gender. They all share a commitment to a global and comparative approach to the study of history and a common pedagogical concern for promoting a critical understanding of the past.
Students are encouraged to hone their skills as historians by using the rich collections of the Swarthmore College Peace Collection and Friends Historical Library, both located in McCabe Library. The Peace Collection is unparalleled as a depository of antiwar and disarmament materials, housing the papers of many leading social activists. The Friends Library possesses one of the richest collections of manuscripts and printed source material on Quaker history. The holdings of other institutions in the greater Philadelphia area, such as the Historical Society of Pennsylvania, the Hagley Museum and Library (Wilmington, Del.), the Library Company of Philadelphia, and the American Philosophical Society, are also accessible to the student-researcher. Students are also encouraged to broaden their cultural and intellectual horizons through foreign study.
Students are eligible to apply for grants that will enable them to spend a summer conducting research on a historical topic of their choosing. In the past, students have used these grants to immerse themselves in materials found in libraries and archives around the United States, Europe, and Latin America, collecting materials that formed the basis of their senior research papers. Topics of recent senior theses include tourism and national identity in Latvia, Mennonites in imperial Germany, conscientious objectors during World War I, the history of queer activism at Swarthmore, and Quaker relations with Native Americans.

Courses and seminars offered by the History Department are integral to most interdisciplinary programs, such as black studies, gender and sexuality studies, interpretation theory, Islamic studies, Latin American studies, peace and conflict studies, and public policy, as well as to the majors in Asian studies and medieval studies. Students interested in these programs should consult the appropriate statements of requirements and course offerings. In addition, we encourage students who wish to obtain teacher certification to major in history.

## The Academic Program

## First-Year Seminars

First-year seminars (HIST 001A-001Z; 1 credit) explore specific historical issues or periods in depth in a seminar setting; they are open to firstyear students only and are limited to 12 students. Students who are not admitted to first-year seminars in the fall will receive priority for seminars in the spring.

## Survey Courses

Survey courses provide broad chronological coverage of a particular field of history. Survey courses (002-010; 1 credit) are open to all students without prerequisites and are designed to offer a general education in the field as well as provide preparation for a range of upper-level courses. Although these entry-level courses vary somewhat in approach, they normally focus on major issues of interpretation, the analysis of primary sources, and historical methodology.

## Upper-Division Courses

Upper-division courses (HIST 011-099; 1 credit) are specifically thematic and topical in nature and do not attempt to provide the broad coverage that surveys do. They are generally open to students who have fulfilled one of the following: (1) successfully completed one of the courses numbered 001-010; (2) received an Advanced Placement score of 4 or 5 (or a 6 or 7 IB score) in any area of history; (3) successfully completed one of the following Classics courses: 016, 023, 031, $032,042,044,045,056$, or 066 ; or (4) received the permission of the instructor. Exceptions are courses designated "not open to first-year students" or where specific prerequisites are stated.

## Double-Credit Seminars

Double-credit seminars are small classes in which students are expected to take substantial responsibility for the development of the discussion and learning. These seminars focus on the literature of a given field. Critical thinking about secondary sources and historiographical writing constitute their principle objectives. Seminars are limited to 10 students. Admission to these seminars is selective and based on the department's evaluation of the student's potential
to do independent work and to contribute to seminar discussions. A minimum grade of B+in at least two history courses taken at Swarthmore and a record of active and informed participation in class discussions are normally required of all students entering seminars. In addition, recommendations from department faculty members who have taught the student are solicited.

## Language Attachment

Certain designated courses offer the option of a foreign language attachment, normally for 0.5 credit. Arrangements for this option should be made with the instructor at the time of registration.

## Course Major Requirements

All majors in history must take at least 9 credits in history that fulfill the following requirements:

1. They complete at least 6 of their 9 credits at Swarthmore. Only one credit from AP/IB will count toward the 9 credits required for the major.
2. They take at least one course or seminar at Swarthmore from each of the following categories:
(a) before 1750 (including CLAS 016, 023, 031,
$032,042,044,045,056$, and 066) and (b) outside Europe and the United States, specifically Africa, Asia, Latin America, and the Near East. This distribution requirement encourages students to explore various fields of history and engage in comparative historical analysis. Students must use different courses or seminars to fulfill this requirement.

## Senior Research Seminar

All majors must complete the Senior Research Seminar (HIST 091) in which students write a research paper based on primary sources. This course (which counts as one of the required nine credits) satisfies the College's requirement that all majors have a culminating exercise and is only offered during the fall semester. The department encourages students to consult faculty members about their topics by the end of their junior year and select their topic prior to taking the Senior Research Seminar.

## Acceptance Criteria

Admission to the department as a course major normally requires a B average in at least two history courses taken at Swarthmore and a satisfactory standard of work in all courses. Courses in Greek and Roman history offered by the Classics Department count toward the two history courses prerequisite. The department reserves the right to withhold evaluation of applications submitted after the deadline. If after applying a student is deferred, the department will review their application at the end of each semester until the student is either accepted into the major or withdraws his or her application.

## Honors Major Requirements

Honors history majors must complete the same credit and distribution requirements as described above. Seminars are the normal mode of preparation for students studying history in the Honors Program. Honors majors will complete three double-credit seminars. Students may substitute Honors Thesis (HIST 180) for one of their seminars. Students wishing to write an Honors Thesis (HIST 180) should declare their intention to the Department and secure an adviser by May 1 of their junior year. Honors majors will also be required to complete the Senior Research Seminar (HIST 091). Honors students may, if their Honors Program requires it, receive approval from the department chair to complete the Senior Research Seminar in the fall of their junior year.

## Seminars

Seminars are a collective, collaborative, and cooperative venture among students and faculty members designed to promote self-directed learning. Because the seminar depends on the active participation of all its members, the department expects students to live up to the standards of honors. These standards include attendance at every seminar session, submission of seminar papers according to the deadline set by the instructor, reading of seminar papers before coming to the seminar, completion of all reading assignments before the seminar, respect of the needs of other students who share the reserve readings, and eagerness to engage in a scholarly discussion of the issues raised by the readings and seminar papers. Students earn double-credit for seminars and should be prepared to work at least twice as hard as they do for single-credit courses. The department reminds students that the responsibility for earning honors rests squarely on the students' shoulders and will review on a regular basis their performance in the program. Failure to live up to the standards outlined previously may disqualify students from continuing in the Honors Program. Students in seminars take a 3-hour written examination at the end of each seminar and receive a grade from the seminar instructor based on the quality of seminar papers and comments during seminar discussions, in addition to the written examination. Seminar instructors will not normally assign grades during the course of the seminar, but they will meet periodically with students on an individual basis during the course of the semester to discuss their progress.

## External Examiner Evaluations

Honors students will revise one paper per seminar for their portfolio submitted to external examiners. Revised papers will not be graded but will be included in the portfolio to provide examiners a context for the evaluation of the written examination taken in the spring of the senior year. The thesis and revised seminar papers are due by
the end of classes in the spring semester of the students' senior year.
Revised seminar papers are written in two stages. During the first stage, students confer with their seminar instructor about what paper to prepare for honors and what revisions to plan for these papers. Seminar instructors will offer advice on how to improve the papers with additional readings, structural changes and further development of arguments. The second stage occurs when the student revises the papers independently. Faculty members are not expected to read the revised papers at any stage of the revision process. Each revised paper must be from 2,500 to 4,000 words and include a brief bibliography. Students will submit them to the department office by the end of classes in the spring semester of the students' senior year. Students who fail to submit their revised papers by the deadline might adversely affect their honorific. Examiners will be notified about late papers.

## Study Groups

The department encourages students to form their own study groups to prepare for the external examinations. Although faculty members may, at their convenience, attend an occasional study session, students are generally expected to form and lead the study groups, in keeping with the department's belief that honors is a collaborative, self-learning exercise that relies on the commitment of students.

## Acceptance Criteria

Admission to honors is selective and based on an evaluation of the student's potential to do independent work and to contribute to seminar discussions. A minimum grade of $\mathrm{B}+$ in at least two history courses taken at Swarthmore and a record of active and informed participation in class discussions are required of all students entering seminars. In addition, recommendations from department faculty members who have taught the student are solicited.
Sophomores hoping to take history seminars in their junior and senior years should give special thought to the seminars that they list in their Sophomore Plans. Seminar enrollments are normally limited to 10 . If you are placed in a seminar at the end of your sophomore year, you will be one of 10 students guaranteed a space and you are, in effect, taking the space of another student who might also like to be in the seminar. Consequently, you should not list any seminar in your Sophomore Plan without being quite certain that you intend to take it if you are admitted.
Honors students are expected to maintain a B+ average to continue attending honors seminars and being an honors student. Honors majors who wish to withdraw from the Honors Program and still graduate on time with a course major in history must complete the Senior Research Seminar in the fall of their senior year. The department's
culminating exercise is only offered in the fall semester, with no exceptions.

## Honors and Course Minor Requirements

To graduate with a minor in history, a student must complete five history credits at Swarthmore College (AP, transfer credit and foreign study courses do not count). Two of the five credits must be from courses above the introductory level (course numbers 011 and higher; honors minors will meet this requirement with their honors seminar), and one credit may be in a history course offered by the Classics Department (CLAS 016, $023,031,032,042,044,045,056$, and 066). Honors minors will complete one double-credit seminar as part of their academic program.
Admission to honors is selective and based on an evaluation of the student's potential to do independent work and to contribute to seminar discussions. A minimum grade of $\mathrm{B}+$ in at least two history courses taken at Swarthmore and a record of active and informed participation in class discussions are required of all students entering seminars. In addition, recommendations from department faculty members who have taught the student are solicited.

## Special Major in History and Educational Studies

## Requirements

Students designing a special major in history and educational studies must take six courses in history, including one course in a field other than the United States or Europe. To graduate with a major in History and Educational Studies, a student must also complete our culminating exercise, HIST 091: Senior Research Seminar. With permission, students can complete a twosemester, two-credit thesis (but one credit of this thesis must be HIST 091). Special majors in history and educational studies will work with both an educational studies faculty member and the HIST 091 instructor(s) to complete their onecredit senior research paper or two-credit thesis.

## Acceptance Criteria

Admission to the department as a special major follows similar requirements as course majors. Advisers in each department should be consulted when designing a plan.

## External Credit

## Advanced Placement/International

Baccalaureate
The History Department will automatically grant one credit to students who have achieved a score of 4 or 5 in the U.S., European, or World History Advanced Placement examinations (or a score of 6 or 7 in the International Baccalaureate
examinations) once they have completed any history course number HIST 001 to HIST 010 and earned a grade of C or higher. Students who want credit for a second Advanced
Placement/International Baccalaureate
examination (in a different area of history) must take a second history course at Swarthmore (any course number, including CLAS 016, 023, 031, $032,042,044,045,056$, or 066) and earn a grade of C or higher. The History Department will grant up to two credits for Advanced
Placement/International Baccalaureate work. Only one credit from AP/IB will count toward the 9 credits required for the history major.
A score of 4 or 5 for Advanced Placement (or a score of 6 or 7 for International Baccalaureate) allows students to take some upper-division courses in the History Department.
Advanced Placement/International Baccalaureate credit may be counted toward the number of courses required for graduation and may be used to help fulfill the College's distribution requirements.

## Off-Campus Study

The History Department encourages students to pursue the study of history abroad and grants credit for such study as appropriate. We believe that history majors should master a foreign language as well as immerse themselves in a foreign culture and society. To receive Swarthmore credit for history courses taken during foreign study, a student must have departmental preapproval and have taken at least one history course at Swarthmore (normally before going abroad). Students who want to receive credit for a second course taken abroad must take a second history course at Swarthmore. Students must receive a grade of C or higher to receive history credit at Swarthmore.

## Transfer Credit

The History Department does not grant credit for any history courses taken at other U.S. colleges and universities except courses at Bryn Mawr, Haverford, and the University of Pennsylvania while a registered Swarthmore student.

## Teacher Certification

History majors can complete the requirements for teacher certification through a program approved by the state of Pennsylvania. For further information about the relevant set of requirements, please refer to the Educational Studies section of the Bulletin.

## Life After Swarthmore

Graduate School
Students who intend to continue the study of history after graduation should bear in mind that a reading knowledge of one or two foreign
languages is generally assumed for admission to graduate school.

## Career Opportunities

With strong analytical, writing, and research skills, history majors are prepared for a wide range of occupations and professions. Swarthmore College history majors can be found pursuing a broad range of career paths, ranging from government service to the world of medicine, from elementary and high schools to trade unions and public interest foundations, from journalism and publishing to consulting, and from the private to the public sector. Many find that studying history is excellent preparation for law school and business. And others have gone onto graduate school in history and now teach at universities and colleges in the United States and overseas.

## Courses

HIST 001A. First-Year Seminar: The Barbarian North
The seminar will explore how Germanic and
Celtic societies emerged and solidified their identities as they came into contact with Roman institutions and Latin Christendom.
Eligible for MDST credit.
Writing course.
1 credit.
Not offered 2014-2015.
HIST 001D. First-Year Seminar: China and the World: A History of Collecting
This seminar examines how the creative and multifaceted process of collecting shaped and was shaped by the production of knowledge about the world's people both within and outside of China. We will trace the movement of "things" into and out of China, investigate the practices of collecting in their social and political contexts, and study the wide cast of characters who participated in the cultures of collecting.
Eligible for ASIA credit.
1 credit.
Fall 2014. Chen.
HIST 001E. First-Year Seminar: Past \& Present in Latin America: Problems and Researching Tools
An examination of how historians and social scientists use a variety of primary sources-from literature and movies to cartoons, photographs, paintings, printed media, statistics, official documents, personal narratives and ads-to interpret the making of neo-colonial, modern, and multifaceted Latin America.
Eligible for LASC credit.
1 credit.
Fall 2014. Armus.

HIST 001G. First-Year Seminar: The Golden Age of Portability: The Silk Road Organized around the theme of "portability," this seminar explores the multiple objects that traveled across the Asian continent along the Silk Road trade routes. We will track the process by which different cultures situated along the various routes came into contact with new ways of seeing and making that spawned innovations in art, industry, and thought.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.
HIST 001H. First-Year Seminar: The

## Modern Jewish Experience

This seminar focuses on the history of European Jewry from the beginning of Jewish emancipation in the 18th century to the aftermath of the Holocaust.
1 credit.
Not offered 2014-2015.
HIST 001J. First-Year Seminar: A New History of the Cold War Era
The opening of the former Soviet Union archives created a firestorm of historical debate concerning the politics of the Cold War. This seminar focuses on that debate and the scholarship introduced into the hotly contested issues of McCarthyism, isolationism and containment, the Korean War, Truman's issuance of the Loyalty Oath, Eisenhower's leadership and the Central Intelligence Agency's role in Guatemala, Iran, Cuba and Nicaragua.
Writing course.
1 credit.
Spring 2015. Murphy.

## HIST 001K. First-Year Seminar:

## Engendering Culture

A seminar focused on the way in which American culture is infused with gender; how culture is constructed and reconstructed to replicate gender roles.
Eligible for GSST or INTP credit.
Writing course.
1 credit.
Not offered 2014-2015.
HIST 001M. First-Year Seminar: History of Food in North America
This seminar introduces first year students to the history of competing food cultures, agricultural production, trade, marketing, and animal husbandry, which produced the diet of the United States in the centuries before the American Civil War.
1 credit.
Not offered 2014-2015.

HIST 001Q. First-Year Seminar: Angels of Death: Russia Under Lenin and Stalin
This seminar focuses on the history of Russia from the Revolution of 1917 through the death of Stalin.
Writing course.
1 credit.
Not offered 2014-2015.
HIST 001R. First-Year Seminar:
Remembering History
Explores the relationship between the creation of personal and collective memory and the
production of history. The seminar will examine the tensions between memory and history in U.S. history, using some of the most acclaimed recent history books. Students will think critically about memoirs and autobiographies, oral histories and personal reminiscences, festivities and holidays of commemoration, historical memory in popular culture, and family lore and stories. What receives the privilege of being remembered and what gets deliberately forgotten constitutes the essence of what we know as history.
Writing course.
1 credit.
Spring 2015. B. Dorsey.

## HIST 001S. First-Year Seminar: The

American West
An introduction to the history of the American West, this course is designed to challenge the myths and legends associated with the role of the West in the history of the United States.
1 credit.
Not offered 2014-2015.
HIST 001T. First-Year Seminar: Cross and Crescent: Muslim-Christian Relations in Historical Perspective
The seminar will selectively explore the interaction of Muslim and Christian communities from the emergence of Islam to contemporary Bosnia.
Eligible for ISLM or MDST credit.
Writing course.
1 credit.
Not offered 2014-2015.
HIST 001X. First-Year Seminar: Crime and Punishment in America
From bucket shops to the Sopranos, this course will focus on America's fascination with crime and its problems with incarceration.
Writing course.
1 credit.
Not offered 2014-2015.

HIST 001Y. First-Year Seminar: The History of the Future
In this seminar, we will trace the history of the idea of "the future," concentrating on 19th- and 20th-century experience.
1 credit.
Not offered 2014-2015.
HIST 002A. Medieval Europe
The course will explore the emergence of Europe from the slow decline of the Roman world and the emergence of new Germanic and Celtic peoples (3rd to the 15th century).
Eligible for MDST credit.
1 credit.
Not offered 2014-2015.

## HIST 002B. Early Modern Europe

Using primary sources, art, recent scholarship, and film, this course explores the origins of the modern world in Europe and its colonies between the 15th and 18th centuries.
1 credit.
Spring 2015. Azfar.
HIST 003A. Modern Europe, 1789 to 1918 The Age of Revolution and

## Counterrevolution

A survey that covers the impact of the French revolution on European politics, society, and culture during the 19th and early 20th centuries. Recommended for teacher certification.
1 credit.
Fall 2014. Staff.
HIST 003B. Modern Europe, 1890 to the Present: The Age of Democracy and Dictatorship
This course surveys major developments in Europe from the end of the 19th century to the end of the 20th century.
Recommended for teacher certification.
1 credit.
Not offered 2014-2015
HIST 004. Latin American History
Drawing on literature, cinema, newspapers, cartoons, music, official documents, and historical essays, this survey course examines the colonial incorporation of the region into the Atlantic economy; the neo-colonial regimes of the 19th and 20th centuries and their diverse and also convergent historical paths; and the challenges and opportunities of earlier and current globalization trends. Emphasis on changes and continuities over five centuries exploring revolutionary, reformist, and conservative agendas of change as well as
gender, class, racial and religious issues.
Eligible for LASC credit.
1 credit.
Spring 2015. Armus.
HIST 005A. The United States to 1877
In this thematic survey of American culture and society from the colonial era through the American Civil War and Reconstruction, student
interpretation of primary-source documents will be emphasized.
Recommended for teacher certification.
1 credit.
Not offered 2014-2015.
HIST 005B. The United States from 1877 to

## the Present

American society, culture, and politics from
Reconstruction to the recent past.
Recommended for teacher certification.
1 credit.
Fall 2014. Murphy.

## HIST 006A. The Formation of the Islamic

 Near EastAn introduction to the history of the Near East from the time of Muhammad to the rise of the Ottomans. Eligible for ISLM or MDST credit. 1 credit.
Not offered 2014-2015.

## HIST 006B. The Modern Middle East

This survey course is designed at once to introduce students to the broader historical narratives and historiographical debates associated with major local, regional, and global events and processes that have most profoundly affected the political, social, cultural, and intellectual realities, past and present, of the modern Middle East.
Eligible for ISLM or PEAC credit.
1 credit.
Not offered 2014-2015.
HIST 007A. African American History, 1619 to 1865
The social, political, and economic history of African Americans from the 1600s to the Civil War focuses on slavery and resistance, the development of racism, the slave family, and cultural contributions of enslaved peoples.
Recommended for teacher certification.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.
HIST 007B. African American History, 1865 to Present
Students study the history of African Americans
from Reconstruction through the present.
Emancipation, industrialization, cultural identity,
and political activism are studied through
monographs, autobiography, and literature.
Recommended for teacher certification.
Eligible for BLST credit.
1 credit.
Fall 2014. A. Dorsey.

## HIST 008A. West Africa in the Era of the

## Slave Trade, 1500 to 1850

This survey course focuses on the origins and impact of the slave trade on West African societies.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.
HIST 008B. Mfecane, Mines, and Mandela: Southern Africa from 1650 to the Present
This course surveys southern African history from the establishment of Dutch rule at the Cape of Good Hope to the present day, focusing on the 19th and 20th centuries.
Eligible for BLST credit.
1 credit.
Spring 2015. Burke.

## HIST 008C. East Africa

A survey of the history of East Africa, with special emphasis on Ethiopia, Somalia and Eritrea from the 18th Century to the present-day.
1 credit.
Not offered 2014-2015.
HIST 009A. Chinese Civilization
In this introductory survey, we will explore the iconic themes of Chinese history, including Confucianism, footbinding, and imperial rule. Our goal is to trace the rise and fall of successive dynasties, shifting social hierarchies, and the traffic of goods and people that underpinned the transformation of China's social, political, and cultural order in the premodern era.
Eligible for ASIA credit.
1 credit.
Spring 2015. Chen.

## HIST 009B. Modern China

This course is an introduction to the intellectual, social, and economic forces that shaped the history of modern China. We will rely heavily on primary sources as we try to reconstruct the plural, contradictory, and fluid ways in which Chinese intellectual and political leaders viewed themselves as "modern."
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.

HIST 012. Chivalric Society: Knights, Ladies, and Peasants
The emergence of a new knightly culture in the
11th and 12th centuries will be explored through the Peace of God, crusades, courtly love, lordship,
and seigneurialism.
Eligible for MDST credit.
1 credit.
Not offered 2014-2015.
HIST 014. Friars, Heretics, and Female Mystics: Religious Turmoil in the Middle Ages
An exploration of radical movements of Christian perfection, evangelical poverty, heresy, and female mystics that emerged in Europe from the 11th to the 15th century.
Eligible for MDST credit.
1 credit.
Not offered 2014-2015.
HIST 015. From Classical Rome to Renaissance Florence: The Making of Urban Europe
The course will explore the emergence of Western towns from the decline of the ancient city to burgeoning of Western urban forms.
Eligible for MDST credit.
1 credit.
Not offered 2014-2015.
HIST 016. Sex, Sin, and Kin in Early Europe
This course will explore the transformation of attitudes regarding sexuality, kinship, structures, marriage, and inheritance from Late Antiquity to the early modern period.
Eligible for GSST or MDST credit.
1 credit.
Not offered in 2014-2015.
HIST 021. London Beyond Control
This course will explore the topsy-turvy world of London in the long 17th century, focusing on the English Civil War, the Scientific Revolution, and the history of sexuality. We will read the work of historians alongside a multifarious assortment of London texts, using the history of the city as a laboratory for examining the nature of modernity. Eligible for GSST credit.
Writing course.
1 credit.
Fall 2014. Azfar.
HIST 022. The Global Enlightenment: Cosmopolitanism between Theory and Practice
This course explores the cultural history of the Enlightenment as a set of ideas and practices brought about by global modernity and imperial
entanglement. We will situate our inquiry around the material histories of objects and spaces: coffeehouses, plantations, flowers, gardens, globes, ships, and panoramas.
1 credit.
Not offered in 2014-2015.
HIST 023. Queer Enlightenment
What was so queer about the Enlightenment? In this course, we will answer this question by looking more closely at Enlightenment desire, studying its sites, texts, and practices through the paradigms of queer history and theory.
1 credit.
Not offered in 2014-2015.
HIST 027. Living with Total War: Europe, 1912-1923
This research seminar examines the experience of Europeans in the trenches, under military occupation, and at home in the turbulent years during and immediately following the First World War.
Optional language attachments: German, French. Eligible for PEAC credit.
1 credit.
Spring 2015. Weinberg.
HIST 031. Revolutionary Iconoclasm:
Tearing Down the Old, Building the New
Students undertake a comparative study of efforts by revolutionaries since 1789 to transform their societies and cultures.
1 credit.
Not offered 2014-2015.
HIST 034. Antisemitism Through the Ages
This course explores the religious, social, economic, political, and intellectual roots of history of antisemitism from late antiquity to the present.
1 credit.
Not offered 2014-2015.
HIST 035. The Modern Jewish Experience
This course focuses on the history of European Jewry from the beginning of emancipation in the late 18th century to the Holocaust.
Eligible for PEAC credit and toward the social science or humanities distribution requirements. 1 credit.
Not offered 2014-2015.
HIST 037. History and Memory:
Perspectives on the Holocaust
This course explores the roots of Nazism, the implementation of the Final Solution, the legacy of the Holocaust on European society, and the representation of the Holocaust through an interdisciplinary approach that relies on primary
sources, historical scholarship, memoirs, poetry, painting, and film.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.

## HIST 038. Russia in the 20th Century

This course explores the Bolshevik seizure of power, the consolidation of communist rule, the rise of Stalin, de-Stalinization, and the collapse of the Soviet Union.
1 credit.
Not offered 2014-2015.
HIST 039. Picking up the Pieces:
Rebuilding Russia after the Collapse of Communism
This course explores the legacy of communism in Russia after the dissolution of the Soviet Union in 1991. We start with an examination of the impact of Stalinism and then turn to the efforts of Mikhail Gorbachev to resuscitate the ailing Soviet Union. The bulk of the course focuses on the impact of the policies of Boris Yeltsin and Vladimir Putin on the economy, culture, society, and politics of Russia since 1991.
1 credit.
Fall 2014. Weinberg.

## HIST 041. The American Colonies

A history of European colonies in North America from 1600 to 1760 .
1 credit.
Not offered 2014-2015.

## HIST 042. The American Revolution

Revolutionary developments in British North
America between 1760 and 1800.
1 credit.
Not offered 2014-2015.

## HIST 043. Antislavery in America

A research seminar in which students explore the history of antislavery, abolitionist, and emancipationist movements in North America from the earliest Atlantic World protests through the era of the American Civil War. The course will include antislavery thought and culture, African American protest and freedom movements, personal narratives, the popular culture of antislavery, and the historical memory of antislavery. This course investigates the construction of race in America and how this has shaped American society, politics, and culture. Writing course.
1 credit.
Spring 2015. B. Dorsey.

HIST 044. American Popular Culture
The history of entertainment and cultural expression in the United States from early America to the contemporary era.
1 credit.
Not offered 2014-2015.
HIST 045. The United States Since 1945
This course is a survey of social, political, and cultural history of the United States since 1945. Topics include: The Cold War, McCarthyism, Civil Rights, Rock n' Roll, TV, Baby Boomers, JFK, gender, LBJ, the Vietnam War, Nixon and Watergate, the Oil Crisis, the rise of the New
Right, Ronald Reagan, George Bush I \& II, Bill Clinton, 9/11, and the Iraq War.
1 credit.
Fall 2014. Murphy.
HIST 046. The American Civil War
The social, cultural and political history of the event often called "the Second American Revolution." This course examines the sectional conflict that prompted the Civil War, the secession crisis, the war years, and Reconstruction; Central themes of American history emerge-freedom, equality, self-determination, racial justice and injustice, economic and class conflict. This course will also explore the continued conflict of the Civil War in American memory and popular culture. 1 credit.
Fall 2014. B. Dorsey.
HIST 048. Murder in a Mill Town: A Window on Social Change During the Early Republic
Topics in the social and cultural history of the United States between the American Revolution and the Civil War.
Writing course.
1 credit.
Not offered 2014-2015.
HIST 049. Race and Foreign Affairs
Race has always played a major part of foreign affairs in the United States just as race relations have dominated in the domestic sphere.
Eligible for LASC, PEAC, or PPOL credit 1 credit.
Not offered 2014-2015.

## HIST 050. The Making of the American

 Working ClassWork, community, race, and gender are examined in the context of class relations in the United States from early America to the present.
Eligible for PPOL credit.
1 credit.
Not offered 2014-2015.

HIST 051. Black Reconstruction
This course recounts the struggle for freedom and national citizenship rights in the post-Civil War era. Black courage and determination secured hard won successes despite "splendid failures." History, fiction, and film treatments will help students gain insights into "America's second Revolution."
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.
HIST 052. History of Manhood in America Meanings of manhood and various constructions of masculine identity in America since the 18th century. A cultural history of gender that explores work, family, sexuality, war, violence, sports, popular culture, and film.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015.

## HIST 053. Black Women in the Civil Rights

## Movement

This study of black women in the modern civil rights movement (1945-1975) explores black women's experiences in the struggle for equal rights in mid-20th century.
Eligible for BLST or GSST credit.
1 credit.
Not offered 2014-2015.
HIST 054. Women, Society, and Politics This course analyzes the history of American women from the colonial period to the present. Eligible for GSST or PPOL credit.
1 credit.
Not offered 2014-2015.

## HIST 056. The Modern American West,

 1850 to the PresentThis course explores the American West from the Dawes Act to the rebellion at Wounded Knee, agricultural/environmental transformation, federal power and corporate influence on the economy and politics of the region.
Prerequisite: An introductory history course.
1 credit.
Not offered 2014-2015.
HIST 058. Africa in America:
Gullah/Geechee Life and Culture
The study of the Gullah/Geechee from their West African origins to contemporary political struggles. Creators of an indigenous "pidgin," crafters of sweet grass baskets, skilled fishermen and growers of Carolina Gold rice, the
Gullah/Geechee have occupied coastal lands from South Carolina to Florida since the 18th century. 21st-century descendants resist displacement as land is claimed for "wildlife sanctuaries."

This course is not open to first-year students. Eligible for BLST credit.
1 credit.
Spring 2015. A. Dorsey.
HIST 059. The Black Freedom Struggle: From Civil Rights to Hip-Hop
This course is devoted to the study of the black efforts to achieve political, social, and economic equality within the United States through protest. This course is not open to first-year students.
Eligible for BLST credit.
1 credit.
Spring 2015. A. Dorsey.
HIST 060. The East India Company, 16001857
The course explores the history of the East India Company, paying special attention to the 18th century and attending to how the history of the East India Company engages questions of capitalism, empire, race, justice, and modernity. Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.
HIST 061. The Histories of Water
(Cross-listed as FMST 035)
This course explores the cultural, social, and political history of water with a focus upon formative events and cultural processes.
Throughout, we will examine the different ways in which the history of water can be plotted into the histories of states, cultures, institutional practices, and social ideologies.
Eligible for ENVS credit.
1 credit.
Fall 2014. Azfar and Cho.

## HIST 062. History of Reading

This course examines the historical evolution of reading, literature, and books from their origins to the present day, but focuses on the post-Gutenberg era, after 1450.
1 credit.
Not offered 2014-2015.
HIST 063. Voices of the Past: Between Oral History and Memory
An examination of the possibilities and limitations
of oral history in the reconstruction of the past.
After an in-depth discussion of key works in the field and an initial exposure to specific methodologies, each student will develop his/her oral history research project.
Eligible for LASC credit.
1 credit.
Not offered 2014-2015.

HIST 063S. Swarthmore: Between Oral History and Memory
This research-oriented seminar aims at exploring the fuzzy territory that lies between the multifaceted record of the past and the past as a remembered personal experience and seeks to contribute to students' original research in the collective exercise of writing the College's past. 1 credit.
Not offered 2014-2015.
HIST 064. Migrants and Migrations: Europeans and Asians in Latin America and Latinos in the United States
The course will explore the interaction between global forces and local and individual circumstances in the migration experience.
Eligible for LASC credit.
1 credit.
Not offered 2014-2015.
HIST 065. Cities of (Im)migrants: Buenos
Aires, Lima, Miami, and New York
The adjustment of European immigrants in Buenos
Aires, internal migrants in Lima, and Latinos in Miami and New York and their roles in the making of modern metropolis.
Eligible for LASC credit.
1 credit.
Not offered 2014-2015.
HIST 066. Disease, Culture, and Society in the Modern World: Comparative

## Perspectives

Discussing Latin American, European, African,
Asian, and North American cases, this course examines public health strategies in colonial and neocolonial contexts; disease metaphors in media, cinema, and literature; ideas about hygiene, segregation and contagion; outbreaks and the politics of blame; the medicalization of society; and alternative healing cultures.
Eligible for INTP, LASC, or PPOL credit. 1 credit.
Spring 2015. Armus.

## HIST 067. Peripheral Modernities: Latin

 American Cities in the 20th CenturyAn exploration of the socio-cultural, economic, and political processes that have shaped the modern experience in Buenos Aires (Argentina) and Lima (Peru).
Eligible for LASC credit.
1 credit.
Not offered 2014-2015.
HIST 068. The Self-image of Modern Latin America
Latin America as it was discussed by Latin
American intellectuals and political actors vis a vis agendas for social, national, and regional change.

The course aims at offering an exposure to the various Latin American ideological climates that throughout the 19th and 20th centuries debated about ideas of progress, civilization,
modernization, reform, revolution, and
globalization.
Eligible for LASC credit.
1 credit.
Not offered in 2014-2015.
HIST 074. The Consuming Passions: Visual and Material Cultures of East Asia This course looks at the visual and material forces that shaped the production of social, political, and gender identities in East Asia during the 15th to 18th centuries. We will look at how gardens, clothing, painting, interior furnishings, among others became key sites of desire, pleasure, and contestation. In reconstructing these sites, our goal is to understand how the consuming passions were implicated in social, economic, and political change.
Eligible for ASIA credit.
Prerequisite: A history course or permission of the instructor.
1 credit.
Spring 2015. Chen.
HIST 075. Thinking Hands: Work and Craft in Premodern China
This seminar explores the practices and meanings associated with "work" and "craft" from the $15^{\text {th }}$ through $18^{\text {th }}$ centuries. Tracing the development of multiple craft industries, we will examine how the process of making objects constituted a distinct form of knowledge production that occurred at the intersection of mind and hand.
Eligible for ASIA credit.
Prerequisite: A history course or permission of the instructor.
1 credit.
Not offered in 2014-2015.
HIST 076. Women's Work in Premodern China
This seminar explores the practices and meanings associated with "women's work" in premodern China. Topics will include reproductive work, household work, textile work, and intellectual work.
Eligible for ASIA or GSST credit.
Prerequisite: A history course or permission of the instructor.
1 credit.
Not offered 2014-2015.
HIST 077. Fashion in East Asia
This course traces the historical development of fashion in China, Japan, and Korea. Using textual, visual, and material sources, we will explore
historical representations of dress, the politics of dress, fashion and the body, and consumption and modernity.
Eligible for ASIA credit.
Prerequisite: A history course or permission of the instructor.
1 credit.
Not offered 2014-2015.

## HIST 078. China, Capitalism, and Their

 CriticsThis course examines the creation of discourse centered on the relationship between China, a nation with distinct cultural characteristics, and capitalism, conceived of as an economic system specific to European social formation. Our aim is to understand how this body of critique has shaped and continues to shape knowledge about China.
Eligible for ASIA credit.
Prerequisite: A history course or permission of the instructor.
1 credit.
Fall 2014. Chen.
HIST 080. History of the Body
Bodies make history and bodies are subject to
history's movements. The history of the body, a relatively recent field of inquiry, encompasses the histories of science, gender, sexuality, race, and empire. This course will explore different chapters of that history, with a focus on Europe and the Atlantic World.
Prerequisite: A history or gender and sexuality course at Swarthmore.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015.

## HIST 081. The History of Food in the

 Modern EraThis mid-level course explores the transformation of the American diet from the end of the Civil War to the present day.
1 credit.
Not offered 2014-2015.
HIST 082. Networks, Simulations, Information: Cultural Histories of Digital Media
This course first asks: is there a "prehistory" of the digital worth considering? It then moves on to the earliest cultural forms and practices associated with digital technology in the 1970s and 1980s, including video game consoles, bulletin boards (BBSs), homebrew computing, and hacking, moving on from there up to 2014. Students will engage in original research about how the history of digital culture shapes contemporary practices. 1 credit.
Fall 2014. Burke.

HIST 083. What Ifs and Might-Have-Beens: Counterfactual Histories
The course will focus on debates about and within the writing of counterfactual histories.
1 credit.
Fall 2014. Burke.

## HIST 084. Modern Addiction: Cigarette

## Smoking in the 20th Century

This course examines the worldwide transformation of the habit of smoking into a medicalized and regulated practice. Emphasis on research projects based on primary sources.
Eligible for LASC credit.
1 credit.
Fall 2014. Armus.

## HIST 089. The Environmental History of

## Africa

This course examines African history from an ecological and environmental perspective. Eligible for BLST or ENVS credit. 1 credit.

Not offered 2014-2015.

## HIST 090B. Irish History

Settlement from Ancient Ireland to the Celts, the rise of the McNeill Kingship, the arrival of St. Patrick, the Norman invasion, and the Flight of the Earls. We examine the darkest hours of Irish History: Cromwell, the Potato Famine, the Easter Uprising, Irish Independence, up to Bloody Sunday in Derry, 1972.
1 credit.
Not offered 2014-2015.

## HIST 090E. On the Other Side of the

Tracks: Black Urban Community
The study of the black community in the United States, from the end of the American Revolution to the end of the 20th century. This course investigates the link between racial identification and community formation, the strengths and weaknesses of the concept of community solidarity, and the role class and gender play in challenging group cohesiveness.
Eligible for BLST credit. 1 credit.
Spring 2015. A. Dorsey.

## HIST 090G. Black Liberation 1969: Black

 Studies in History Theory and Praxis(Cross-listed as BLST 90G)
This research seminar on the civil rights movement and student activism will investigate the history of the black student movement on college campuses in America circa 1968-1972 with an emphasis on unearthing the story of Swarthmore's own black student protest in 1969. Students will write the first accurate history of the black protest as well as develop a creative project
designed to educate the campus and broader community about these events.
1.5 credits.

Fall 2014. A. Dorsey.

## HIST 090H. Africans Explore/Africa

 Explored: A History of Travel by Africans and To AfricaA comparative course looking at histories of travel and exploration within Africa and looking at how Africans have travelled in and commented on the world outside the continent.
1 credit.
Not offered 2014-2015.
HIST 090I. Technologies of the Cold War: AK-47, Structural Adjustment, Green Revolution
Students will examine the material, institutional and political histories of three major technologies associated with the Cold War in Africa between 1945 and the 1990s.
1 credit.
Not offered 2014-2015.
HIST 0900. Digging through the National Security Archive: South American "Dirty Wars" and the United States' Involvement Focusing on 1970s Latin American dictatorships, this course's aims are twofold: firstly, a critical examination of the available scholarship on the socalled "Dirty Wars" that produced the
disappearance of thousands of citizensparticularly young people-in the context of state terrorism; secondly, an exploration of the relations between those Latin American dictatorships and the United States through a rigorous research exercise using the National Security Archive and other primary sources.
Eligible for LASC credit.
1 credit.
Spring 2015. Armus.

## HIST 091. Senior Research Seminar

Students write a 25 -page paper based on primary sources.
Required of all majors, including honors majors.
Writing course.
1 credit.
Fall 2014. Murphy and Weinberg.

## HIST 092. Thesis

A single-credit thesis, available to all majors in their senior year after completion of HIST 091, on a topic approved by the Department. The thesis should be 10,000 to 15,000 words in length (50-75 pages), and a brief oral examination will be conducted upon completion of the thesis. Students may not register for HIST 092 credit/no credit. 1 credit.
Fall 2014 and spring 2015. Staff.

## HIST 093. Directed Reading

Individual or group study in fields of special interest to the student not dealt with in the regular course offerings requires the consent of the department chair and of the instructor.
HIST 093 may be taken for 0.5 credit as HIST 093A.

## Seminars

HIST 111. Muslims, Christians, and Jews in the Medieval Mediterranean
Beginning with common Roman traditions, the Mediterranean during the Middle Ages became divided into three great civilizations: Byzantium, Islam, and Western Christendom. The course will examine the interchange and friction among these three cultures as the sea passed from Islamic to Christian control from the seventh to the 14th century.
Eligible for MDST credit.
2 credits.
Not offered 2014-2015.
HIST 116. European Intellectual History: Pathways to the Enlightenment
This honors seminar will explore European intellectual history from the Renaissance to the post-moderns, with the Enlightenment as the central historical problem. Where did the Enlightenment come from, and what did it result in? We will examine scholarship that has engaged this question in different ways, exploring intersections between the history of European ideas and cultural history, the history of revolutions, the history of sexuality, and the history of Empire.
2 credits.
Spring 2015. Azfar.
HIST 122. Revolutionary Europe, 1750 to 1871
Selected topics in the social, economic, and political history of Europe from the French Revolution to the Paris Commune will be considered.
2 credits.
Not offered 2014-2015.
HIST 125. Fascist Europe
This seminar studies European fascism in the context of societies torn by world war, class conflict, social violence, and economic depression. It focuses on fascist movements, regimes, and cultural politics in Italy and Germany, France, and Romania.
2 credits.
Not offered 2014-2015.

## HIST 128. Russia in the 19th and 20th

 CenturiesThis course focuses on the social, economic, political, and intellectual forces leading to the collapse of the autocracy and the rise of Stalin. Particular attention is devoted to the dilemmas of change and reform, and the problematic relationship between state and society.
Writing course.
2 credits.
Spring 2015. Weinberg.
HIST 130. Early America in the Atlantic World
The "new world" of European and Indian encounter in the Americas, along with the African slave trade, British North American colonies, and the American Revolution.

2 credits.
Not offered 2014-2015.
HIST 131. Gender and Sexuality in America
A social and cultural history of gender and sexuality in the United States from the early republic to the present.
Eligible for GSST credit.
2 credits.
Fall 2014. B. Dorsey.

## HIST 135. Labor and Urban History

A seminar that focuses on history from the bottom up, on working-class people as they build America and struggle to obtain political, social, and economic justice. Topics include urbanization and suburbanization, republicanism and democracy, racism and the wages of Whiteness, gender and work, class and community, popular culture, the politics of consumption, industrialism and the managerial revolution, and jobs and gender.
2 credits.
Spring 2015. Murphy.
HIST 137. Slavery, 1550 to 1865
This seminar focuses on slavery in the United States between 1550 and the end of the Civil War, emphasizing the link between black enslavement and the development of democracy, law, and economics. Topics addressed include the Atlantic slave trade, the development of the Southern colonies, black cultural traditions, and slave community.
Eligible for BLST credit.
2 credits.
Not offered 2014-2015.
HIST 140. The Colonial Encounter in Africa
Students focus on the social, economic, and cultural dimensions of the colonial era in modern Africa.

Eligible for BLST or PEAC credit. 2 credits.
Not offered 2014-2015.

## HIST 145. Chinese Feminism

This seminar traces the creation and transmission of feminist discourses and practices in China. We will explore the dynamics of gender relations, changing views of the body, self, and sex, and institutional change to understand how women as mothers, workers, teachers, nuns, and rulers negotiated power.
Eligible for ASIA or GSST credit. 2 credits.
Not offered 2014-2015.
HIST 148. Issues and Debates in Modern

## Latin America

Explores major problems and challenges Latin American nations have been confronting since the last third of the 19th century onward. Topics include the neocolonial condition of the region, nation and state building processes, urbanization, industrialization, popular and elite cultures, modernities in the periphery, and race, class, and gender conflicts.
Eligible for LASC credit.
2 credits.
Not offered 2014-2015.

## HIST 149. Reform and Revolutions in

## Modern Latin America

The historical problem of change -political, economic, social, and cultural-in peripheral Latin America. It emphasizes on nation-building capitalist ideas, populist experiences that produced deep reformist transformations, and revolutionary processes that started very radical and over time became moderate.
Eligible for LASC credit.
2 credits.
Fall 2014. Armus.
HIST 180. Honors Thesis
2 credits.
Fall 2014 and spring 2015. Staff.

| Coordinator: | MARK WALLACE (Religion) <br> Anna Everetts (Administrative Assistant) |
| :---: | :---: |
| Committee: | Jean-Vincent Blanchard (Modern Languages and Literatures, French) |
|  | Timothy Burke (History) |
|  | Rachel Buurma (English Literature) |
|  | Michael Cothren (Art History) |
|  | Richard Eldridge (Philosophy) |
|  | Sibelan Forrester (Modern Languages and Literatures, Russian) |
|  | Cynthia Halpern (Political Science) ${ }^{2}$ |
|  | Tamsin Lorraine (Philosophy) |
|  | Braulio Muñoz (Sociology and Anthropology) |
|  | Maya Nadkarni (Sociology and Anthropology) |
|  | Patricia Reilly (Art History) ${ }^{3}$ |
|  | Patricia White (English Literature) |

${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

Since 1992, the Interpretation Theory Program has been providing students and faculty with an interdisciplinary forum for exploring the nature and politics of representation. Reaching widely across the disciplines, work done in the minor reflects a long-standing drive to understand the world through the constructs of its interpretive propositions. Students use their programs to develop a flexible, deeply historicized grasp of what is thought today as critical and cultural theory. They also sharpen their skills in critical reading and intellectual analysis.
Students who minor take a total of six courses that build on a combination of classic and current hermeneutic methods. Each year, graduating seniors enroll in a capstone seminar that proposes a structured investigation into an inherently interdisciplinary problem. Faculty team-teach the course as a way of drawing out multi-disciplinary concerns in both theory and practice.

## The Academic Program

## Course Minor

Students complete six credits toward the minor. Three general rules guide the selection:

1. All minors must complete a one-credit capstone seminar that is team-taught by two faculty members from different departments. Students complete this capstone in the spring of their senior year.
2. The three remaining courses are elective. At least four of the six interpretation theory credits must be outside the major.
3. A minimum " $B$ " average is required for all minors by their junior and senior years.
Other courses may be considered upon petition to the Interpretation Studies Committee. These may include relevant courses offered at Bryn Mawr College, Haverford College, and the University of Pennsylvania.

## Honors Minor

All students participating in the Honors Program are invited to define a minor in interpretation theory. Students must complete one preparation for external examination. This 2-credit preparation can be the seminar and a reading attachment or a thesis, a combination of two courses in different departments, a 2-credit thesis, or a combination of a thesis and a course. Any thesis must be multidisciplinary. The proposed preparation must be approved by the Interpretation Theory Committee. Honors minors must meet all other requirements of the interdisciplinary minor in course.

## Capstone Seminars

All minors are required to successfully complete the one-credit capstone seminar, team-taught by two faculty members from different departments, in the spring of their senior year.
Each year, graduating seniors enroll in a capstone seminar that proposes a structured investigation into an inherently interdisciplinary problematic. The capstone seminar embodies both the theoretical and interdisciplinary qualities that make interpretation theory distinctive and compelling.
Students majoring in a variety of disciplines come together with faculty members from two different areas to explore theories of knowledge and questions of interpretation and representation. For example, the past capstone seminars have brought together professors from French literature and biology, political science and religion, sociology/anthropology and English, philosophy and art, and other interdisciplinary combinations. Past capstone titles include: Contested Truths: Questions of Modernity in German Philosophy and Literature; the Classical in Art and Literature; Reworking the Cultural Imaginary; Simultaneity and Monumentality; After Babel:

Poetry, Language and Translation; Mind, Body, Machine; Interpretation and the Visual Arts; Beyond Reason: Nietzsche, Levinas and the Kabbalah; and Mapping the Modern.

## Life After Swarthmore

Respondents to an Interpretation Theory Program alumni survey in 2013 indicated that approximately $54 \%$ went on to graduate school and of those, approximately $67 \%$ pursued a Ph.D. or other doctorate.
Occupations of interpretation theory graduates are diverse and include: physicians, professors, editors, grant writers, an assistant district attorney, and a civil rights investigator.

## Courses

Currently offered courses relevant to the program include the following:

## INTP 090. Directed Reading

1 credit.
Each semester. Staff.

## INTP 091. Discipline + Culture

What kind of object of knowledge and study is culture? Considering both casual uses and complex theories of the idea of culture, this class's readings and case studies will stretch from the 18th through the 21st centuries and span a variety of different disciplines. We will pay special attention to the various ways culture has been constructed as an object of disciplinary knowledge in English and History departments over the last 40 years. How and why has cultural studies-or the study of culture-grown up alongside and come to seem identified with certain types of political and social critique? And what is cultural critique - how have we done it, how do we do it, and what are the alternatives?
Because this course functions as the INTP capstone, we will be especially interested in the ways you may have attended to the concept of culture in your previous and current coursework and independent reading. What relation does the idea of culture bear to your Swarthmore education as you have known it? Assignments will include both collaborative and individual projects, formal and informal writing, and attendance at some additional lectures. Expect visiting speakers, group endeavors, comparative methodologies, studies of materiality, digital methods, and more.
1 credit.
Spring 2015. Azfar, Buurma.

## INTP 092. Thesis

2 credits.
Each semester. Staff.

## Anthropology

ANTH 032D. Mass Media of Anthropology
(Nadkarni)

ANTH 049B. Comparative Perspectives on the Body (Ghannam)
ANTH 072C. Memory, History and Nation (Nadkarni)

Art History
ARTH 164. Modernism in Paris and New York (Hungerford)

Classics
CLST 036. Classical Mythology (Munson)

## English

ENGL 035. The Rise of the Novel (Buurma)
ENGL 080. Critical and Cultural Theory (White)
ENGL 081. Theory of the Novel (Buurma)
ENGL 090. Queer Media (White)
ENGL 091. Feminist Film and Media Studies (White)
ENGL 120. Critical and Cultural Theory (White)
Film and Media Studies
FMST 020. Critical Theories of Film and Media (White)
FMST 045. Feminist Film and Media Studies (White)
FMST 046. Queer Media (White)
FMST 087. American Narrative Cinema (White)
French
FREN 044. Tyrants and Revolutionaries
(Blanchard)
FREN 056. Ecritures au féminin (Rice-Maximin)
FREN 116. La critique littéraire (Blanchard)
History
HIST 001K. Engendering Culture (Murphy)
HIST 017. Social Movements in the Arab World (Bsheer)
HIST 029. Sexuality and Society in Modern
Europe (Judson)
HIST 066. Disease, Culture, and Society in the Modern World (Armus)
HIST 086. The Image of Africa (Burke) HIST 088. Social History of Consumption (Burke)

## Linguistics

LING 070. Translation Workshop (Forrester)

## Literatures

LITR 047R. Russian Fairy Tales
LITR 070R. Translation Workshop (Forrester)
LITR 071F. French Cultural and Critical Theory (Blanchard)
LITR 071S. Latin American Society Through Its Novel (Munoz)
LITR 075S. Borges: Aesthetics and Theory (Martinez)
LITR 076S. Latino and Latin American
Sexualities (Martinez)

## Interpretation Theory

## Philosophy

PHIL 016. Philosophy of Religion (Berger)
PHIL 017. Aesthetics (Eldridge)
PHIL 019. Philosophy of Literature and Film (Eldridge)
PHIL 026. Language and Meaning (Eldridge)
PHIL 039. Existentialism (Lorraine)
PHIL 045. Futures of Feminism (Lorraine)
PHIL 048. German Romanticism (Eldridge)
PHIL 049. Marx, Nietzsche, and Freud (Lorraine)
PHIL 069. Phenomenology (Lorraine)
PHIL 079. Poststructuralism (Lorraine)
PHIL 106. Aesthetics and Theory of Criticism (Eldridge)
PHIL 114. 19th-Century Philosophy (Eldridge)
PHIL 139. Phenomenology, Existentialism, and
Poststructuralism (Lorraine)

## Physics

PHYS 029. Seminar on Gender and (Physical) Science (Graves)

## Political Science

POLS 011. Ancient Political Theory (Halpern)
POLS 012. Modern Political Theory (Berger)
POLS 013. Political Psychology and Moral Engagement (Berger)
POLS 100. Ancient Political Theory (Halpern)
POLS 101. Modern Political Theory (Halpern)

## Religion

RELG 003. The Bible: In the Beginning (Kessler)
RELG 004. New Testament and Early Christianity (Wallace)
RELG 005B. World Religions (Wallace)
RELG 015. Religion and Literature: Blood and Spirit (Wallace)
RELG 015B. Philosophy of Religion (Wallace)
RELG 027. Radical Jesus (Wallace)
RELG 032. Queering God: Feminist and Queer Theology (Kessler)
RELG 112. Post-modern Religious Thought
(Wallace)
RELG 128. Sex, Gender and the Bible (Kessler)

## Russian

RUSS 047. Russian Fairy Tales (Forrester)
RUSS 070. Translation Workshop (Forrester)

## Sociology

SOCI 024C. Latin American Society Through Its Novel (Muñoz)
SOCI 044B. Colloquium: Art and Society (Muñoz)
SOCI 044C. Contemporary Social Theory (Muñoz)
SOCI 044D. Colloquium: Critical Social Theory (Muñoz)

SOCI 044E. Colloquium: Modern Social Theory (Muñoz)
SOCI 101. Critical Modern Social Theory
(Muñoz)
Spanish
SPAN 051. Textos híbridos: crónicas periodísticas y novellas de no-ficción (Martinez)

For the most up-to-date, semester-by-semester list of courses, please consult the program website at www.swarthmore.edu/intp.
Any courses attached to the program, at the time taken, will be counted toward requirements for the minor in interpretation theory.
Other courses may be considered on petition to the Interpretation Theory Committee. These may include relevant courses offered at Bryn Mawr and Haverford colleges and the University of Pennsylvania.

| Coordinator: | KHALED AL-MASRI (Modern Languages and Literatures, Arabic) <br> Anita Pace (Administrative Assistant) |
| :--- | :--- |
| Committee: | Tariq al-Jamil (Religion) <br> Stephen Bensch (History) |
|  | Farha Ghannam (Sociology and Anthropology) <br> Alexandra Gueydan-Turek (Modern Languages and Literatures, French) <br> Steven Hopkins (Religion) |

${ }^{3}$ Absent on leave, 2014-2015.

Swarthmore's Islamic Studies Program focuses on the diverse experiences and textual traditions of Muslims in global contexts. As one of the world's great religions and cultures, Islam has shaped human experience-both past and present-in every area of the world. The academic program explores the expressions of Islam as a religious tradition, the role of Muslims in shaping local cultures, Islamic civilization as a force of development in global history, and the significance of Islamic discourses in the contemporary world. The program offers an undergraduate minor, drawing from the academic disciplines of art history, dance, film and media studies, gender and sexuality studies, history, modern languages and literatures, political science, religion, and sociology and anthropology. The Islamic Studies Program challenges students to consider a wide range of social, cultural, literary, and religious phenomena in both the Arabic and non-Arabic speaking parts of the world. These include aspects of life in countries with Muslim majorities such as Egypt, Syria, Indonesia, Pakistan, Afghanistan, Iran, and Turkey as well as those countries with vital minority communities such as France, Germany, and the United States. A sample of coursework includes The Qur'an and its Interpreters; Islamic Law and Society; Gender, Sexuality, and the Body in Islamic Discourses; Cultures of the Middle East; Culture, Power, Islam; Cultural History of the Modern Middle East; Cities of the Middle East; and Kathak Dance Performance.

## The Academic Program

## Course Minor

All students must take a minimum of 5 Islamic Studies Program credits. Students must follow the guidelines below regarding the required 5 courses.

## Requirements

1. The 5 required courses must cross at least 3 different academic departments.
2. Only 1 of the total 5 credits required by the Islamic studies minor may overlap with the student's major.
3. Students must successfully complete Arabic 004 (and its prerequisites) or the equivalent. This requirement is waived for native speakers of

Arabic and for students who demonstrate sufficient competence by passing an equivalency exam. Alternate fulfillment of the language requirement may also be approved by the Islamic Studies Committee if a student demonstrates competence in another language that is relevant to the study of a Muslim society and is directly related to the student's academic program. Only Arabic courses beginning at the level of Arabic 004 or its equivalent will count toward the total 5 credits in Islamic studies required for the minor.
To supplement classes offered at Swarthmore, students are encouraged to explore and take classes at other nearby colleges, especially Bryn Mawr, Haverford, and the University of Pennsylvania. Students are also strongly encouraged to spend a minimum of one semester abroad in a program approved by both Islamic studies and Swarthmore's Off-Campus Study Office. In addition to furthering the student's knowledge of Islam and Muslim societies, studying abroad is a unique opportunity for personal and intellectual growth.

## Acceptance Criteria

Students interested in Islamic studies are invited to consult with members of the Islamic Studies Committee before developing a proposal for a minor. The proposal should outline and establish how a minor in Islamic studies relates to the student's overall program of undergraduate study and should provide a list of the courses to be taken. The minor is open to students of all divisions.
Students will be admitted to the minor after having completed at least two Islamic studies courses at Swarthmore in different departments with grades of B or better. Applications to the program must be submitted by March 1st of the sophomore year, and all programs must be approved by the Islamic Studies Committee. Deferred students will be reevaluated at the end of each semester until they are either accepted or they withdraw their application.

## Honors Minor

To complete an honors minor in Islamic studies, a student must have completed all the course requirements for the interdisciplinary minor listed above. Students are encouraged to take a 2-credit honors seminar in an Islamic studies topic in either

## Islamic Studies

their junior or senior year. Honors students are required to complete a 2 -credit thesis under program supervision that will count toward the minimum of 5 credits required for the interdisciplinary minor. Students normally enroll for the thesis (ISLM 180) in the fall semester and in the spring semester of the senior year. The honors examination will address the themes explored in the 2-credit thesis.

## Special Major

Students are invited to consider a special major in Islamic studies in consultation with members of the Islamic Studies Committee. The proposal should include the above requirements and should provide a list of the courses.

## Courses

ISLM 180. Honors Thesis
2 credits.
Fall 2014 and spring 2015. Staff.
The following courses may be applied to an academic program in Islamic studies. See individual departments to determine specific offerings in 2014-2015.

## Anthropology

ANTH 009C. Cultures of the Middle East
ANTH 123. Culture, Power, Islam
Art History
ARTH 017. Islamic Architecture
ARTH 043. Islam and the West: Architectural
Cross-currents from the Middle Ages to the 21st Century

## Dance

DANC 046. Dance Technique I: Kathak
DANC 049.6. Performance Dance: Repertory Kathak

History
HIST 001F. First-Year Seminar: "Foreigners" in the Middle East
HIST 001N. First-Year Seminar: Oil and Empire
HIST 001T. First-Year Seminar: Cross and
Crescent: Muslim-Christian Relations in Historical Perspective
HIST 006A. Formation of the Islamic Near East
HIST 006B. The Modern Middle East
HIST 111. Muslims, Christians, and Jews in the Medieval Mediterranean

Modern Languages and Literatures, Arabic
ARAB 004. Intermediate Mdrn Standard Arabic II
ARAB 005A. Arabic Conversations
ARAB 006A. Advanced Arabic Conversations
ARAB 007A. Arabic Communication Workshop
ARAB 011. Advanced Arabic I
ARAB 011A. Arabic Conversation

ARAB 012. Advanced Arabic II
ARAB 012A. Advanced Arabic Conversation
ARAB 013A. Foreign Language Teaching and Pedagogy
ARAB 014. Advanced Arabic Through Reading
ARAB 018A. Culture Context of Arabic Music
ARAB 020. Arabic Literature in Cross-Cultural Context
ARAB 021. Introduction to Modern Arab Literature
ARAB 025. War in Arab Literature and Cinema (Cross-listed as LITR 025A)
ARAB 027. Writing Women in Modern Arabic Fiction
ARAB 030. Literature of Resistance (Cross-listed as LITR 030A)
ARAB 040. Introduction to Arabic Literature
ARAB 045. Contemporary Thought in the Arab World
ARAB 076. Contemporary Arab Women Writers (Cross-listed as FREN 076 and LITR 076AF)

Modern Languages and Literatures, French
FREN 045B. Le monde francophone: France and the Maghreb: Postcolonial Writing in a
Transnational Context
FREN 111. Post-Colonial Desire
Modern Languages and Literatures,
Literatures in Translation
LITR 076F. Female Authors from the Arab World
Modern Languages and Literatures,
Russian
RUSS 023. Muslim in Russia (Cross-listed as LITR 023R)

## Political Science

POLS 078. Iran, Islam and the Last Great Revolution
POLS 082. The Politics of Schooling in Latin America and the Middle Ease

## Religion

RELG 001C. Religion and Terror in an Age of Hope and Fear
RELG 008B. The Qur'an and Its Interpreters
RELG 011B. The Religion of Islam: The Islamic Humanities
RELG 013. The History, Religion, and Culture of India II: Muslim, Hindu, Sikh, and Dalit in North India
RELG 053. Gender, Sexuality, and the Body in Islamic Discourses
RELG 054. Power and Authority in Modern Islam
RELG 100. Holy War, Martyrdom, and Suicide in Christianity, Judaism, and Islam
RELG 119. Islamic Law and Society
RELG 127. Secrecy and Heresy

| Coordinator: | MILTON MACHUCA-GALVEZ (Latin American Studies) <br> Anna Everetts (Administrative Assistant) |
| :--- | :--- |
| Committee: | Diego Armus (History) <br> Jose Luis Machado (Biology) <br> Christopher Fraga (Anthropology) <br> Braulio Muñoz (Sociology) <br> Kenneth Sharpe (Political Science) |
|  |  |

Swarthmore's Latin American Studies Program explores the rich diversity-as well as the similarities-among and within Latin American countries and cultures. The program also investigates the broad dynamics shaping Latino experiences in the United States. Participants in the program engage with a variety of disciplines to consider what defines "Latin America." Spoken language; literature; pre-colonial, colonial, and modern history; native, immigrant, and diasporic experiences; politics; socioeconomic conditions; religion; social structures; architecture; and political borders are all considered in this farranging and inclusive course of study. Students in any major may add a minor in Latin American studies. Courses from art history, history, modern languages and literatures, political science, religion, sociology and anthropology contribute to this exciting interdisciplinary program.
Most of our students spend one semester in Latin America. Studying beyond the traditional classroom walls provides students with invaluable opportunities for enriching intellectual experiences and personal growth.

## The Academic Program

Students interested in the Latin American Studies Program (LAS) are invited to consult with the program coordinator and members of the LAS Committee before developing a proposal. The proposal should establish how Latin American studies relates to the overall program of undergraduate study and to the departmental major. The minor is open to students of all divisions.

## Course Minor

Latin American Studies minors must complete the following requirements:

## Language:

LAS requires the successful completion of SPAN 004 Intensive Advanced Spanish or its equivalent.
This requirement is waived for native speakers of Spanish and for students who demonstrate sufficient competence in this language, as determined by the LAS Committee. Note: LAS credit is not offered for language courses.

## Courses:

Students must complete a minimum of 5 Latin American studies approved courses and seminars.

- These 5 courses must span the two divisions (Humanities and Social Sciences).
- In order to develop a basic introduction to Latin America, students must complete one of the following 3 courses: LASC 005: Introduction to Latino Studies, HIST 004: Introduction to Latin American History, or SPAN 010: En busca de Latinoamérica, by their sophomore year.
- Only 1 of the total 5 courses required by the Latin American Studies minor may overlap with a student's major or other minor.
- To graduate with a minor in Latin American studies, a student must maintain a minimum grade of " $B$ " in the program, and a " $C$ " average in any other course work.


## Study Abroad

- Students are required to spend a minimum of one semester abroad in a program approved by both the Latin American Studies Program and the Off-Campus Study Office. The experience of living and studying abroad in any Latin American Spanish-speaking country is strongly encouraged by Latin American studies faculty. By extending learning beyond the traditional classroom, students have distinctive opportunities for enriching intellectual experiences and unique opportunities for personal growth. Swarthmore College hosts a study-abroad program in Buenos Aires, Argentina. Students are also welcome to choose from a selection of approved programs available in other locations throughout Latin America. Students may apply two courses from work taken abroad in Latin America to their Latin American studies academic program.
- Courses taken abroad must have a clear Latin American focus and must be preapproved by the appropriate department in order to count for the LAS minor.
- Study abroad must be pursued in Spanish. Students must complete Spanish 004, or its equivalent, before going abroad.
- Language courses are not eligible for study abroad credit.
- Students are strongly encouraged to complete the introductory requirement of one of the 3 following courses: LASC 005, Spanish 010, or History 004 ) before going abroad.
- The study abroad requirement may be waived for students who have lived and studied in Latin America for a number of years, but they must apply for this waiver at the time of being considered for the minor.
- Only in exceptional cases, with the support of a faculty member and the approval of the LAS Committee, will a semester's internship or a community service project in Latin America fulfill this requirement.


## Honors Minor

To complete an honors minor in Latin American studies, students must have completed all requirements for the interdisciplinary minor. From within these offerings, they may select for outside examination a seminar taken to fulfill the interdisciplinary minor's requirements. However, the seminar chosen may not be an offering within their major department.

## Special Major

With the permission of the departments concerned, it is possible for a student to plan an individualized special major that includes closely related work in one or more departments. Students have the possibility of designing a special major, such as Spanish and Latin American Studies; Latin American Studies and Political Science, Latin American Studies and History; and Latin American Studies with a focus on Sociology and Anthropology, etc.
Special majors consist of at least 10 courses and no more than 12 courses.
Students with special majors must complete the major comprehensive requirement of the departmental major which may consist of a thesis or other written research project designed to integrate the work across departmental boundaries, or a comprehensive examination. In all cases, this final exercise will integrate the work done in Latin American studies and the department involved.

## Life After Swarthmore

Swarthmore graduates who have taken part in the Latin American Studies Program find that their rich understanding of the cultures and people of Latin America and Latinos in the U.S. is attractive to employers. Graduates most frequently pursue careers in public service, law, government, education, humanities, social sciences, and the media.

## Courses

The following courses may be counted toward Latin American studies:

## LASC 005. Intro: Latinola Studies

This course will provide an introduction to the major concepts, issues, and debates in the field of

Hispanic/Latino Studies utilizing an interdisciplinary approach to the study of Hispanic/Latin@ communities in the United States, namely those of Mexican, Puerto Rican, Cuban, Caribbean, Central American and South American origin. The course presents a basic intellectual map for understanding both the similarities and the differences between contemporary Hispanic/Latin@ communities, i.e., what internal and external, affect them. Major themes include: the politics of labeling and subsequent questions of identity; immigration, migration, and communities formation histories; gender; race and racial constructions; language/bilingualism; educational experiences; media representation; labor markets; and demographic trends.
1 credit.
Fall 2014. Machuca-Galvez.
LASC 010. First-Year Seminar: (B)orders and (Dis)orders: (Im)migration, and Imagined Communities
This course will focus on social, economic, and political forces pushing/pulling people from Latin American to the United States. We will examine how "Spanish," "Hispanics," and "Latinos" adjust, integrate, assimilate, resist, and adapt to the many forces affecting their lives and how they are creating new ethnic, racial, and local identities. Major theme patterns that will be included will be: second-class citizenship, identity formation, assimilation, ethnic culture, community maturation, labor struggles, economic contributions, social mobility, and immigration policy.
1 credit.
Fall 2014. Machuca-Galvez.

## LASC 025. In Quest of God: The Latin

## American Religious Arena

(Cross-listed as RELG 043)
This course explores distinct historical, sociocultural contexts, political and economic processes in which historical varieties of Catholicism have emerged in Latin America. Understanding religion as generative, this course will examine the foundations, theological themes, and processes of pre-Hispanic indigenous practices, and Spanish Colonial Catholicism, the public role of the Catholic Church in struggles for justice and human rights in the 1960-1990 period expressed by Liberation Theology, the recent growth of Protestantism with a focus on Pentecostalism, the "end of revolutionary utopias," the contemporary praxis of Catholicism, the public emergence of native spiritualities, and diaspora religions of the Caribbean, Brazil and Latinos in the United States. 1 credit.
Spring 2015. Machuca-Galvez.

## LASC 040. Social Movements in Latin

 America: Gender and Queer Perspective (Cross-listed as ANTH 040J)Since the 1980s, the contemporary forces of neoliberalism, re-democratization and globalization have profoundly reshaped the societies of Latin America. Against this backdrop of change, people who have long been politically marginalizedindigenous groups, women, peasants, gays, Blacks-have struggles to assert their rights and make their voices heard. In this course we will focus on gender and queer identities in Latin America through a social movements lens. 1 credit.
Spring 2015. Machuca-Galvez.
LASC 080. Mexican Pennsylvania: The Making of a Transnational Community
A large flow of urban service workers have arrived in Philadelphia in the last 20 years. In spite of the economic downturn and aggressive law enforcement, an unprecedented number of Mexican immigrants are still at work in the United States. What are the legislative proposals to end or rationalize their migration? What obstacles do they face as they look at the future of their children? How are their ties to Mexico maintained? We will look for answers to these and other questions.
Taught in English, students must be fluent in Spanish. Enrollment limited to 15.
1 credit.
Not offered 2014-2015. Machuca-Galvez.

## LASC 090. Thesis

1 credit.
Each semester. Staff.
LASC 180. Senior Honors Thesis 2 credits.
Fall 2014 and spring 2015. Staff.

## Anthropology

ANTH 040J. Social Movements in Latin America:
Gender and Queer Perspective
ANTH 041B. Visions of Latin America
ANTH 041C. Visual Cultures of Mexico and Aztlán
ANTH 051B. Drugs and Governance in the Americas
Art History
ARTH 023. Art of the Ancient Americas

## Economics

ECON 028. Economics of Latin America

## Education

EDUC 153. Latinos and Education
History
HIST 001E. Past and Present in Latin America
HIST 004. Latin American History

HIST 049. Race and Foreign Affairs
HIST 051. Race and Poverty in the United States
HIST 063. Voices of the Past: Oral History and Memory
HIST 064. Migrants and Migrations: Europeans in Latin America and Latinos in the U.S.
HIST 065. Cities of (Im)migrants: Buenos Aires, Lima, Miami, New York
HIST 066. Disease, Culture, and Society in the Modern World: Comparative Perspectives
HIST 067. Peripheral Modernities: Latin American Cities in the 20th Century
HIST 068. The Self-Image of Latin America
HIST 084. Modern Addiction: Cigarette Smoking in the 20th Century
HIST 148. Issues and Debates in Modern Latin America
HIST 149. Reform and Revolution in Modern Latin America

## Literatures

LITR 009S. A New World: Conquests, Encounters
in Colonial Latin America
LITR 070S. The Persistent Power of Central
American Literature
LITR 071S. Latin American Society Through Its Novel
LITR 074S. Queer Issues in Latin American Literature and Cultural
LITR 075S. Borges: Aesthetics and Theory
LITR 076S. Latino and Latin American Sexualities

## Political Science

POLS 057. Latin American Politics
POLS 081. Politics of Schooling in Latin America and the Middle East *
POLS 109. Comparative Politics: Latin America

## Religion

RELG 043. In Quest of God: The Latin American Religious Arena
RELG 109. Afro-Atlantic Religions
Sociology
SOCI 024B. Latin American Society and Culture SOCI 024C. Latin American Society Through Its Novel

Spanish
SPAN 010. En busca de Latinoamérica
SPAN 023. Introducción a la literatura
latinoamericana
SPAN 052. Imaginarios culturales caribeños
SPAN 070. Género y sexualidad en Latinoamérica
SPAN 072. Seducciones literarias-traiciones fílmicas
SPAN 073. El cuento latinoamericano

## Latin American Studies

SPAN 076. La novela latinoamericana
SPAN 080. Los hijos de la Malinche
SPAN 082. Mexico lindo y maldito
SPAN 083. El tirano latinoamericano en la
literatura
SPAN 084. Mexico, 1968: la violencia de ayer y hoy
SPAN 087. Cruzando fronteras: migración y transnacionalismo en el cine mexicano
SPAN 088. Pasados desgarradores: trauma y afecto en la literatura centroamericana de posguerra
SPAN 087. Cruzando fronteras: migración y
transnacionalismo en el cine mexicano
SPAN 103. Horacio Castellanos Moya
SPAN 106. Visiones narrativas de Carlos Fuentes
SPAN 108. Jorge Luis Borges
SPAN 110. Política y póetica: los mundos de
Pablo Neruda, Octavio Paz y Ernesto Cardenal

## Linguistics

THEODORE B. FERNALD, Professor and Chair
DONNA JO NAPOLI, Professor ${ }^{1}$
K. DAVID HARRISON, Associate Professor

BROOK D. LILLEHAUGEN, Assistant Professor (Tri-College)
EMILY A. GASSER, Visiting Assistant Professor
NATHAN SANDERS, Visiting Assistant Professor
JAMIE A. THOMAS, Visiting Assistant Professor
SHELLEY DEPAUL, Instructor
MELANIE DROLSBAUGH, Instructor
DOROTHY KUNZIG, Administrative Assistant
${ }^{1}$ Absent on leave, fall 2014.

## What is Linguistics?

There are 7,000 languages in the world.
Linguistics is the scientific study of language-we develop techniques to explore patterns that all human languages have in common and investigate the ways in which each is unique. Our explorations yield insights not only about languages, but also about the nature of the human mind.
The relevance of linguistics to the fields of anthropology, cognitive science, language study, philosophy, psychology, and sociology has been recognized for a long time. Linguistics cross list courses from ten departments, reflecting the diversity of fields with strong relevance to our field. The interdisciplinary nature of the field, and our program, further encourages students to broaden their horizons and interact with a wide variety of students, scholars, and ideas.

## What we hope students will get from

 studying LinguisticsBecause the very nature of modern linguistic inquiry is to build arguments for particular analyses, the study of linguistics gives the student finely honed argumentation skills, which stand in good stead in careers in law, business, and any other profession where such skills are crucial.

## Linguistics at Swarthmore, Bryn Mawr College, and Haverford College

The Linguistics Department is a constituent in the Tri-College Linguistics Department, which includes courses at Bryn Mawr College and Haverford College. Linguistics courses at Swarthmore College regularly include students from all three schools.

## The Academic Program

The Linguistics Department offers a course major, a course minor, an honors major, and an honors minor. In addition, a special course major and a special honors major are offered in linguistics and languages.

## Course Major: Linguistics

The course major in linguistics consists of at least eight credits in linguistics, including all of the following:

1. A course in sounds from the following list: LING 045, 052.
2. A course in forms: LING 050.
3. A course in meanings from the following list: LING 026, 040.
4. A course in the Structure of a Non-IndoEuropean Language: typically LING 061, 062, or 064.
5. LING 100, in which students complete and defend a one or two-credit senior thesis. This course constitutes the comprehensive requirement for the major.
6. Two electives in linguistics.

LING 001 (Introduction to Language and Linguistics) may be included in the major at the student's option.

## Special Course Major: Linguistics and Languages

The special course major in linguistics and languages consists of at least twelve credits: six credits in linguistics and three credits in each of two languages. The languages can be ancient or modern. Students must complete each of the following:

1. A course in sounds from the following list: LING 045, 052.
2. A course in forms: LING 050.
3. A course in meanings from the following list: LING 026, 040.
4. A course in the Structure of a Non-IndoEuropean Language: typically LING 061, 062, or 064.
5. LING 100, in which students complete and defend a one or two-credit senior thesis. This course constitutes the comprehensive requirement for the major.
For a language taught by the Modern Languages and Literatures Department, there must be one course numbered 4 or above, two courses
numbered 11 or above or a seminar. For a language taught by the Classics Department there must be one intermediate-level course numbered 11-14 and one seminar.
Some work in each foreign language included in the major must be done in the student's junior or senior year.
If one or both of the foreign languages is modern, the student must study abroad for at least one semester in an area appropriate for one of the foreign languages.

## Course Minor

Four minors are offered, each totaling 5 credits (courses below plus any other two credits in linguistics):

- Theory: LING 040, LING 045, LING 050
- Phonology/Morphology: LING 045, LING 043, and LING 052 or LING 025
- Syntax/Semantics: LING 040, LING 050, LING 043
- Individualized: Student may choose five courses in linguistics and provide justification why the courses form a coherent minor.


## Honors Major

The honors major in linguistics consists of at least eight credits in linguistics, and includes all of the following:

1. A course in sounds from the following list: LING 045, 052.
2. A course in forms: LING 050.
3. A course in meanings from the following list: LING 026, 040.
4. A course in the Structure of a Non-Indo-

European Language: typically LING 061, 062, or 064.
5. LING 195, in which students complete and defend a two-credit senior thesis. This course constitutes the comprehensive requirement for the major.
6. Two electives in linguistics.
7. Complete and defend an honors major portfolio as explained below.

## Honors Major Portfolio requirements:

Thesis: Students are required to write a two-credit thesis in LING 195 (Senior Honors Thesis) in the fall of their senior year. The thesis may be on any topic in linguistics. It need not be related to course work. Work may be collaborative with one other student at the discretion of the faculty. The oral examination will consist of a discussion of up to one hour with the external reader.
Research Papers: Students are required to write two research papers. The student will prepare for these research papers by taking at least four credits of course work (two credits in each of the research paper areas). The areas will be selected from any
combination of the following, possibly in combination with other course work:

- phonetics
- phonology
- morphology
- syntax
- semantics
- historical and comparative
- sociolinguistics

Students will take LING 199 (Senior Honors Study) for one credit in the spring of their senior year. The two research papers will be on topics selected by the external readers and must be directly related to course work the student has taken.
Students will work independently on their research papers. The oral examination will consist of a forty-five minute discussion with the external reader for each paper. The discussion will cover the papers and any other material pertinent to the two credits of course work offered in preparation for the paper.

## Honors Special Major Linguistics and Languages

The special honors major in linguistics and languages consists of at least twelve credits: six credits in linguistics and three credits in each of two languages. The languages can be ancient or modern. Students must complete each of the following:

1. A course in sounds from the following list: LING 045, 052.
2. A course in forms: LING 050.
3. A course in meanings from the following list: LING 026, 040.
4. A course in the Structure of a Non-IndoEuropean Language: typically LING 061, 062, or 064.
5. LING 195, in which students complete and defend a two-credit senior thesis. This course constitutes the comprehensive requirement for the major.
6. Complete and defend an honors major portfolio as explained below.

Honors Special Major Linguistics and Languages portfolio requirements:
Thesis: Students are required to write a two-credit thesis in LING 195 (Senior Honors Thesis) in the fall of their senior year. The thesis may be on any topic in linguistics. It need not be related to course work. Work may be collaborative with one other student at the discretion of the faculty. The oral examination will consist of a discussion of up to one hour with the external reader.
Research Papers: Students are required to write two research papers in linguistics and one research paper in a language that is administered by the
relevant language department. The student will prepare for the linguistics research papers by taking at least four credits of course work (two credits in each of the research paper areas). The areas will be selected from any combination of the following, possibly in combination with other course work:

- phonetics
- phonology
- morphology
- syntax
- semantics
- historical and comparative
- sociolinguistics

The third research paper is administered by the relevant language department.
Students will take LING 199 (Senior Honors Study) for one credit in the spring of their senior year. The three research papers will be on topics selected by the external readers and must be directly related to course work the student has taken.
Students will work independently on their research papers. The oral examination will consist of a forty-five minute discussion with the external reader for each paper. The discussion will cover the papers and any other material pertinent to the two credits of course work offered in preparation for the paper.

## Honors Minor

If a student is a course major in Linguistics as well as an honors minor in Linguistics, the thesis required for the course major constitutes the portfolio for the honors minor.
Honors minors who are not course majors in linguistics will satisfy the course minor and complete and defend their honors minor portfolio as explained below.

## Honors Minor portfolio requirements:

A single research paper will constitute the portfolio for honors. The areas will be selected from any combination of the following:

- phonetics
- phonology
- morphology
- syntax
- semantics
- historical and comparative
- sociolinguistics

The program requires a one-half credit in LING 199 (Senior Honors Study) in the spring of the senior year. The oral examination will consist of a discussion of up to one hour with the external reader.

## Thesis / Culminating Exercise

Every senior linguistics major or linguistics and language major must write a thesis during the fall semester of their senior year.

## Application Process Notes for the Major or the Minor

Please follow the process described by the Dean's Office and the Registrar's Office about how to apply for a major.
Please contact our department office and request a Sophomore Plan form, or get it online at www.swarthmore.edu/SocSci/Linguistics/xling14.h tml . Submit the completed form to the department office.

## Advanced Placement/International Baccalaureate Credit

Linguistics does not accept AP/IB credit.

## Transfer Credit

Linguistics does accept transfer credit. Please contact the department for more information.

## Off-Campus Study

Students who special major in linguistics and languages and who focus on two modern languages must spend at least one semester abroad in an area appropriate for one of the foreign languages.
Students planning on a semester abroad must consult with their adviser and the Linguistics Department. Upon return from study abroad, students must present all written work to the department in order to have the course work considered for credit here, including class notes, syllabi, examinations, and papers.

## Sample Paths through Linguistics

There are many acceptable paths through the major. We urge students to talk with their advisers to find the one that is best suited to their interests, bearing the following considerations in mind.
The end of the path is satisfaction of the requirements for the major. The most intricate of these is successful completion of the senior thesis. While students are permitted to complete one or more of the core requirements (courses in sounds, forms, and meanings) during their senior year, doing so will preclude writing a senior thesis in one of these areas. We strongly recommend completing these requirements by the end of the junior year. Because students frequently develop thesis topics during their courses in the Structure of a Non-Indo-European Language, we also recommend satisfying this requirement by the end of the junior year. Syntax (LING 050) and Phonetics and Phonology (LING 045) are prerequisites for the Structure of a Non-Indo-

## Linguistics

European Language (LING 061, 062, 064), the faculty urge students to take these courses by the end of the fall semester of the junior year.

## Courses

LING 001. Introduction to Language and Linguistics
Introduction to the study and analysis of human language, including sound systems, lexical systems, the formation of phrases and sentences, and meaning, both in modern and ancient languages and with respect to how languages change over time. Other topics that may be covered include first-language acquisition, sign languages, poetic metrics, the relation between language and the brain, and sociological effects on language.
Writing course.
1 credit.
Fall 2014. Gasser. Spring 2015. Lillehaugen.
LING 002. First-Year Seminar: The Linguistic Innovation of Taboo Terms and Slang
Taboo terms vary in topic across language communities: religion, sex, disease and death, and bodily effluents are common, but other topics can appear, often depending on nonlinguistic factors (community size, demographics, and cultural beliefs). Taboo terms also vary in how they are used: exclamations, name-calling, and maledictions are common, but other uses can appear, such as modifiers and predicates. Over time less common uses tend to semantically bleach, so that historical taboo terms can be used without hint of vulgarity or rudeness. These less common uses can fall together with slang in exhibiting linguistic behavior unique within that language, at the word level and the phrase and sentence level, behavior that is telling with respect to linguistic theory. Each student will choose a language other than English to investigate. 1 credit.
Not offered 2014-2015.
LING 004. First-Year Seminar: American Indian Languages
At least 300 languages were spoken in North America before the first contact occurred with Europeans. Most of the surviving languages are on the verge of extinction. Students will learn about language patterns and characteristics of language families, including grammatical classification systems, animacy effects on sentence structure, verbs that incorporate other words, and evidentials. Topics include how languages in contact affect each other, issues of sociolinguistic identity, language endangerment and revitalization efforts, and matters of secrecy and cultural theft. 1 credit.

Not offered 2014-2015.

LING 006. First-Year Seminar: Language and Deafness
This course will look at many issues connected to language and deaf people in the United States, with some comparisons to other countries. We will consider linguistic matters in the structure of American Sign Language (ASL) as well as society matters affecting users of ASL, including literacy and civil rights. Students will be engaged in a project to make ebooks to help promote literacy among deaf children. There will be "field" trips to the Pennsylvania School for the Deaf and collaborative work with students in a sister course at Gallaudet University. All students are encouraged to gain a rudimentary knowledge of ASL or to concurrently register for LING 011 for 1 credit.
All students are welcome to do a community service credit in LING 095.
1 credit.
Fall 2014. Napoli.

## LING 007. Hebrew for Text Study I

(See RELG 057)
This course counts for distribution in humanities under the religion rubric and in social sciences under the linguistics rubric.
1 credit.
Spring 2015. Plotkin.
LING 010. Hebrew for Text Study II
(See RELG 059)
1 credit.
Fall 2014. Plotkin.
LING 011. American Sign Language I
Introduction to learning and understanding American Sign Language (ASL), and the cultural values and rules of behavior of the American Deaf community. Includes receptive and expressive readiness activities; sign vocabulary; grammatical structure; facial expressions (emotional \& grammatical), body/spatial movement, gestures; receptive and expressive fingerspelling; and deaf culture do's and don'ts. Specific concepts/topics include the number/letter basics, identifying people, activities, places, and family.
1 credit.
Fall 2014. Drolsbaugh
LING 014. Old English/History of the Language
(See ENGL 014)
This course counts for distribution in humanities under the English rubric and in social sciences under the linguistics rubric.
1 credit.
Not offered 2014-2015.
LING 015. Lenape Language Study
Students will gain a working knowledge of the structure of the Lenape Language. The course

## Linguistics

covers conversation, grammar, and usage, as well as discussion of the conceptual elements inherent in this Algonquian language. Topics will include elements of Lenape culture, songs in the language, and discussion of the current status of Lenape as an endangered language.
1 credit.
Spring 2016. DePaul.
LING 020. Computational Linguistics: Natural Language Processing (See CPSC 065)
Prerequisites: CPSC 035 (or the equivalent).
Eligible for COGS credit 1 credit.
Fall 2014. Wicentowski.
LING 025. Sociolinguistics: Language, Culture, and Society
(Cross-listed as SOAN 040B)
This course is an introduction to sociolinguistics and the study of language variation and change, with a focus on variation in North American English. Topics to be examined include the following: How do social factors such as age, gender, ethnicity, and socioeconomic class influence the way people use language? How do individual speakers use language differently in different situations? How do regional dialects differ from each other, and why? How does language change spread within a community and between communities? In learning the answers to these questions, students will carry out sociolinguistic field projects to collect and analyze data from real-life speech.
1 credit.
Fall 2014. Thomas.
LING 026. Language and Meaning
(See PHIL 026)
This course counts for distribution in humanities under the philosophy rubric and in social sciences under the linguistics rubric.
1 credit.
Eligible for COGS credit.
Fall 2014. Baumann.
LING 033. Introduction to Classical Chinese
(See CHIN 033)
This course counts for distribution in humanities or social sciences under either rubric.
1 credit.
Spring 2015. Berkowitz.
LING 034. Psychology of Language
(See PSYC 034)
1 credit.
Not offered 2014-2015.

## LING 040. Semantics

(Cross-listed as PHIL 040)
In this course, we look at a variety of ways in which linguists, philosophers, and psychologists have approached meaning in language. We address truth-functional semantics, lexical semantics, speech act theory, pragmatics, and discourse structure. What this adds up to is an examination of the meaning of words, phrases, and sentences in isolation and in context.
This course counts for distribution in humanities under the philosophy rubric and in social sciences under the linguistics rubric.
Writing course.
Eligible for COGS credit.
1 credit.
Fall 2014 and spring 2015. Fernald.
LING 043. Morphology and the Lexicon
This course looks at word formation and the meaningful ways in which different words in the lexicon are related to one another in the world's languages.
Prerequisite: LING 001 or 045.
Eligible for COGS credit.
1 credit.
Spring 2015. Gasser.
LING 045. Phonetics and Phonology
Phonetics explores the full range of sounds produced by humans for use in language and the gestural, acoustic, and auditory properties that characterize those sounds. Phonology investigates the abstract cognitive system humans use for representing, organizing, and combining the sounds of language as well as processes by which sounds can change into other sounds. This course covers a wide spectrum of data from languages around the world and focuses on developing analyses to account for the data. Argumentation skills are also developed to help determine the underlying cognitive mechanisms that are needed to support proposed analyses.
Eligible for COGS credit.
1 credit.
Fall 2014. Sanders.

## LING 050. Syntax

We study the principles that govern how words make phrases and sentences in natural language. Much time is spent on learning argumentation skills. The linguistic skills gained in this course are applicable to the study of any modern or ancient natural language. The argumentation skills gained in this course are applicable to law and business as well as academic fields.
Writing course.
Eligible for COGS credit.
1 credit.
Fall 2014. Napoli. Spring 2015. Gasser.

LING 052. Historical and Comparative Linguistics
This course is an introduction to the study of linguistic history in the following sense: (i) The languages we are speaking are constantly changing. Over longer periods of time, these small changes build up to significant changes. (ii) As groups of speakers whose ancestors once spoke the same language become separated, their languages
diverge. This leads to a split into separate daughter languages, which often end up being mutually incomprehensible. The question is, how is it possible to figure out and reconstruct the changes and splits that occurred in the distant past in languages that are no longer spoken and were perhaps never recorded? The method applied by historical linguists to solve this problem, the main focus of this course, is called the 'comparative method.' We will draw on material from a wide range of languages, focusing mainly on sound change and morphological analogy.
Eligible for BLST credit.
Prerequisite: LING 001 or 045 or permission of the instructor.
1 credit.
Fall 2014. Sanders.
LING 053. Language Minority Education in the U.S.: Issues and Approaches
(See EDUC 053)
1 credit.
Spring 2015. Allard.

## LING 054. Oral and Written Language

(Cross-listed as EDUC 054) (Studio course)
This course examines children's dialogue and its rendering in children's literature. Each student will pick an age group to study. There will be regular fiction-writing assignments as well as primary research assignments. This course is for linguists and writers of children's fiction and anyone else who is strongly interested in child development or reading skills. It is a course in which we learn through doing. All students are welcome to do a community-service credit in LING 096.
Prerequisite: LING 001, 043, or 045 and LING 040 or 050 . Can be met concurrently.
Writing course.
1 credit.
Not offered 2014-2015.

## LING 061. Structure of Navajo

Navajo is an Athabaskan language spoken more commonly than any other Native American language in the United States. This course is an examination of the major phonological, morphological, syntactic, and semantic structures of Navajo. The morphology of this language is legendary. This course also considers the history of the language and its cultural context.
Eligible for COGS credit.

Prerequisites: LING 050 and 045 or 052 or permission of the instructor.
1 credit.
Spring 2015. Fernald.

## LING 062. Structure of American Sign

 LanguageIn this course, we look at the linguistic structures of ASL: phonetics, phonology, morphology, syntax, semantics, and history. We also discuss issues of culture, literacy, and politics pertinent to people with hearing loss. All students are encouraged to gain a rudimentary knowledge of American Sign Language, or to concurrently register for Ling 011 for one credit.
Eligible for COGS credit.
Prerequisites: LING 050 and 045 or 052 or permission of the instructor.
All students are welcome to do a communityservice project in LING 095.
Writing course.
1 credit.
Not offered 2014-2015.

## LING 063. Supporting Literacy Among

 Deaf ChildrenIn this course, we will develop ebooks for young deaf children. Adults can "read" these books with the children regardless of their knowledge of American Sign Language (or lack thereof). Working from beloved picture books, we will add video clips of actors signing the stories as well as voice-overs and questions about sign language that the interested reader can click on to find information.
Students must have a rudimentary knowledge of American Sign Language or concurrently take an attachment in ASL language. A background in linguistics, theater, film, early childhood development, or education would be helpful. Students from Gallaudet University will join Swarthmore College students in this jointly taught course. We will travel to Gallaudet University three times and students from Gallaudet University will travel to Swarthmore College three times over the semester.
1 credit.
Not offered 2014-2015.
LING 064. Structure of Tuvan
Tuvan belongs to the Turkic branch of the Altaic language family and is spoken in Siberia and Mongolia by nomadic herders. It has classically agglutinating morphology and curious phenomena such as vowel harmony, converbs, and switch reference. It has rich sound symbolism, a tradition of oral (unwritten) epic tales, riddles, and worldfamous song genres ("throat singing"). We will investigate the sounds, structures, oral traditions, and ethnography of Tuvan, using both printed and digital media.

## Linguistics

Prerequisites: LING 050 and 045 or 052 or permission of the instructor.
Eligible for ASIA and COGS credit.
1 credit.
Not offered 2014-2015.
LING 070R. Translation Workshop
(See LITR 070R and RUSS 070)
This course counts for distribution in humanities under the literature rubric and in social sciences under the linguistics rubric.
1 credit.
Fall 2014. Forrester.
LING 075. Field Methods
This course affords a close encounter with a language, direct from the mouths of native speakers. Students develop inference techniques for eliciting, understanding, analyzing, and presenting complex linguistic data. They also gain practical experience using state-of-the-art digital video, annotation, and archiving for scientific purposes. A different (typically non-IndoEuropean) language will be investigated each time the course is taught.
Prerequisite: LING 001.
1 credit.
Fall 2014. Gasser.
LING 090: Advanced Research Methods in Linguistics
This course covers the history, methodology, and notable debates in linguistics. Course readings include important primary works on topics throughout the history of linguistics, from early philology, to generative linguistics, to experimental and cognitive approaches. This course is intended for juniors and other advanced linguistics majors in preparation for conducting significant linguistics research, such as a senior thesis.
Prerequisites: any two of LING 001, 025, 040, 045 , and 050 , or permission of the instructor. 1 credit
Spring 2015. Sanders.

## LING 094. Research Project

With permission, students may elect to pursue a research program.
1 credit.
Fall or spring. Staff.
LING 095. Community-Service Credit: Literacy and Hard-of-Hearing or Deaf People
This course offers credit for community service work. Students may work with children on literacy skills in a mainstream environment or a bilingualbicultural program, locally or in the greater Philadelphia area. Students will be required to keep a daily or weekly journal of experiences and
to write a term paper (the essence of which would be determined by the student and the linguistics faculty mentor).
Prerequisites: LING 045; LING 006 or 062; permission of the chairs of both the linguistics and educational studies departments; and the agreement of a faculty member in linguistics to serve as a mentor through the project.
Eligible for CBL
0.5 or 1 credit.

Fall or spring. Staff.
LING 096. Community-Service Credit: Literacy
This course offers credit for community service work. The prerequisites are LING/EDUC 054, the permission of the chairs of both the linguistics and educational studies departments, and the agreement of a faculty member in linguistics to mentor students through the project. Students will be required to keep a daily or weekly journal of experiences and to write a term paper (the essence of which would be determined by the student and the linguistics faculty mentor).
1 credit.
Fall or spring. Staff.

## LING 097. Field Research

This course offers credit for field research on a language. Prerequisites are the permission of the chair of linguistics and the agreement of a faculty member in linguistics to serve as a mentor through the project.
1 credit.
Fall or spring. Staff
LING 100. Research Seminar
All course majors in linguistics and linguistics/language must write their senior thesis in this seminar. Only seniors are admitted.
1 or 2 credits.
Fall 2014. Fernald, Harrison.
LING 195. Senior Honors Thesis
All honors majors in linguistics and honors minors who are also course majors must write their thesis in this seminar.
2 credits.
Fall 2014. Fernald, Harrison.
LING 199. Senior Honors Study
Honors majors may write their two research papers for 1 credit in this course. Honors minors may take this course for 0.5 credit.
Fall 2014 or spring 2015. Fernald.

## Seminars

LING 105. Seminar in Phonology: Contact and Change
This seminar studies language contact and its results; the relation between internal and external

## Linguistics

linguistic change; dialects and koine formation; and pidgins and creoles.
Eligible for COGS credit.
Prerequisite: LING 001, 045, or 050, or permission of the instructor.
1 or 2 credits.
Not offered 2014-2015.

## LING 106. Seminar in Morphology

This seminar will consider recent developments in the theory of morphology. Topics vary.
Eligible for COGS credit.
Prerequisite: LING 043.
1 or 2 credits.
Not offered 2014-2015.
LING 107. Seminar in Syntax
This seminar will consider recent developments in the theory of syntax. Topics vary
Eligible for COGS credit.
Prerequisite: LING 040 or 050
1 or 2 credits.
Not offered 2014-2015.
LING 108. Seminar in Semantics
This seminar will consider recent developments in the theory of semantics. Topics vary.
Eligible for COGS credit.
Prerequisite: LING 040
1 or 2 credits.
Not offered 2014-2015.

## LING 115. Linguistic Typology and

## Constructed Languages

Humans have long been driven to duplicate and manipulate the properties of natural language to create new languages for the purposes of enhancing works of fiction, for aiding human communication, or even for pure intellectual curiosity. In this course, students will explore this drive through development of their own constructed languages, guided by rigorous study of the typology of patterns observed in real human languages. Topics to be covered include phoneme inventories, phonological rules, morphological classification, syntactic structure, language change over time, dialectal variation, and writing systems. Students will also apply their knowledge of
linguistic typology to critically assess the design of existing constructed languages such as Esperanto and Klingon.
Prerequisite: LING 001 or 045 or permission of instructor.

1 credit.
Spring 2015. Sanders

## LING 116. Language and Meaning

(See PHIL 116)
This seminar counts for distribution in HU under the philosophy rubric and in SS under the LING rubric.
2 credits.
Not offered 2014-2015.

## LING 120. Anthropological Linguistics:

## Endangered Languages

(Cross-listed as ANTH 080B)
In this seminar, we address some traditional issues of concern to both linguistics and anthropology, framed in the context of the ongoing, precipitous decline in human linguistic diversity. With the disappearance of languages, cultural knowledge (including entire technologies such as ethnopharmacology) is often lost, leading to a decrease in humans' ability to manage the natural environment. Language endangerment thus proves relevant to questions of the language/ecology interface, ethnoecology, and cultural survival. The seminar also addresses the ethics of fieldwork and dissemination of traditional knowledge in the Internet age
Eligible for ENVS credit.
Prerequisite: One course in linguistics or anthropology or permission of the instructor. 1 credit.
Fall 2014. Harrison
LING 134. Psycholinguistics Seminar (See PSYC 134)
1 credit.
Not offered 2014-2015
LING 139. Developmental Psychology
(See PSYC 139)
1 credit.
Fall 2014. Christie.

Mathematics and Statistics

DEBORAH J. BERGSTRAND, Professor (part time)
PHILIP J. EVERSON, Professor and Chair
CHARLES M. GRINSTEAD, Professor
AIMEE S.A. JOHNSON, Professor ${ }^{2}$
STEPHEN B. MAURER, Professor (part time)
DON H. SHIMAMOTO, Professor
JANET C. TALVACCHIA, Professor
LINDA CHEN, Associate Professor
CHERYL P. GROOD, Associate Professor
THOMAS J. HUNTER, Associate Professor ${ }^{3}$
STEVE C. WANG, Associate Professor ${ }^{1}$
RALPH R. GOMEZ, Assistant Professor ${ }^{3}$
NSOKI MAVINGA, Assistant Professor
LYNNE STEUERLE SCHOFIELD, Assistant Professor
MICHAEL BIRO, Visiting Assistant Professor
SCOTT COOK, Visiting Assistant Professor
RACHEL EPSTEIN, Visiting Assistant Professor
KELLY MCCONVILLE, Visiting Assistant Professor
KAITLYN E. LITWINETZ, Academic Support Coordinator
STEPHANIE J. SPECHT, Administrative Assistant
${ }^{1}$ Absent on leave, fall 2014.
${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

## Overview of Curriculum

Mathematics and statistics are among the great achievements of human intellect and at the same time powerful tools. As Galileo said, the book of the universe "is written in the language of mathematics." The goal of the department is to enable students to appreciate these achievements and use their power. To that end, majors and minors in the department receive a firm foundation in pure mathematics and the opportunity to apply it-to statistics, physical science, biological science, computer science, social science, operations research, education, and finance-the list grows.
Students typically enter our department with strong skills, but there is always room for improvement and new knowledge. Majors and minors grow in:

- Reasoning skills: logical argument and abstraction;
- Formulation skills: developing mathematical models;
- Communication skills: expressing mathematical ideas and information clearly and precisely on paper, orally, and electronically;
- Comprehension skills: absorbing mathematical ideas and information presented on paper, orally, and electronically;
- Computation skills: mental, by hand, and by machine, as appropriate.
Through core courses, students learn fundamental concepts, results, and methods. Through elective courses, they pursue special interests. In the
process, students develop a further appreciation for the scope and beauty of our discipline.
Graduates of the department follow many careers paths, leading them to graduate school, in mathematics, statistics, or other fields, to professional schools, or to the workplace.


## Introductory Courses

Most first-year students entering Swarthmore have had calculus while in high school and place out of at least one semester of Swarthmore's calculus courses, whether they continue with calculus or decide, as is often best, to try other sorts of mathematics. See the discussion of placement later. However, some entering students have not had the opportunity to take calculus or need to begin again. Therefore, Swarthmore offers a beginning calculus course (MATH 015) and several courses that do not require calculus or other sophisticated mathematics experiences. These courses are STAT 001 (Statistical Thinking, both semesters), MATH 003 (Introduction to Mathematical Thinking, spring semester), and STAT 011 (Statistical Methods, both semesters). MATH 003 is a writing course. MATH 029 (Discrete Mathematics, both semesters) also does not require any calculus but is a more sophisticated course; thus, some calculus is a useful background for it in an indirect way. Once one has had or placed out of two semesters of calculus, many other courses are available, especially in linear algebra and several-variable calculus.

## Placement and Credit on Entrance to Swarthmore

## Placement Procedure

To gain entrance to mathematics or statistics courses at any time during one's Swarthmore years, students are expected to take at least one of the following exams: the Advanced Placement (AP) or International Baccalaureate (IB) exams, Swarthmore's Calculus Placement Exam, or Swarthmore's Math/Stat Readiness Exam. Students who do take AP or IB exams may be required to take the departmental exams as well, or parts thereof. In particular, students intending to take either MATH 15 or MATH 28 must take Swarthmore's Calculus Placement Exam. Versions of the Calculus Placement Exam and the Readiness Exam are sent to entering first-year students over the summer, along with detailed information about the rules for placement and credit.

## Advanced Placement/International Baccalaureate Credit

Placement and credit mean different things. Placement allows students to skip material they have learned well already by starting at Swarthmore in more advanced courses. Credit confers placement as well but also is recorded on the student's Swarthmore transcript and counts toward the 32 credits needed for graduation.
The Swarthmore Calculus Placement Exam is used for placement only, not credit. Credit is awarded on the basis of the AP and the IB exams, as follows:

- 1 credit (for STAT 011) for a score of 4 or 5 on the Statistics AP Test of the College Board.
- 1 credit (for MATH 015) for a score of 4 on the AB or BC Calculus AP Test of the College Board (or for an AB subscore of 4 on the BC Test) or for a score of 5 on the Higher Level Mathematics Test of the IB.
- 1.5 credits (for MATH 015 and the first half of MATH 025) for a score of 5 on the AB Calculus AP Test (or for an AB subscore of 5 on the BC Test) or a score of 6 or 7 on the higher-level IB. Students who receive this credit and want to continue calculus take MATH 026.
- 2 credits (for MATH 015 and 025) for a main score of 5 on the BC Calculus AP Test
Alternatively, any entering student who places out of MATH 015 or 025 may receive credit for those courses by passing the final exams in these courses with a grade of straight C or better. These exams must normally be taken during the student's first semester at Swarthmore, at the time when the final exam is given for the course. Students who wish to take these exams must arrange to do so with the departmental placement coordinator and should do so during their first semester at Swarthmore.

Students who are eligible on entrance for credit for a course, but who take the course anyway, will lose the entrance credit.

First-year students seeking advanced placement and/or credit for calculus taken at another college or university must normally validate their work by taking the appropriate external or Swarthmore placement examination, as described earlier. The department does not grant credit directly for college courses taken while a student is in high school. For work beyond calculus completed before entering Swarthmore, students should consult the departmental placement coordinator to determine the Swarthmore courses into which they may be placed and additional materials they may need to present for this placement. The department will not normally award credit for work above the first-year calculus level completed before entering Swarthmore.

## The Academic Program

Major and Minor Application Process Students apply for a major in the middle of the second semester of the sophomore year. Students should consult the department webpage during the College's Sophomore Plan process for more details on how to apply for the major. After the Sophomore Plan process is over, students may apply to add or change a major or minor at any time, but applications will normally be held until the next time that sophomore applications are considered (around March 1).

## Course Major

## Acceptance into the Major

The normal preparation for a major in mathematics is to have obtained credit for, or placement out of, at least four of the following five course groups by the end of the sophomore year: Calculus I (MATH 015), Calculus II (MATH 025 or 026), Discrete Mathematics (MATH 029), Linear Algebra (MATH 027 or any flavor of 028), and Several Variable Calculus (MATH 033, 034, or 035). In any event, all majors must complete the Linear Algebra and Several Variable Calculus requirement by the end of the first semester of the junior year.
To be accepted as a major or a minor, a candidate normally should have a grade point average of at least C+ in courses taken in the department to date, including courses in the fall term of the first year, for which we have shadow grades. A candidate should have at least one grade at the B level. Students should be aware that upper-level courses in mathematics are typically more demanding and more theoretical than the first- and second-year courses. This is an important factor in considering borderline cases. In some cases, applicants may be deferred pending successful work in courses to be designated by the department.

## Basic Requirements

By graduation, a mathematics major must have at least 10 credits in mathematics and statistics courses. At least 5 of the credits counted in the 10 must be for courses numbered over 040. (Courses numbered under 10 do not count toward the major in any event.) Furthermore, every major is required to obtain credit for, or place out of, each of the following course groups: MATH 015; MATH 025 , or 026 ; MATH 027,028 , or 028 ; MATH 033, 034, or 035; MATH 063; and MATH 067. The two upper-level core courses, MATH 063 (Introduction to Real Analysis) and MATH 067 (Introduction to Modern Algebra), will be offered at least every fall semester. At least one of these two should be taken no later than the fall semester of the junior year. Majors are expected to complete both MATH 063 and 067 before the spring semester of the senior year; permission to delay taking either course until the senior spring must be requested in writing as early as possible but in any event no later than the beginning of the fall semester of the senior year. Finally, course majors must satisfy the departmental
comprehensive requirement by passing MATH
097, Senior Conference. Normally, at least 3 of the 5 credits for courses numbered over 040 must be taken at Swarthmore, including MATH 097 and at least one of the core courses MATH 063 and 067. Note that MATH 097 is given in the fall only.
Note that placement counts for satisfying the requirements but not for the 10 -credit rule. Those students who are placed out of courses without credit must take other courses to obtain 10 credits. If you believe you are eligible for credit for courses taken before Swarthmore (because of AP or IB scores) but these credits are not showing on your transcript, please see the registrar.
The two required core courses, Introduction to Real Analysis (MATH 063) and Introduction to Modern Algebra (MATH 067), are offered every fall semester, and we try to create enough sections to keep them relatively small and seminar-like. We hope, but cannot promise, to offer one or the other of 063 and 067 each spring as well.
Mathematics majors are encouraged to study in some depth an additional discipline that makes use of mathematics. We also recommend that they acquire some facility with computers. Students bound for graduate work should obtain a reading knowledge of French, German, or Russian.

## Special Emphases

The preceding requirements allow room to choose an optional special emphasis within the mathematics major. For instance:
A student may major in mathematics with an emphasis on statistics by taking the following courses at the advanced level: (1) the core analysis course (MATH 063); (2) Mathematical Statistics I (STAT 061); (3) Probability (MATH 105) or Mathematical Statistics II (STAT 111); (4) Data

Analysis and Visualization (STAT 031); (5) the Senior Conference (MATH 097); and (6) another mathematics course numbered over 040. Students are encouraged but not required to select the core algebra course (MATH 067) if they choose this emphasis. When a student does an emphasis in statistics, STAT 031 counts as if it were numbered over 040.
Students interested in mathematics and computer science should consider a mathematics major with a minor in computer science or an Honors
Program with a mathematics major and a computer science minor. Details on these options are in the catalog under computer science.
Students thinking of graduate work in social or management science, or a master's in business administration, should consider the following options.
Basic courses: single-variable calculus (two semesters), one or more practical statistics courses (STAT 061 and 031), linear algebra, discrete math, several-variable calculus, and introductory computer science; advanced courses: (1) Modeling (MATH 056); (2) at least one of Probability (MATH 105), Mathematical Statistics I (STAT 061), and possibly Mathematical Statistics II (STAT 111); (3) at least one of Combinatorics (MATH 069) or Operations Research (ENGR 057); (4) the three required core courses (MATH 063, MATH 067 and MATH 097); and (5) Differential Equations (MATH 043 or 044). Because this program is heavy (one who hopes to use mathematics in another field must have a good grasp both of the relevant mathematics and of the intended applications), one of the core course requirements may be waived with permission of the department.
Students thinking of graduate work in operations research should consider the following options. Basic courses: same as previous paragraph. Advanced courses: (1) the three required core courses (MATH 063, MATH 067 and MATH 097); (2) Combinatorics (MATH 069) and Topics in Discrete Mathematics (MATH 059 or 079); (3) Mathematical Statistics (STAT 061); and (4) at least one of Number Theory (MATH 058), Modeling (MATH 056), or Probability (MATH 105).

Students interested in quantitative economics, mathematical finance, or similar fields should consider a double major in mathematics and economics, or a major in mathematics with a minor in economics. Students thinking of graduate work in quantitative economics or mathematical finance should consider a math major with a program including at least MATH 43, MATH 54, MATH 63 and STAT 61 together with appropriate additional coursework to round out a mathematics major or a mathematics major with emphasis in statistics.

## Course Minor

## Acceptance into the minors

The requirements for acceptance into either course minor, such as prerequisite courses and grade average, are the same as for acceptance into the major. Students may not minor in both mathematics and statistics.

## Basic requirements to complete the

 mathematics course minor (for Class of
## '15 and later)

By graduation, a mathematics course minor must have 6 credits in mathematics or statistics, at least 3 of which must be for courses numbered 045 or higher. Also, at least 1 of these 3 credits must be for MATH 063 or 067 . Also, at least 2 of these 3 credits must be taken at Swarthmore.

Basic requirements of the statistics course minor
By graduation, a statistics course minor must have 6 credits in mathematics or statistics. Every statistics course minor must obtain credit for, or place out of, CPSC 21, STAT 031, and STAT 061. At least one of STAT 031 and STAT 061 must be taken at Swarthmore. Students are advised to take CPSC 21 as early as possible, as it can be difficult to add the course in junior and senior years.

## Honors Major

All current sophomores who wish to apply for Honors should indicate this in their Sophomore Plan, should work out a tentative Honors Program with their departmental adviser, and should submit the College's Honors Program Application along with their Sophomore Plan. (All Sophomore Plan forms and Honors forms are available from the registrar or the registrar's website.) Honors applications are also accepted at the end of the sophomore year or during the junior year. Students, in consultation with their advisers, often change their Honors Programs anyway as time goes on.

## Basic requirements

To be accepted as an Honors major in mathematics, a student should have a grade point average in mathematics and statistics courses to date of at least B+.
An Honors math major program consists of three preparations of two credits each, for a total of six distinct credits. One preparation must be in algebra and one in analysis (real or complex). The student must also satisfy all requirements of the mathematics major with the exception of the comprehensive requirement (MATH 097, Senior Conference).

## Preparations

The department offers preparations in the fields
listed below. Each preparation is subject to
External Examination, including a 3-hour written
examination and a 45-minute oral examination. Each preparation consists of a specified pair of credits. The specified credits are listed after each field.
Algebra (067 and 102)
Real Analysis (063 and 101)
Complex Analysis (063 and 103)
Discrete Mathematics (069 and either 059 or 079)

Geometry (either 055 or 075 , and 106)
Probability (061 and 105)
Statistics (061 and 111)
Topology (104, a 2-credit seminar)
Since no course is allowed to count in two honors preparations, it is not possible for a student to offer both Real Analysis and Complex Analysis as fields. Similarly, one may take only one of Probability and Statistics as fields.
The external examination component of the program is meant to prompt students to learn their core subjects really well and to show the examiners that they have done so-that is, show that they deserve Honors. However, no three fields cover everything a strong student would ideally learn as an undergraduate. Honors majors should consider including in their studies a number of advanced courses and seminars beyond what they present for Honors.

## Senior Honors Study/Portfolio

None is required or offered.

## Honors Minor

For the honors portion of their program, minors must complete one preparation chosen from those in the previous section.

## Transfer Credit

Courses taken elsewhere may count for the major. However, the number of upper-level transfer credits for the major is limited. Normally, at least 3 of the 5 upper-level courses used to fulfill the major must be taken at Swarthmore, including at least one of the core courses MATH 063 and MATH 067. Exceptions should be proposed and approved during the Sophomore Plan process, not after the fact. Also, the usual College rules for transfer credit apply: students must see the professor in charge of transfer twice: in advance to obtain authorization, and afterwards to get final approval and a determination of credit. In particular, for MATH 063 and 067, students are responsible for the syllabus we use. If a course taken elsewhere turns out not to cover it all, the student will not get full credit (even though the transfer course was authorized beforehand) and the student will not complete the major until he or she has demonstrated knowledge of the missing topics.

Similarly, for honors preparations students are responsible for the syllabi we use; we will not offer special honors exams based on work done at other institutions.

## Off-Campus Study

Students planning to study abroad should obtain information well in advance about the courses available at the institution they plan to attend and check with the department about selecting appropriate courses. It may be difficult to find courses abroad equivalent to our core upper-level courses, or to our honors preparations, since curricula in other countries are often organized differently.

## Teacher Certification

Swarthmore offers teacher certification in mathematics through a program approved by the state of Pennsylvania and administered by the College's Educational Studies Department. For further information about the relevant set of requirements, please refer to the Educational Studies section of the Bulletin. One can obtain certification either through a mathematics major or through a Special Major in Mathematics and Education, in either case if taken with appropriate electives.

## Courses

Note 1: For courses numbered under 100, the ones digit indicates the subject matter, and the other digit indicates the level. In most cases, a ones digit of 1 or 2 means statistics, 3 to 6 means continuous mathematics, and 7 to 9 means noncontinuous mathematics (algebra, number theory, and discrete math). Courses below 10 do not count for the major, from 10 to 39 are first- and second-year courses, from 40 to 59 are intermediate, in the 60 s are core upper-level courses; from 70 to 89 are courses that have one or more core courses as prerequisites, and in the 90 s are independent reading courses.
Note 2: There are several sets of courses below where a student may not take more than one of them for credit. For instance, see the descriptions of MATH 033, 034 and 035 . In such cases, if a student does take more than one of them, each group is treated for the purpose of college regulations as if they have the same course number. See the Repeated Course Rule in section 8.2.4

## STAT 001. Statistical Thinking

Statistics provides methods for collecting and analyzing data and generalizing from their results. Statistics is used in a wide variety of fields, and this course provides an understanding of the role of statistics in these fields and in everyday life. It is intended for students who want an appreciation of statistics, including the ability to interpret and
evaluate statistical claims critically but who do not imagine they will ever need to carry out statistical analyses themselves. (Those who may need to carry out statistical analyses should take STAT 011.) This course cannot be counted toward a major in mathematics, is not a prerequisite for any other course, and cannot be taken for credit after or simultaneously with any other statistics course, including AP Statistics and ECON 031.
Prerequisite: Four years of traditional high school mathematics (precalculus).
1 credit.
Each semester.
Fall 2014. Everson. Spring 2015. Schofield.

## MATH 003. Introduction to Mathematical

 ThinkingStudents will explore the world of mathematical ideas by sampling logic, number theory, geometry, infinity, topology, probability, and fractals, while we emphasize the thinking and problem-solving skills these ideas stimulate. Class meetings will involve presentation of new material; group work on problems and puzzles; and lively, maybe even passionate discussions about mathematics. This course is intended for students with little background in mathematics or those who may have struggled with math in the past. It is not open to students who already have received credit on their Swarthmore transcripts for mathematics, Advanced Placement credit included, or who concurrently are taking another mathematics course, or who have placed out of any Swarthmore mathematics course. (See "Placement Procedure" earlier.) Students planning to go on to calculus should consult with the instructor. This course does not count toward a major in mathematics. Writing course.
1 credit.
Spring 2015. Grood.
MATH 007. Elementary Topics in Mathematics in Applied Contexts
This course is offered occasionally and is interdisciplinary in nature. It provides an introduction to some area of mathematics in the context of its use in another discipline. In fall 2010 this was a course in biomathematics.
1 credit.
Not offered 2014-2015.

## STAT 011. Statistical Methods

STAT 011 prepares students to carry out basic statistical analyses with the aid of computer software. Topics include basic summary statistics and graphics, design of surveys and experiments, one and two-sample $t$-tests and tests of proportions, chi-square tests, and an introduction to linear regression and analysis of variance. The course is intended for students who want a practical introduction to statistical methods and
who intend to do, or think they may eventually do, statistical analysis, especially in the biological and social sciences. Students who receive credit on entrance for the Statistics AP Exam should not take this course; they have placed out of it and will lose their AP credit if they take it. Note that STAT 011 overlaps considerably with ECON 031; both courses cover similar topics, although ECON 031 focuses more on economic applications while STAT 011 draws examples from a variety of disciplines.
Prerequisite: Four years of traditional high school mathematics (precalculus).
1 credit.
Eligible for COGS credit.
Each semester.
Fall 2014. Cook, McConville. Spring 2015. McConville, Schofield.

## MATH 015. Elementary Single-Variable

 CalculusA first-semester calculus course with emphasis on an intuitive understanding of the concepts, methods, and applications. Graphical and symbolic methods will be used. The course will mostly cover differential calculus, with an introduction to integral calculus at the end.
Prerequisite: Four years of traditional high school mathematics (precalculus) and placement into this course through Swarthmore's Math/Stat Readiness Examination. Students with prior calculus experience must also take Swarthmore's Calculus Placement Examination (see "Placement Procedure" section earlier).
1 credit.
Fall 2014. Grood, Mavinga.

## MATH 015SP. Calculus STEM Scholars

 ProgramMATH 015SP will provide an enriched experience designed to support MATH 015 students who plan to take at least four other STEM courses during their time at Swarthmore. During class, students work in small groups on challenging problems designed to promote deep understanding and mastery of the material.
Prerequisite: Students must apply for admission to this attachment. Admission will be determined by a commitment to both hard work and excellence, rather than by high school GPA, math SAT scores, or past performance in math classes.
0.5 credit.

Graded credit/no credit.
Fall 2014. Grood.
STAT 021. Elementary Topics in Statistics: Quantitative Paleontology
This course will explore current areas of research in paleobiology and macroevolution. For instance, does evolutionary change generally occur gradually or in short bursts? How reliably does the
fossil record preserve information about ecosystems? What factors make species more likely to go extinct? To answer these and other questions, paleobiologists use a range of statistical and mathematical techniques. We will emphasize conceptual understanding and applications of such quantitative methods, rather than their underlying theory or proofs. Class meetings will include a combination of lectures, discussion of journal articles, and conversations with leading paleontologists via Skype.
Prerequisite: BIOL 002, or STAT 011 or equivalent.
1 credit.
Not offered 2014-2015.
MATH 024. Numerical MethodsEngineering Applications (See ENGR 019)
1 credit.
Not offered 2014-2015.

## MATH 025. Further Topics in Single-

## Variable Calculus

The continuation of MATH 015, this course covers the fundamental theorem, integration, geometric series, Taylor polynomials and series, and an introduction to differential equations.
Prerequisites: MATH 015 or placement by examination (see "Advanced Placement and Credit Policy" section).
1 credit.
Each semester.
Fall 2014. Epstein. Spring 2015. Biro.
MATH 026. Advanced Topics in SingleVariable Calculus
For students who place out of the first half of MATH 025. This course goes into more depth on sequences, series, and differential equations than does MATH 025 and includes power series and convergence tests. This course, or MATH 025, is required of all students majoring in mathematics, physics, chemistry, or engineering. Students may not take MATH 026 for credit after MATH 025 without special permission.
Prerequisite: Placement by examination (see "Advanced Placement and Credit Policy" section). 1 credit.
Fall 2014. Biro, Maurer.

## MATH 027. Linear Algebra

This course covers systems of linear equations, matrices, vector spaces, linear transformations, determinants, and eigenvalues. Applications to other disciplines are presented. This course is a step up from calculus: It includes more abstract reasoning and structures. Formal proofs are discussed in class and are part of the homework. Students may take only one of MATH 027, MATH 028, and MATH 028 S for credit.

Prerequisite: A grade of C or better in some math course numbered 025 or higher or placement by examination (see "Advanced Placement and Credit Policy" section).
1 credit.
Each semester.
Fall 2014. Biro. Spring 2015. Bergstrand, Chen.
MATH 028. Linear Algebra Honors Course
More theoretical, abstract, and rigorous than MATH 027. The subject matter will be equally as valuable in applied situations, but applications will be emphasized less. MATH 028 is intended for students with exceptionally strong mathematical skills, especially if they are thinking of a mathematics major. Students may take only one of MATH 027, MATH 028, and MATH 028S for credit.

Prerequisite: A grade of B or better in some math course numbered 025 or higher, or placement by examination, including both placement out of calculus and placement into this course via Part IV of Swarthmore's Calculus Placement Exam (see "Placement Procedure" section).
1 credit.
Fall 2014. Johnson. Spring 2015. Cook.
MATH 028S. First-Year Seminar: Linear Algebra Honors Seminar
MATH 028S covers the same material as the lecture-based MATH 028 but uses a seminar format (maximum 12 students) with additional meetings. Hands-on student participation takes the place of most lectures. Students may take only one of MATH 027, MATH 028, and MATH 028S for credit.
Prerequisite: Placement by examination, including both placement out of calculus and placement into this course via Part IV of Swarthmore's Calculus Placement Exam (see "Placement Procedure" section).
1 credit.
Fall 2014. Maurer.

## MATH 029. Discrete Mathematics

An introduction to noncontinuous mathematics. The key theme is how induction, iteration, and recursion can help one discover, compute, and prove solutions to various problems-often problems of interest in computer science, social science, or management. Topics will include mathematical induction and other methods of proof, recurrence relations, counting, and graph theory. Additional topics may include algorithms, and probability. There is a strong emphasis on good mathematical writing, especially proofs. While it does not use any calculus, MATH 029 is a more sophisticated course than MATH 15 or MATH 25; thus success in a calculus course demonstrates the mathematical maturity needed for MATH 29.

Prerequisite: Strong knowledge of at least precalculus, as evidenced by taking another mathematics course numbered 15 or above, or through our placement examinations (see
"Placement Procedure" section). Familiarity with some computer language is helpful but not necessary.
Writing course.
Eligible for COGS credit.
1 credit.
Fall 2014. Shimamoto. Spring 2015. Epstein.
STAT 031. Data Analysis and Visualization This course will study methods for exploring and modeling relationships in data. We introduce modern techniques for visualizing trends and formulating hypotheses. We will also discuss methods for modeling structure and patterns in data, particularly using multiple regression and related methods. The format of the course emphasizes writing assignments and interactive problem solving using real datasets.
Statistics Prerequisites: Credit for AP Statistics, STAT 011, STAT 061, or ECON 031; or STAT 001 and permission of the instructor.
Writing course.
Eligible for COGS credit.
1 credit.
Fall 2014. McConville. Spring 2015. Wang.

## MATH 033. Basic Several-Variable

 CalculusThis course considers differentiation and integration of functions of several variables with special emphasis on two and three dimensions. Topics include partial differentiation, extreme value problems, Lagrange multipliers, multiple integrals, line and surface integrals, Green's, Stokes', and Gauss' theorems. The department strongly recommends that students take MATH 034 instead, which is offered every semester and provides a richer understanding of this material by requiring linear algebra (MATH 027 or 028) as a prerequisite. Students may take only one of MATH 033, MATH 034, and MATH 035 for credit.
Prerequisite: MATH 025, or 026 or placement by examination (see "Advanced Placement and Credit Policy" section). Students who have taken linear algebra at Swarthmore or elsewhere may not take MATH 033 without the instructor's permission. 1 credit.
Fall 2014. Johnson.
MATH 034. Several-Variable Calculus Same topics as MATH 033 except in more depth using the concepts of linear algebra. The department strongly recommends that students take linear algebra first so that they are eligible for this course. Students may take only one of MATH 033, MATH 034, and MATH 035 for credit.

Prerequisite: MATH 025, or 026; and MATH 027, 028, or 028S.
Eligible for COGS credit.
1 credit.
Each semester.
Fall 2014. Scott. Spring 2015. Cook.
MATH 035. Several-Variable Calculus Honors Course
This version of MATH 034 will be more theoretical, abstract, and rigorous than its standard counterpart. The subject matter will be equally as valuable in applied situations, but applications will be emphasized less. It is intended for students with exceptionally strong mathematical skills and primarily for those who have completed MATH 028 or 028S successfully. Students may take only one of MATH 033, MATH 034, and MATH 035 for credit.
Prerequisite: A grade of C or better in MATH 028 or 028S, or permission of the instructor, or in the fall for entering students who have placed out of linear algebra, permission of the departmental placement coordinator.
1 credit.
Fall 2014. Grinstead. Spring 2015. Grinstead.
STAT 032. Topics in Statistics: Data Analysis Projects in Public and Social Policy
This course is offered occasionally, when it was last offered in spring 2011 it was a Community-
Based Learning project course in data analysis.
Students worked in teams on a semester-long data analysis problem. Projects were drawn from data from local organizations in order to attempt to answer questions of direct importance to them. A key objective of the course is to expose students to the variety of challenges faced by the data analyst. Topics may include multiple regression, analysis of variance, analysis of covariance, and other related methods. Students research the scientific background of their problem and consult with the local organizations from which their data came.
Prerequisite: STAT 011, or permission of the instructor
1 credit.
Not offered 2014-2015.
MATH 043. Basic Differential Equations
This course emphasizes the standard techniques used to solve differential equations. It will cover the basic theory of the field with an eye toward practical applications. Standard topics include first-order equations, linear differential equations, series solutions, first-order systems of equations, Laplace transforms, approximation methods, and some partial differential equations. Compare with MATH 044. Students may not take both MATH 043 and 044 for credit. The department prefers majors to take MATH 044.

Prerequisites: Several-variable calculus or permission of the instructor
1 credit.
Spring 2015. Shimamoto.

## MATH 044. Differential Equations

An introduction to differential equations that has a more theoretical flavor than MATH 043 and is intended for students who enjoy delving into the mathematics behind the techniques. Problems are considered from analytical, qualitative, and numerical viewpoints, with an emphasis on the formulation of differential equations and the interpretations of their solutions. This course does not place as strong an emphasis on solution techniques as MATH 043 and thus may not be as useful to the more applied student. Students may not take both MATH 043 and 044 for credit. The department prefers majors to take MATH 044.
Prerequisites: Linear algebra and several-variable calculus or permission of the instructor.
Eligible for COGS credit.
1 credit.
Spring 2015. Mavinga.
MATH 046. Theory of Computation (See CPSC 046)
Eligible for COGS credit.
1 credit.
Spring 2015. Staff.
MATH 053. Topics in Analysis
Course content varies from year to year depending on student and faculty interest. Recent topics have included financial mathematics, dynamical systems, and Fourier analysis. Prerequisites: Linear algebra and several-variable calculus. 1 credit.
Alternate years.
Spring 2015. Cook.

## MATH 054. Partial Differential Equations

The first part of the course consists of an introduction to linear partial differential equations of elliptic, parabolic, and hyperbolic type via the Laplace equation, the heat equation, and the wave equation. The second part of the course is an introduction to the calculus of variations. Additional topics depend on the interests of the students and instructor.
Prerequisites: Linear algebra, several-variable calculus, and either MATH 043, MATH 044, PHYS 050, or permission of the instructor. 1 credit.
Alternate years.
Not offered 2014-2015.

## MATH 055. Topics in Geometry

Course content varies from year to year. In recent years, the emphasis has been on introductory differential geometry. See also MATH 075.
Prerequisites: Linear algebra and several-variable calculus or permission of the instructor.
1 credit.
Alternate years.
Fall 2014. Talvacchia.

## MATH 056. Modeling

An introduction to the methods and attitudes of mathematical modeling. Course content varies from year to year depending on student and faculty interest. Because modeling in physical science and engineering is already taught in courses in those disciplines, applications in this course will be primarily to social and biological sciences.
Various standard methods used in modeling will be introduced. These may include differential equations, Markov chains, game theory, graph theory, and computer simulation. The course will balance theory with how to apply these subjects to specific modeling problems coming from a variety of disciplines. The format of the course will include projects as well as lectures and problem sets with the hope that those enrolling will have the opportunity to apply what they have learned to appropriate problems within their own area of interest.
Prerequisites: Linear algebra and several-variable calculus or permission of the instructor.
1 credit.
Alternate years.
Not offered 2014-2015.
MATH 057. Topics in Algebra
Course content varies each year, depending on student and faculty interest. Recent offerings have included coding theory, groups and representations, finite reflection groups, and matrix theory. See also MATH 077.
Prerequisites: Linear algebra.
Eligible for COGS credit.
1 credit.
Alternate years.
Not offered 2014-2015.
MATH 058. Number Theory
The theory of primes, divisibility concepts, and multiplicative number theory will be developed.
Prerequisites: Linear algebra and several-variable calculus or permission of the instructor.
1 credit.
Alternate years.
Fall 2014. Grinstead.

MATH 059. Topics in Discrete Mathematics
Topics vary each year. Past topics have included
combinatorial matrix theory, graph theory,
combinatorial algorithms, number theoretic
algorithms, and representation theory using
combinatorial structures and techniques. See also MATH 079.
Prerequisites: MATH 029 and at least one highernumbered mathematics course.
1 credit.
Alternate years.
Not offered 2014-2015.

## STAT 061. Probability and Mathematical

## Statistics I

This course introduces the mathematical theory of probability, including density functions and distribution functions, joint and marginal distributions, conditional probability, and expected value and variance. It then develops the theory of statistics, including parameter estimation and hypothesis testing. The emphasis is on proving results in mathematical statistics rather than on applying statistical methods.
Students needing to learn applied statistics and data analysis should consider STAT 011 or 031 in addition to or instead of this course.
Prerequisites: MATH 033 or 034 or permission of the instructor. STAT 011 or the equivalent is strongly recommended.
1 credit.
Fall 2014. Schofield.
MATH 063. Introduction to Real Analysis This course concentrates on the careful study of the principles underlying the calculus of real valued functions of real variables. Topics include continuity, compactness, connectedness, uniform convergence, differentiation, and integration. Required additional meetings.
Prerequisites: Linear algebra and several-variable calculus or permission of the instructor.
Writing course.
Eligible for COGS credit.
1 credit.
Fall 2014. Shimamoto.
MATH 067. Introduction to Modern Algebra
This course is an introduction to abstract algebra and will survey basic algebraic systems-groups, rings, and fields. Although these concepts will be illustrated by concrete examples, the emphasis will be on abstract theorems, proofs, and rigorous mathematical reasoning. Required additional meetings.
Prerequisite: Linear algebra or permission of the instructor.
Writing course.

1 credit.
Fall 2014. Bergstrand. Spring 2015, Bergstrand.
MATH 069. Combinatorics
This course continues the study of material begun in MATH 029. The primary topics are enumeration and graph theory. The first area includes, among other things, a study of generating functions and Polya counting. The second area is concerned with relations between certain graphical invariants. Additional topics may include one or more of the following topics: design theory, extremal graph theory, Ramsey theory, matroids, matchings, codes, and Latin squares.
Prerequisites: Grades of C or better in MATH 029 and at least one other course in mathematics numbered 27 or higher, or permission of the instructor.
1 credit.
Alternate years.
Fall 2014. Chen.
MATH 073. Advanced Topics in Analysis
An advanced version of MATH 053, sometimes offered instead, and requiring the core course in analysis.
Prerequisites: Linear algebra and MATH 063. 1 credit.
Not offered 2014-2015.
MATH 075. Advanced Topics in Geometry An advanced version of MATH 055, sometimes given instead, and typically requiring MATH 063, 067, or both. The topic for 2013-2014 is computational geometry and topology. This version of the course may not be used as part of the Honors preparation in Geometry.
Prerequisites: At least one of MATH 055, MATH
063, MATH 067, or MATH 069. MATH 063 recommended especially.
1 credit.
Not offered 2014-2015.
MATH 077. Advanced Topics in Algebra An advanced version of MATH 057, sometimes given instead, and requiring the core course in algebra. (In 2013-2014 MATH 057 will be offered instead.)
Prerequisites: Linear algebra and MATH 067.
1 credit.
Not offered 2014-2015.

## MATH 079. Advanced Topics in Discrete

 MathematicsAn advanced version of MATH 059, sometimes offered instead of MATH 059.
Prerequisites: MATH 029 and 069.
1 credit.
Not offered 2014-2015.

## MATH 093/STAT 093. Directed Reading

## MATH 096/STAT 096. Thesis

MATH 097. Senior Conference
This course is required of all senior mathematics majors in the Course Program and must be taken at Swarthmore. It provides an opportunity to delve more deeply into a particular topic agreed on by the student and the instructor. This focus is accomplished through a written paper and either an oral presentation or participation in a poster session.
0.5 credit.

Fall 2014. Chen.

## Seminars

MATH 101. Real Analysis II
This seminar is a continuation of Introduction to Real Analysis (MATH 063). Topics may include the inverse and implicit function theorems, differential forms, calculus on manifolds, and Lebesgue integration.
Prerequisite: MATH 063.
Eligible for COGS credit.
1 credit.
Fall 2014. Mavinga. Spring 2015. Talvacchia.
MATH 102. Modern Algebra II
This seminar is a continuation of Introduction to Modern Algebra (MATH 067). Topics covered usually include field theory, Galois theory (including the insolvability of the quintic), the structure theorem for modules over principal ideal domains, and a theoretical development of linear algebra. Other topics may be studied depending on the interests of students and instructor.
Prerequisite: MATH 067.
Eligible for COGS credit.
1 credit.
Spring 2015. Grood.

## MATH 103. Complex Analysis

A brief study of the geometry of complex numbers is followed by a detailed treatment of the Cauchy theory of analytic functions of a complex variable: integration and Cauchy's theorem, power series, residue calculus, conformal mapping, and harmonic functions. Various applications are given, and other topics-such as elliptic functions, analytic continuation, and the theory of Weierstrass-may be discussed.
Prerequisite: MATH 063.
1 credit.
Alternate years.
Not offered 2014-2015.
MATH 104. Topology
An introduction to point-set, combinatorial, and algebraic topology: topological spaces,

Mathematics and Statistics
classification of surfaces, the fundamental group,
covering spaces, simplicial complexes, and
homology (including related algebra).
Prerequisites: MATH 063 and 067.
Eligible for COGS credit.
2 credits.
Alternate years.
Not Offered 2014-2015.
MATH 105. Probability
Advanced topics in probability theory. Topics may include branching processes, card shuffling, the
Central Limit Theorem, generating functions, the Laws of Large Numbers, Markov chains, optimal stopping theory, percolation, the Poisson process, renewal theory, and random walks.
Prerequisite: STAT 061.
1 credit.
Alternate years.
Spring 2015. Grinstead.
MATH 106. Advanced Topics in Geometry
The course content varies from year to year among differential geometry, differential topology, and algebraic geometry. In 2013, the topic is expected to be advanced differential geometry.
Prerequisites: MATH 055 and 063 or permission of the instructor.
1 credit.
Alternate years.
Spring 2015. Chen.
STAT 111. Mathematical Statistics II
This seminar is a continuation of STAT 061. It deals mainly with statistical models for the relationships between variables. The general linear model, which includes regression, variance, and covariance analysis, is examined in detail. Topics may also include nonparametric statistics, sampling theory, and Bayesian statistical inference.
Prerequisites: Linear algebra and a grade of C+ or better in STAT 061; CPSC 021.
Eligible for COGS credit.
1 credit.
Spring 2015. Everson.

| Coordinator: | CRAIG WILLIAMSON (English Literature) |
| :--- | :--- |
| Committee: | Tariq al-Jamil (Religion) |
|  | Stephen P. Bensch (History) |
|  | Alan Berkowitz (MLL: Chinese) $^{2}$ |
|  | Michael W. Cothren (Art History) $^{2}$ |
|  | Steven Hopkins (Religion) |
|  | Rosaria V. Munson (Classics) |
|  | Ellen M. Ross (Religion) |
|  | William Turpin (Classics) |

${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

Swarthmore's Medieval Studies Program offers students the opportunity to study in an interdisciplinary and cross-cultural fashion a variety of often interrelated medieval civilizations-European, Mediterranean, Middle Eastern, Islamic, South and West Asian-from the 4th to the 15th centuries. The program draws upon a variety of critical and cross-disciplinary approaches to explore medieval cultures, their distinctive qualities and historical connections, their material and spiritual productions, their artistic creations, and their relation to earlier and later cultures.
The heart of the Medieval Studies Program is its interdisciplinary approach. The faculty and students in this program believe that the medieval period, its history, languages and literatures, art and architecture, religion and philosophy, music and meaning, are best studied from a variety of critical perspectives in which discipline and dialogue go hand in hand, where each person's knowledge is tested and expanded by another's approach, and where we come together in the words of Chaucer's Clerk to "gladly lerne and gladly teche."

## The Academic Program

Students may major or minor in medieval studies in either the Course or Honors Program. Students must take work in a variety of medieval subjects to be drawn from art history, history, literature, music, religion, and philosophy. Majors often do research abroad on college-sponsored fellowships during the summer of their junior year and then write a thesis, which they present as seniors to an interdisciplinary Medieval Studies Committee or a panel of honors examiners.

## Requirements

All students who major or minor in medieval studies, either in honors or course, must fulfill the program's distribution requirements by taking medieval courses from the following distribution areas: 1. art history 2 . history 3 . literature (English, classics, etc.) 4. music 5 . religion or philosophy. The list of Swarthmore medieval studies courses as well as medieval courses at Bryn Mawr and

Haverford is regularly updated on the program website.

## Course Major

Course majors must take at least 8 credits in medieval subjects, including at least one medieval course in four of the five distribution areas (must include history), and pass a senior comprehensive which includes a written and oral exam given by the student's instructors in her or his medieval courses. These examinations are intended to be a culminating exercise to facilitate the review and integration of the various subjects and methods involved in the interdisciplinary field of medieval studies.

## Honors Major

Honors majors must take at least one medieval course in four of the five distribution areas (must include history). The Honors Program itself will include four double-credit preparations in medieval subjects which reflect the interdisciplinary nature of the major and must include work in at least three of the distribution areas. The preparations may be constituted by some combination of the following: seminars, preapproved two-course combinations, courses with attachments, or a thesis. Senior Honors Study for honors majors in medieval studies will follow the policies of the individual departmental preparations used in the program. Honors majors will have a 90- to 120-minute oral panel examination with all four examiners present. These examinations are intended to be a culminating exercise to facilitate the review and integration of the various subjects and methods involved in the interdisciplinary field of medieval studies. Honors major normally do not have a separate minor as part of their Medieval Studies Honors Program, but they may apply one of their four honors preparations toward an honors minor. In such a case, a student must fulfill all the requirements set by the relevant department or program of that honors minor.

## Course Minor

Course minors must take 5 credits in medieval subjects in at least three distribution areas. Only one of these credits can also be in the department of the student's major.

## Honors Minor

Honors minors must take 5 credits in medieval subjects in at least three distribution areas. The honors preparation in a medieval subject should reflect the interdisciplinary nature of the minor and may be satisfied by one of the following: a seminar, a preapproved two-course combination, a course with an attachment, or in special cases a thesis. The minor preparation must be in a department distinct from the student's major. Senior Honors Study and written and oral honors exams will follow the pattern of the department in which the preparation is offered.
Courses and seminars in the various departments which are counted as medieval studies courses are listed in the College Catalog and online. Students may also take medieval courses at Bryn Mawr or Haverford as part of their program.

## Courses

The following medieval studies courses are currently offered at Swarthmore. Other courses may be considered on petition to the Medieval Studies committee. Courses marked with an asterisk may count as a Medieval Studies course if the student chooses to focus on medieval materials; see the instructor for details. Majors and minors are also allowed to include medieval courses from Bryn Mawr, Haverford, and the University of Pennsylvania in their curriculum.
ARTH 002, The Western Tradition*
ARTH 014. Early Medieval Art and Architecture
ARTH 045. Gothic Art and Architecture
CHIN 016 (LITR 016CH): Substance, Shadow, and Spirit in Traditional Chinese Literature and Culture
CHIN 027: The Story in Dynastic China*
CHIN 033 (LING 033): Introduction to Classical Chinese
CHIN 066: Chinese Poetry
CHIN 069 (LITR 069CH): The Art of Living:
Taste and Aesthetics in Chinese Cultural Traditions*
CLAS 060. Dante’s Divine Comedy
CLAS 091 (LING 091). Hero Time Travel*
ENGL 010. Survey I: Beowulf to Milton*
ENGL 014. (LING 014). Old English/History of the Language
ENGL 016. Chaucer
ENGL 019. Chaucer and Shakespeare

ENGL 046. Tolkien and Pullman and Their Literary Roots*
HIST 001A. The Barbarian North
HIST 001T. Cross and Crescent: Muslim-Christian
Relations in Historical Perspective
HIST 002A. Medieval Europe
HIST 006A. The Formation of the Islamic Near East
HIST 012. Chivalric Society: Knights, Ladies, and Peasants
HIST 014. Friars, Heretics, and Female Mystics: Religious Turmoil in the Middle Ages
HIST 015. From Rome to Renaissance Florence: Making Urban Europe
HIST 016. Sex, Sin, and Kin in Early Europe
LATN 014. Medieval Latin
MUSI 020. Medieval and Renaissance Music
MUSI 047. Fetter Chamber Music Program (in which one can focus on medieval repertory)
RELG 008B. The Qur'an and Its Interpreters RELG 011B. The Religion of Islam: The Islamic Humanities
RELG 014B. Christian Life and Thought in the Middle Ages
RELG 020. Christian Mysticism
RELG 031B. Religion and Literature: From the Song of Songs to the Hindu Saints
RELG 053. Gender, Sexuality and the Body in Islam
RUSS 047 (LITR 047): Russian Fairy Tales*
MDST 096. Thesis
MDST 180. Senior Honors Thesis

## Seminars

ARTH 147. Visual Narrative in Medieval Art
CHIN 104: Chinese Poetry
ENGL 105. Tolkien and Pullman and Their Literary Roots*
HIST 111. Medieval Mediterranean
RELG 100. Holy War, Martyrdom, and Suicide in
Christianity, Judaism, and Islam
RELG 101. Jesus in History, Literature, and Theology*
RELG 108. Poets, Saints, and Storytellers: The
Poetry and Poetics of Devotion in South Asian Religions
RELG 114. Love and Religion
RELG 119. Islamic Law and Society
RELG 127. Heresy and Secrecy

HAILI KONG, Professor and Chair
ELEONORE BAGINSKI, Administrative Coordinator
BETHANNE SEUFERT, Administrative Assistant
Arabic
KHALED AL-MASRI, Assistant Professor
BENJAMIN SMITH, Visiting Assistant Professor
AHMED MUHAMED, Lecturer
Chinese
ALAN BERKOWITZ, Professor
HAILI KONG, Professor
NAN MA, Visiting Instructor
JU-HUI CHIU, Lecturer
WOL A KANG, Lecturer
KIRSTEN E. SPEIDEL, Lecturer

## French

JEAN-VINCENT BLANCHARD, Professor
MICHELINE RICE-MAXIMIN, Associate Professor ${ }^{2}$
CARINA YERVASI, Associate Professor
ALEXANDRA GUEYDAN-TUREK, Assistant Professor
BENJAMIN CHEREL, Lecturer
ARNAUD COURGEY, Visiting Lecturer

## German Studies

HANSJAKOB WERLEN, Professor ${ }^{3}$
SUNKA SIMON, Professor
TESSA WEGENER, Visiting Assistant Professor
CHRISTOPHER SCHNADER, Lecturer
Japanese
WILLIAM O. GARDNER, Associate Professor
YOSHIKO JO, Lecturer
ATSUKO SUDA, Lecturer ${ }^{3}$
CHRISTOPHER SCHAD, Visiting Lecturer

## Russian

SIBELAN FORRESTER, Professor
BRIAN JOHNSON, Assistant Professor
JASMINA LUKIC, Cornell Visiting Professor
TSVETELINA YORDANOVA, Lecturer
Spanish
MARÍA LUISA GUARDIOLA, Professor
LUCIANO MARTÍNEZ, Associate Professor
NANCI BUIZA, Assistant Professor
ADRIÁN GRAS-VELÁZQUEZ, Visiting Assistant Professor
FELIPE VALENCIA, Visiting Assistant Professor
JULIA CHINDEMI VILA, Lecturer
PATRICIA VARGAS, Lecturer
Language Resource Center
MICHAEL JONES, Language Resource Center Director
ALEXANDER SAVOTH, Language Resource Center Technologist
${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

## The Academic Program

Our courses balance traditional objects of study with emerging interdisciplinary projects on topics such as urban modernity, gender and sexuality, and media representations and manipulations of cultural values. Our curriculum engages the classics of world literature while also adapting to
reflect the latest redefinitions and debates occurring within the Humanities. The linguistic knowledge students acquire in our courses enables them to speak and write confidently about texts and contexts, to go abroad and encounter the world and its residents in very different, more informed and meaningful ways.

Along with demonstrated competence in the language, a foreign literature major will normally complete a minimum of 8 credits in courses in advanced language, literature, or culture, and a culminating exercise such as a thesis, an oral or written comprehensive examination, or honors examinations. Depending on the program, one or more courses for the major may be taken in English. The department encourages interdisciplinary approaches and pertinent special majors. Students interested in more than one literature are encouraged to consider a major in comparative literature. Students with strong interest in learning languages and their mechanics should also take note of the related major in Linguistics and Languages. The department collaborates with educational studies to help students who wish to get teacher certification.

## The Language Requirement

To receive the degree of Bachelor of Arts or Bachelor of Science, candidates must fulfill a foreign language requirement. The foreign language requirement can be fulfilled by:
(a) Successfully studying 3 years or the "block" equivalent of a single foreign language in grades 9 through 12 (work done before grade 9 cannot be counted, regardless of the course level);
(b) Achieving a score of 600 or better on a standard achievement test of a foreign language;
(c) Passing either the final term of a college-level, yearlong, introductory foreign language course or a semester-long intermediate foreign language course; or
(d) Learning English as a foreign language while remaining demonstrably proficient in another.
If you have fulfilled your language requirement, the department encourages you to use your time at Swarthmore to become truly proficient in that language, or to discover a new one.
Students whose placement recommendation is above the language sequence should consider taking introductory and/or advanced courses, many of which fulfill the College's writing requirement.

## Placement Tests

The Modern Languages and Literatures Department offers placement tests so as to appropriately position students in language classes when they arrive on campus. New students who have previously studied or have fluency in a language offered at Swarthmore should plan to take a placement test either online (French, German, and Spanish), during orientation week/the start of classes (Arabic, Chinese, and Japanese), or to meet with the section head (Russian). Students who have French/German/Spanish AP/IB are also required to take the online placement test. Upperclass students interested in taking placement test should contact Michael Jones in the Language

Resource Center for information and instructions (mjones 1, 610-328-8036).
For French only, first-year students with a 531 or higher on their online French placement test are required to take the written literature/culture essay placement test during orientation week to be correctly placed in a French class.
Note: Placement Tests are not a substitute for an official standard achievement test of a foreign language (such as the College Board exam or the International Baccalaureate). Therefore, they do not serve as proof of achievement for the purpose of fulfilling the language requirement. These tests are only intended to assist instructors in placing students in the appropriate Swarthmore course.
For additional information on placement visit each program's website.

## Advanced Placement and International Baccalaureate Credit

The department will grant 1 credit for incoming students who achieved a score of 4 or 5 on Advanced Placement Chinese, French, German, Japanese, Russian or Spanish examinations once they have successfully completed a one-credit course in that language at the College.
The department will grant 1 credit for incoming students who have achieved a score of 6 or 7 in a foreign language on the International Baccalaureate once they have successfully completed a one-credit course in that language at the College.
Students who took an AP or IB exam should consult the department administrative coordinator, Eleonore Baginski (ebagins1) for more information.
Note: Students with French/German/Spanish APIB scores are nonetheless required to take the online placement test.

## Explanatory Note On First- And Second-Year Language Courses

Courses numbered 001-002, 003, and, in some languages also 004 , carry 1.5 credits per semester. Four semesters in this sequence are equivalent to two or sometimes more years of work at the college level.
These courses encourage development of communicative proficiency through an interactive task-based approach and provide students with an active and rewarding learning experience as they strengthen their language skills and develop their cultural competency These courses meet alternately as sections for grammar presentation and small groups for oral practice and may also require work in regular scheduled tutorials or in the Language Resource Center.
Students who start in the $001-002$ sequence must complete 002 to receive credit for 001 . However, students placing directly in 002 can receive 1.5
semester credits for that course. Please note that students must register for both parts of the course in the 001-004 sequence.

## Teacher Certification

We offer teacher certification in modern languages (French, German, and Spanish) through a program approved by the state of Pennsylvania. For further information about the relevant requirements, please refer to the Educational Studies section of the College Bulletin or see the Educational Studies Department website:
www.swarthmore.edu/educationalstudies.xml.

## Explanatory Note of Foreign Language

 Teaching And Pedagogy CoursesThe Foreign Language Teaching and Pedagogy program is a service-learning program designed to give Swarthmore students practice teaching in their target language by offering early foreign language education to school age children.
Swarthmore students teach their foreign languages to local elementary school students in an afterschool program that meets two times per week for six weeks. Swarthmore students study foreign language acquisition and prepare goal-oriented lesson plans in the pedagogy session that meets over the course of the semester and concurrently with the service (teaching) component of the program. The program brings Swarthmore students into the classroom as language teachers, gives them tools to identify educational goals for language learning, and offers support for the creation of lesson plans. The goal of the program at the elementary school is to help young children expand their comprehension of the world around them and bring them to a closer understanding and acceptance of cultures other than their own. This course is required for $\mathrm{K}-12$ certification in Foreign Languages for majors in Educational Studies. Prerequisites for this course are native fluency or the equivalent of fourth-semester language competencies in one of the seven languages offered in MLL. Courses are listed under the teaching target language. See CHIN 013A, FREN 024, GMST 024, JPNS 014A, RUSS 012A, and SPAN 024, which are cross-listed with EDUC 072 . Each course carries 0.5 credits per semester.

## Off-Campus Study

Students on financial aid may apply that aid to designated programs of study abroad.
Study abroad is particularly encouraged for students of Arabic; academic credit (full or partial) is generally approved for participation in programs of varying duration in different Arab countries that are recommended by the Arabic section. These include, but are not limited to, universities and programs in Egypt, Jordan, Lebanon, Morocco, Oman, and Tunisia.

Study abroad is particularly encouraged for students of Chinese; academic credit (full or partial) is generally approved for participation in several programs of varying duration in the People's Republic of China and in Taiwan, recommended by the Chinese section. In the People's Republic these include, but are not limited to, the Inter-University Program (IUP) Program at Tsing-hua University, the Associated Colleges in China (ACC) Program, the CET Program in Harbin and the Middlebury program in Kunming. In Taiwan, these include the International Chinese Language Program (ICLP), the Mandarin Training Center in Taipei and the Chinese Language Center, National Cheng Kung University in Taiwan.
All French/Francophone studies majors are required to complete a preapproved, semester-long study abroad program in a French-speaking country. Minors are strongly encouraged to attend such semester-long programs and should at least attend a preapproved six-week summer program in a francophone country.
Students of German studies are strongly encouraged to spend at least a semester in a German-speaking country. There are several excellent opportunities to participate in an approved program, such as the Columbia Consortium Program in Berlin, the Macalester College German Study Program in Berlin/Vienna, or the Dickinson college program in Bremen. Students should consider going abroad in the spring semester. This will enable them to participate fully in the semester schedule of German and Austrian Universities.
Students of Japanese are strongly encouraged to participate in study abroad programs. Swarthmore College participates in a regular exchange program with Tokyo University (the AIKOM program), and the Japanese Section has prepared a carefully selected list of other recommended programs in Kyoto, Nagoya, and elsewhere. Students interested in study abroad should consult with the head of the Japanese Section for more information.
Students in Russian are strongly encouraged to spend at least one semester in the A.C.T.R., C.I.E.E., or Middlebury programs or at the Smolny Institute through Bard College, among others in Russia.
All Spanish majors and minors are required to complete a study abroad program in a Spanishspeaking country. Swarthmore College offers students interested in studying abroad several programs listed on the Spanish website www.swarthmore.edu/academics/spanish/studyabroad.xml. To ensure full immersion, all courses taken abroad must be taken in Spanish. We strongly suggest that majors and minors as well as non-specialists meet with a Spanish faculty member to discuss the possibilities and find the program that best suits their academic needs and interests.

Students who plan to do graduate work are reminded that, in addition to the language of specialization, a reading knowledge of other languages is often required for admission to advanced studies.
The department also certifies credit for off-campus study of languages that are not taught at Swarthmore, such as Cantonese, Catalan, Farsi, Hungarian, Italian, Polish, Twi, and so on.

## Literatures in Translation

Students who are already proficient in a particular foreign language are urged to select an appropriate literature/culture course taught in the original
language. LITR courses provide students with the opportunity to study cultural material that they cannot read in the original and often to study literature in a comparative context.
In some language programs, these courses cannot be substituted for the introductory course sequence between 010 and 020 to satisfy departmental prerequisites for a major or minor in the original languages, but many of these courses can satisfy the 8 credit requirement of a foreign literature/studies major as each section specifies.

LITR 006G. First-Year Seminar: Exploring the Boundaries of Travel Writing
This first-year seminar examines the formation of cultural identity through the lens of mobility and travel. The specific focus of this course will enable students to grapple with topics related to transcultural encounter and representations of otherness. Students will be asked to engage in critical readings of texts that complicate traditional notions of travel. They will also develop a keen perception of how spatial dynamics and historical contexts shape the perspectives from which travel is narrated. Works included in the course are colonial texts, narratives of exile and Holocaust deportation, literary road trips and documentary travelogue films.
1 credit.
Not offered 2014-2015.
LITR 009CH. First-Year Seminar: Heaven, Earth, and Man: Ways of Thought in Traditional Chinese Culture
(Cross-listed as CHIN 009)
This introductory course explores the most influential currents of thought and culture in traditional China, through directed readings and discussions of original sources in translation. No prerequisites and no knowledge of Chinese or of China are required.
1 credit.
Not offered 2014-2015.

LITR 009S. First-Year Seminar: A New World: Conquests, Encounters and Dialogues in and around Latin America (W)
(Cross-listed as SPAN 009)
This first-year seminar explores the New World that resulted from the "discovery," colonization and exploitation of Latin America by the
Europeans, particularly the Spanish. The encounter between the "Old" and the "New" Worlds was a two-way exchange in which new cultures emerged from the ruins of those destroyed, and the way of conceiving of the world and the self was utterly transformed for all involved. We will read texts by Europeans who encountered others and imposed upon them, but also texts by the defeated, where they tell their side of the story. Furthermore, we will pay special attention to those subjects in between different worlds, from Florida and Peru to Mozambique and Japan. Readings include texts by Columbus, Cortés and Las Casas; Aztecs, Mayans and Incas; and More, Montaigne and Shakespeare. In English.
Eligible for LASC Credit.
Writing Course.
1 credit.
Fall 2014. Valencia.

## LITR 013R. The Russian Novel: The

## Classic Tradition

(Cross-listed as RUSS 013)
This course surveys the rise of the Russian novel during the nineteenth century. We will read works by Lemontov, Gogol, Turgenev, Dostoevsky and Tolstoy. Our examination of the literary and rhetorical strategies of these authors will be grounded in an understanding of their cultural context. We will probe issues of Russia's national identity, class system, and tendency toward authoritarianism during this paradoxical century of inertia and upheaval. As a writing course, polished academic writing and the process of revision is given particular emphasis.
Writing course
1 credit
Fall 2014. Johnson.
LITR 014R. The Russian Novel: Revolution, Terror and Resistance
(Cross-listed as RUSS 014)
This course surveys the Russian novel during the twentieth century, from the years leading up to the Bolshevik Revolution, through the Soviet era, and into the post-Cold War period. Works include Andrei Bely's modernist novel Petersburg, Yuri Zamiatin's sci-fi dystopia We, and Mikhail Bulgakov's Faustian masterpiece Master and
Margarita. In addition to exploring ideas of genre and artistic strategy, particular focus will be paid
to the ways in which these and other authors resist the terror and repression of their respective eras.
1 credit.
Fall 2015. Staff.

## LITR 015R. East European Prose in <br> Translation

(Cross-listed as RUSS 015)
Novels and stories by the most prominent 20thcentury writers of this multifaceted and turbulent region. Analysis of individual works and writers with the purpose of appreciating the religious, linguistic, and historical diversity of Eastern Europe in an era of war, revolution, political dissent, and outstanding cultural and intellectual achievement. Readings, lectures, writing and discussion in English; qualified students may do some readings in the original language(s).
Writing course.
1 credit.
Fall 2014. Lukic.

## LITR 016CH. Substance, Shadow, and Spirit in Chinese Literature and Culture

 (Cross-listed as CHIN 016)This course will explore the literary and intellectual world of traditional Chinese culture, through original writings in English translation, including both poetry and prose. Topics to be discussed include Taoism, Confucianism, and the contouring of Chinese culture; immortality, wine, and allaying the mundane; and the religious
dimension, disengagement, and the appreciation of the natural world. The course also will address cultural and literary formulations of conduct and persona and the expression of individualism in an authoritarian society.
1 credit.
Spring 2015. Berkowitz.

## LITR 017F. First-Year Seminar: Literature

 and Medicine(Cross-listed as FREN 017)
Portrayals of doctors provide a great opportunity
to discover some classic works of French
Literature, including Molière's The Imaginary Invalid, Flaubert's Madame Bovary, Proust's Swann's Way, and Albert Camus' The Plague. Other authors studied are Montaigne and Diderot. Students focus their discussions on the relationship with patients when these are seen as both humans beings and objects of science. Another topic of interest is how literature can be viewed as therapeutic. Throughout the seminar, we try to understand what had made these works original in their times and a source of admiration up to our days. Texts and discussions in English.
1 credit
Fall 2014. Blanchard.

LITR 017J. First-Year Seminar: The World of Japanese Drama
(Cross-listed as JPNS 017 and THEA 017)
This first-year seminar will explore the unique dramatic traditions of Japan from diverse angles, including a study of dramatic texts, videos of performance, and films based on famous dramatic works. Our seminar will focus on the three great dramatic traditions of Noh masked drama, Bunraku puppet theater, and Kabuki. We will also examine the cultural background of these dramatic forms, including the influence of Buddhism, Shintô, and shamanism, as well as the philosophical background and methodology of training and performance.
1 credit.
Not offered 2014-2015.
LITR 017R. First-Year Seminar: Love and

## Sex in Russian Literature

(Cross-listed as RUSS 017)
Best known for political priorities and philosophical depth, Russian literature has also devoted many works to the eternal concern of love and sex. We will read significant and provocative works from traditional folk tales through the 21st century to discuss their construction of these most "natural" impulses-and how they imagine the relationship of human attraction to art, politics and philosophy.
Writing course.
1 credit.
Not offered 2014-2015.

## LITR 021J. Modern Japanese Literature

 (Cross-listed as JPNS 021)An introduction to Japanese fiction from the Meiji Restoration (1868) to the present day, focusing on how literature has been used to express the personal voice and to shape and critique the concept of the modern individual. We will discuss the development of the mode of personal narrative known as the "I novel" as well as those authors and works that challenge this literary mode. In addition, we will explore how the personal voice in literature is interwoven with the great intellectual and historical movements of modern times, including Japan's encounter with the West and rapid modernization, the rise of Japanese imperialism and militarism, World War II and its aftermath, the emergence of an affluent consumer society in the postwar period, and the impact of global popular culture and the horizon of new transnational identities in the 21st century. All readings and discussions will be in English. 1 credit.
Not offered 2014-2015.
LITR 021R. Dostoevsky (in Translation)
(Cross-listed as RUSS 021)

## MLL: Literatures in Translation

Writer, gambler, publicist, and visionary Fedor Dostoevsky is one of the great writers of the modern age. His work inspired Nietzsche, Freud, Woolf, and others and continues to exert a profound influence on thought in our own society to the present. Dostoevsky confronts the "accursed questions" of truth, justice, and free will set against the darkest examples of human suffering: murder, suicide, poverty, addiction, and obsession. Students will consider artistic, philosophical, and social questions through texts from throughout Dostoevsky's career. Students with knowledge of Russian may read some or all of the works in the original.
1 credit.
Spring 2016. Staff.
LITR 023CH. Modern Chinese Literature: A New Novelistic Discourse (1918-1948)
(Cross-listed as CHIN 023)
Modern Chinese literary texts created between
1918 and 1948, presenting a series of political, social, cultural, and ideological dilemmas underlying 20th-century Chinese history. The class will discuss fundamental issues of modernity and new literary developments under the impact of the May Fourth Movement. No previous preparation in Chinese required. All texts are in English translation, and the class is conducted in English. 1 credit.
Not offered 2014-2015.
LITR 023R. The Muslim in Russia
(Cross-listed as RUSS 023)
The long and strong relationship of Russia and Islam has been neglected in scholarship until recently. This course will examine texts (and films) spanning more than a thousand years, to introduce actual interactions of Russians and Muslims, images of Muslims in Russian literature (and a few Muslim images of Russia), the place of Muslim writers in Soviet literature, and the current position of Muslims in Russia and in Russian discourse.
Eligible for ISLM credit.
1 credit.
Not offered 2014-2015.

## LITR 024J. Japanese Film and Animation

 (Cross-listed as JPNS 024/FMST 057)This course offers a historical and thematic introduction to Japanese cinema, one of the world's great film traditions. Our discussions will center on the historical context of Japanese film, including how films address issues of modernity, gender, and national identity. Through our readings, discussion, and writing, we will explore various approaches to film analysis, with the goal of developing a deeper understanding of formal and thematic issues. A separate unit will consider the postwar development of Japanese animation
(anime) and its special characteristics. Screenings will include films by Ozu, Mizoguchi, Kurosawa, Imamura, Kitano, and Miyazaki.
1 credit.
Not offered 2014-2015.

## LITR 025A War in Arab Literature and

 Cinema(Cross-listed as ARAB 025)
This course will explore literary and cinematic representations of war in the Arab world, focusing on the Arab-Israeli Conflict, the Lebanese Civil War, and the Iraq wars. We will look at poetry, fiction, memoir, prison narratives, film, and experimental texts. Through the examination of a variety of experiences, genres, and perspectives, we will ask questions like: How do narratives of war contribute to the formation of national, local, and Arab identities? How has the experience of war impacted understandings of religion, masculinity, gender, and domestic violence? We will identify common themes and images, and also investigate how these patterns change and develop in different spatial and temporal contexts.
Eligible for ISLM and PEAC credit.
1 credit.
Not offered 2014-2015.

## LITR 026R. Russian and East European

## Science Fiction

(Cross-listed as RUSS 026)
Science fiction enjoyed surprisingly high status in Russia and Eastern Europe, attracting such prominent mainstream writers as Karel Čapek, Mikhail Bulgakov, and Evgenii Zamiatin. In the post-Stalinist years of stagnation, science fiction provided a refuge from stultifying official Socialist Realism for authors like Stanisław Lem and the Strugatsky brothers. This course will concentrate on 20th-century science fiction (translated from Czech, Polish, Russian and Serbian) with a glance at earlier influences and attention to more recent works, as well as to Western parallels and contrasts.
1 credit.
Spring 2015. Forrester.

## LITR 027CH. The Story in Dynastic China

 (Cross-listed as CHIN 027)In this class we will read in translation and discuss a fair sampling of imperial China's most renowned stories. In exploring the most celebrated and influential examples of narrative literature from early times into the Qing dynasty, we will look at these stories, some short, others quite elaborate, in terms of overt structure and content, as well as backgrounded literary and cultural material, and we will address their production and consumption in literati and popular contexts. We also will consider these writings in terms of the formulation of enduring cultural contours of character,

## MLL: Literatures in Translation

allegory, and lyricism; individual and society; aesthetics and emotion; imagination and realism; heroism and valor. All readings will be in English, mostly translations of original texts, with some supplementary writings about traditional Chinese fiction.
1 credit.
Fall 2014. Berkowitz.

## LITR 029A. Arabs Write the West

(Cross-listed as ARAB 029)
Drawing on historical, fictional, and autobiographical narratives, this course investigates Arab representations of the Occident. These texts explore cultural encounters, both at home and abroad, border crossings, hybridity, experiences of colonialism and neocolonialism, the psychology of Orientalism and Occidentalism, processes of assimilation and resistance, and the question of contact zones. Differences in geography, period, context, and positionality will provide a variety of perspectives on the theme. Works by Abd Al-Rahman Al-Jabarti, Rifa‘a AlTahtawi, Yahya Haqqi, Sulaiman Fayyad, Tayyib Salih, Leila Ahmed, and Fadia Faqir will be discussed. This course is taught in English. Eligible for ISML credit.
1 credit.
Spring 2015. Al-Masri.

## LITR 030A. Literature of Resistance

## (Cross-listed as ARAB 030)

This course explores Arabic texts that take a stand against contemporary political, social, or economic realities. Fiction and non-fiction accounts as well as poetry will be investigated alongside experimental contemporary genres and blogs to uncover the different ways in which Arabs are attempting to rewrite the world around them. The theme of resistance-against colonialism, state oppression, social codes, and literary norms-will shape our discussions. New narratives inspired by the Arab uprisings will receive special focus. This course is taught in English.
Eligible for ISLM or PEAC credit.
1 credit.
Fall 2014. Smith.

## LITR 035J. Narratives of Disaster and

## Rebuilding in Japan

(Cross-listed as JPNS 035)
This course will explore documentary and fictional representations of the modern Japanese landscape and cityscape in crisis, with special attention to the role of the March 2011 earthquake, tsunami, and nuclear disaster as a catalyst for change in contemporary Japan. Documentaries and fictionalizations of the 2011 "triple disaster" reignited debates over cultural trauma and the ethics of representing disaster. Through the study of literature, film, and critical discourse, we will
examine the historical and cultural implications of such famous 20th-century disaster narratives as Godzilla and Japan Sinks, as well as the latest writing and films from Japan, in the context of public debates about safety, sustainability, and social change after the March 2011 tsunami and nuclear disaster.
The course is a part of the BMC $360^{\circ}$ course cluster "Perspectives on Sustainability: Disasters and Rebuilding in Japan." The final project for the $360^{\circ}$ course cluster will involve an exhibition utilizing objects and texts in the Trico special collections and archives. Readings and discussions will be in English. Course enrollment is limited; priority for registration will be given to $360^{\circ}$ students and Japanese and Asian Studies majors and minors.
Eligible for ASIA or ENVS credit. 1 credit.
Not offered 2014-2015.
LITR 041J. Fantastic Spaces in Modern Japanese Literature
(Cross-listed as JPNS 041)
As Japanese society has transferred rapidly in the 20th century and beyond, a number of authors have turned to the fantastic to explore the pathways of cultural memory, the vicissitudes of interpersonal relationships, the limits of mind and body, and the nature of storytelling itself. In this course, we will consider the use of anti-realistic writing genres in Japanese literature from 1900 to the present, combining readings of novels and short stories with related critical and theoretical texts. Fictional works examined will include novels, supernatural tales, science fiction, and cyber-fiction by authors such as Tanizaki Junichirô, Abe Kôbô, Kurahasi Yumiko, and Murakami Haruki.
Writing course.
1 credit.
Not offered 2014-2015.

## LITR 042R. Revolutionary Theater

(Cross-listed as RUSS 042)
We start with Konstantin Stanislavsky's founding of the Moscow Art Theatre, whose revolutionary approach to acting, directing and set design exerts a profound effect on Western theater to this day. Concurrently we will examine Anton Chekhov's four major plays and their integral part in the success of the Moscow Art Theatre. We then examine the effect of the Soviet revolution on Russian theater from two viewpoints. On the one hand, we will follow the arc of directors and playwrights such as Vsevelod Meyerhold who embraced the Soviet revolution and reflected this embrace in their radically innovative and futuristic productions and set designs. On the other hand, we will follow the tragic arc of playwright Mikhail Bulgakov and his stormy relationship with the

Moscow Art Theater and the Soviet regime by reading his plays and his bitingly funny satire Black Snow.
1 credit.
Spring 2015. Johnson.

## LITR 045A. Contemporary Thought in the

## Arab World

(Cross-listed as ARAB 045)
This survey course will trace some of the main themes, problems and issues that have been debated among Arab thinkers and intellectuals since the latter part of the 19th century. The course will start with the 19th century but emphasize discussions following the military defeat of 1967 and the ensuing cultural and political crisis. Discussions related to "turath" (heritage), the different strategies of its reading and interpretation, and the possibilities of using these readings to confront the contemporary challenges of a globalized world will be the center of attention of the course.
Readings for the course will comprise three types of texts: historical and social background, translations of texts by the different thinkers under discussion, and articles and essays that interpret and critique these thinkers.
Eligible for ISLM credit.
1 credit.
Not offered 2014-2015.

## LITR 047R. Russian Fairy Tales

(Cross-listed as RUSS 047)
Folk beliefs are a colorful and enduring part of Russian culture. This course introduces a wide selection of Russian fairy tales in their esthetic, historical, social, and psychological context. We will trace the continuing influence of fairy tales and folk beliefs in literature, music, visual arts, and film. The course also provides a general introduction to study and interpretation of folklore and fairy tales, approaching Russian tales against the background of the Western fairy-tale tradition (the Grimms, Perrault, Disney, etc.). No fluency in Russian is required, although students with adequate language preparation may do some reading, or a course attachment, in the original. Eligible for INTP credit.
1 credit.
Spring 2016. Forrester.
LITR 049S. Cervantes' Don Quixote : The Narrative Quest
(Cross-listed as SPAN 049)
What is it about Don Quixote's tilting at windmills and acting as if life followed the rules of fiction that has captivated the imagination of so many writers and thinkers ever since it was written in Spain four hundred years ago? This course explores Cervantes's Don Quixote (1605-1615) through theoretical texts, from Bakhtin to

Foucault, from Lukacs to Borges, in order to think about Cervantes's innovations in narrative technique, the possibility of interpretation, and the nature of fiction and reality. Students will acquire tools of literary analysis and theory. In English.
1 credit.
Spring 2015. Valencia.
LITR 051J. Japanese Poetry and Poetics (Cross-listed as JPNS 051)
Japanese poetic forms such as haiku, renga, and tanka have had a great impact on modern poetry across the world, and have played a central role in the development of Japanese literature and aesthetics. This course will examine Japanese poetry from its roots in ancient oral tradition through the internet age. Topics include the role of poetry in courtship, communication, religion, and ritual; orality and the graphic tradition; the influence of poetic models from China and the West; social networks and game aesthetics in renga linked poetry; and haiku as a worldwide poetic form. Course projects will include translation and composition in addition to analytical writing. Readings will be in English, and there are no language requirements or other prerequisites; however, the course will include a close examination of Japanese poetic sound, syntax, meter, and diction, or how the poems
"work" in the original language.
1 credit.
Fall 2014. Gardner.

## LITR 054G. German Cinema

(Cross-listed as GMST 054/FMST 054)
This course is an introduction to German cinema from its inception in the 1890s until the present. It includes an examination of early exhibition forms, expressionist and avant-garde films from the classic German cinema of the Weimar era, fascist cinema, postwar rubble films, DEFA films from East Germany, New German Cinema from the 1970s, and post 1989 heritage films. We will analyze a cross-match of popular and avant-garde films while discussing mass culture, education, propaganda, and entertainment as identity- and nation-building practices.
Eligible for FMST credit, fulfills national cinema requirement.
Writing course.
1 credit.
Not offered 2014-2015.

## LITR 055CH. Contemporary Chinese

 Cinema: The New Waves (1984-2005)(Cross-listed as CHIN 055/FMST 055)
Cinema has become a special form of cultural mirror representing social dynamics and drastic changes in mainland China, Hong Kong, and Taiwan since the mid-1980s. The course will develop a better understanding of changing

Chinese culture by analyzing cinematic texts and the new wave in the era of globalization. All films are English subtitled, and the class is conducted in English.
1 credit.
Fall 2014. Kong.
LITR 059FG Diasporas in Cinema
1 credit.
Fall 2015. Simon and Yervasi
LITR 061FJ. Manga, Bande Dessinée, and the Graphic Novel: A Transnational Study of Graphic Fiction
(Cross-listed as JPNS 061)
1 credit.
Not offered 2014-2015.

## LITR 069CH. Taste and Aesthetics in

 Chinese Cultural Traditions(Cross-listed as CHIN 069)
This course will explore various dimensions of taste and aesthetics in traditional Chinese culture, from the earliest times into the recent past. Broader aspects of the course will include concept, form, and substance in classical literary, and philosophical formulations; ritual practice and ceremonial performance; and continuities and disjunctures in private vs. public and individual vs. societal taste. More focused readings and discussions will concern food, alcohol, tea, and the culinary arts; appreciation, aesthetics, and poetics in music, painting, calligraphy, literature, sculpture, and theater; the harmony of the human body and the evaluation of beauty and suitability in men and women; landscape appreciation and visions of the natural world; leisure and the passa tempo pursuits of Go, flower and tree arrangement and elegant gatherings.
Eligible for ASIA credit.
1 credit.
Spring 2015. Berkowitz.

## LITR 070R. Translation Workshop

(Cross-listed as LING 070R and RUSS 070)
This workshop in literary translation concentrates on translation theory and practice, working in poetry, prose, and drama as well as editing. Students will participate in an associated series of bilingual readings and will produce a substantial portfolio of work. Students taking the course for LING credit will write a final paper supported by a smaller portfolio of translations.
Excellent knowledge of a language other than English (equivalent to a 004 course at Swarthmore or higher) is highly recommended or, failing that, access to at least one very patient speaker of a foreign language.
1 credit.
Fall 2014. Forrester.

LITR 072F. French Literature in Translation
This course is designed to provide students with a broad knowledge of French literature, from before the Revolution to the present. Among the authors included on the syllabus are: Molière, Voltaire, Balzac, Baudelaire, Proust, Camus and Sartre.
Students will read works in their entirety, discuss their significance in class, and listen to short lectures to situate the readings in a historical and cultural context.
1 credit.
Spring 2016. Blanchard.

## LITR 073F. The French New Wave

(Cross-listed as FMST 073)
This course is an in-depth exploration of the development and evolution of the French New Wave in postwar France. We will concentrate on the history of the New Wave in France from the 1950s through the late 1960s by the close study of the styles of individual filmmakers, the "film movement" as perceived by critics, and the New Wave's contribution to modernizing France. The primary emphasis will be on the stylistic, socio-
political, and cultural dimensions of the New
Wave, and the filmmakers and critics most closely associated with the movement.
1 credit.
Fall 2014. Yervasi.

## LITR 073FA. The French New Wave

 (attachment)Attachment course for students enrolled in LITR 073F. Translation for students reading in French. 0.5 credit.

Fall 2014. Yervasi.
LITR 074J. Japanese Popular Culture and Contemporary Media
(Cross-listed as JPNS 074)
Japanese popular culture products such as manga (comics), anime (animation), television, film, and popular music are an increasingly vital element of 21st-century global culture, attracting ardent fans around the world. In this course, we will critically examine the postwar development of Japanese popular culture, together with the proliferation of new media that have accelerated the global diffusion of popular cultural forms. Engaging with theoretical ideas and debates regarding popular culture and media, we will discuss the significance of fan cultures, including the "otaku" phenomenon in Japan and the United States, and consider how national identity and ethnicity impact the production and consumption of popular cultural products. We will also explore representations of technology in creative works, and consider the global and the local aspects of technological innovations, including the internet, mobile phones, and other portable technology. Readings and discussion will be in English. The

## MLL: Literatures in Translation

course will be conducted in a seminar format with student research and presentations comprising an important element of the class. Previous
coursework in Japanese studies or media studies is recommended but not required.
1 credit.
Spring 2015. Gardner.

## LITR 074S. Queer Issues in Latin American

 Literature \& Cinema.(Cross-listed as SPAN 074)
This course will map new forms of representation and interpretation at play in a set of queer issues emerging on recent Latin American literature and cinema. Emphasis will be on gay, lesbian,
bisexual, and transgender subjectivities. The aim is not merely assembling a corpus of readings around the notion of minority sexualities but to analyze how sexuality is culturally constructed in specific spatial and temporal geographies. We will also investigate the ways in which literary genres are disturbed and redeployed by queer interventions, and how cinema becomes a privileged medium for empowerment and visibility. Taught in English.
Eligible for LASC and GSST credit. 1 credit.
Spring 2016. Martínez.

## LITR 077F. Caribbean and African Literatures and Cultures in Translation

 (Cross-listed as FREN 077)Through close reading and discussion of African and Caribbean texts, originally written in French, we will examine the "re/wri/gh/t/ing" of the local and national pre/ post/colonial H/h/istories. The emphasis will be on some cultural, social and racial issues and on their rendering in distinct literary forms: language, rhythm, influences, ruptures, etc. The theoretical readings of CLR James, F. Fanon, A. and S. Césaire, E. Glissant, among others, will guide our analysis. Taught in English; and there will be a 0.5 credit French Attachment for students reading in French.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.

## LITR 081CH. Transcending the Mundane: Taoism in Chinese Literature and Culture

 (Cross-listed as CHIN 081)Chinese civilization has been imbued with Taoism for some two and one-half millennia, from popular belief and custom to intellectual and literary culture. In addition to consideration of the texts and contexts of both philosophical and religious Taoism, the class will examine the articulation and role of Taoism in Chinese literature and culture and the enduring implications of the Taoist ethos. All readings will be in English.
1 credit.
Not offered 2014-2015.

LITR 083J. War and Postwar in Japanese Culture
(Cross-listed as JPNS 083)
What was the Japanese experience of the World War II and the Allied Occupation? We will examine literary works, films, and graphic materials (photographs, prints, advertisements, etc.), together with oral histories and historical studies, to seek a better understanding of the prevailing ideologies and intellectual struggles of wartime and postwar Japan as well as the experiences of individuals living through the cataclysmic events of midcentury. Issues to be investigated include Japanese nationalism and imperialism, women's experiences of the war and home front; changing representations and ideologies of the body, war writing and censorship, the atomic bombings of Hiroshima and Nagasaki, Japanese responses to the occupation, and the war in postwar memory.
1 credit.
Not offered 2014-2015.
LITR 086R. Nature and Industry in Russian Literature and Culture
(Cross-listed as RUSS 086)
From pre-Christian religion and folklore based in forest, steppe and tundra and the enduring role of peasant culture to today's Neo-Pagans, Russian culture has been closely bound to nature, developing sustainable agricultural practices, honoring "Moist Mother Earth" and (even sophisticated city dwellers) heading out to gather berries and mushrooms. But the Soviet era pursued science-fictional plans to redesign whole landscapes, make rivers flow backwards and even revolutionize plant genetics (Trofim Lysenko). In practice, such projects led to a shrinking Aral Sea, massive pollution of industrial and agricultural sites, and the worst nuclear disaster in human history (Chernobyl)-at great human cost. Writers have both supported industrial transformation and resisted industrialization. This course will trace the evolution of these elements of Russian culture,
focusing on expressions of ideology in literature. No knowledge of Russian is necessary, but students with the language may do some reading in the original.
1 credit.
Fall 2014. Forrester.
LITR 091CH. Special Topics in Chinese Literature and Culture in Translation: Dancing Across Borders; the Body, Aesthetics and Ideologies in 20th Century China
(Cross-listed as CHIN 091)
This course uses dance as a unique artistic and theoretical prism to analyze the complex interplay among the body, aesthetics, and ideologies in 20th-century China. The goal of the course is to
familiarize the students with the transnational and transcultural context within which modern dance was first introduced into China from the West via Japan, and to show the students how to situate the evolving trajectory of dance in China in the power struggles among competing political agendas, aesthetics, ideologies, and art forms. This course teaches the basic methods to read, reconstruct, and analyze dance works. The reading materials are all in English.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.

## Arabic

Knowledge of Arabic contributes not only to our geopolitical connectivity with Arabic speaking countries; it also contributes to students' work in the interdisciplinary program of Islamic studies and in anthropology, comparative literature, history, linguistics, religion, sociology, and other fields. Study of Arabic language through the third year and study abroad are particularly recommended for students who want to develop proficiency for research or fieldwork. Interested students are urged to begin studying the language early in their academic careers, to have time to develop a useful level of language proficiency and to be prepared to study in an immersive program abroad.
First-, second-, and third-year Arabic are offered every year; first-year Arabic has no prerequisites and is open to everyone except native speakers. Native or heritage speakers of Arabic should consult with the Arabic faculty for placement. Courses in literature in translation, culture, and film are also open to all students. Students of Arabic language are urged to take these courses and others related to the Arab world in Islamic studies, sociology and anthropology, history, political science, and religion to gain perspective on classical and contemporary Arab culture.
Introductory and Intermediate Arabic are intensive courses that carry 1.5 credits per semester. Study abroad is particularly encouraged for students of Arabic; academic credit (full or partial) is generally approved for participation in programs recommended by the Arabic section. These include, but are not limited to universities and nonuniversity programs in Egypt, Jordan, Lebanon, Morocco, Oman, and Tunisia.
Courses in Arabic Language, Literature, and Culture
As a Tri-College language program, Arabic is offered at the first- and second-year level at Swarthmore, Bryn Mawr, and Haverford Colleges. Third-year Arabic language, other advanced language courses, and introductory courses in Arabic literature and culture are offered at Swarthmore. Other courses are available at the

University of Pennsylvania and elsewhere in the Philadelphia area.

## The Academic Program

Coursework in Arabic can be part of a special major or a special honors major, as well as part of a major or minor in comparative literature.
Arabic is a central component of Swarthmore's Islamic Studies program, an interdisciplinary program that focuses on the diverse range of lived experiences and textual traditions of Muslims as they are articulated in various countries and regions throughout the world.
Arabic is also a valuable addition to programs in Humanities and the Social Sciences and can be part of the major in Languages and Linguistics, through the Linguistics Department.

## Special Major

Students may arrange to do a special major or an honors special major in Arabic after consultation with faculty in Arabic and the department chair. Work abroad will be incorporated when appropriate.

## Application Process for the Major

Applicants for a Special Major in Arabic must consult with the Arabic section head and be approved by the relevant faculty members and the department of Modern Languages and Literatures.

## International Baccalaureate Credit

Students presenting IB credit in Arabic language or literature should consult with the faculty in Arabic.

## Transfer Credit

The Arabic faculty will assist students in estimating credit for study of Arabic language and related topics abroad. Transfer credit (from study abroad or from courses taken at other institutions in North America) will be evaluated after students return to campus. Students should consult with the faculty in Arabic to estimate credit before studying abroad.

## Off-Campus Study

Study abroad is crucial to gaining proficiency in Arabic because it allows immersion and significant cultural exposure. Studying Arabic in an environment where it is widely spoken exposes the student to natural language use outside the classroom. Modern Standard Arabic is the official or co-official language of Algeria, Bahrain, Chad, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian West Bank and Gaza, Qatar, Somalia, Sudan, Syria, Tunisia, Mauritania, United Arab Emirates, and Yemen. Large numbers of Arabic speakers also live in Iran
and France (about 600,000 speakers each), and Turkey (about one million) Students are urged to consult closely with the faculty in Arabic as well as the Off-Campus Study Office in planning study abroad.

## Research and Service-Learning Opportunities

## Academic Year Opportunities

Some study abroad programs can arrange internships or other kinds of special opportunities for students.
Summer Opportunities
Like other programs in the Humanities, Arabic welcomes student proposals for guided summer research and will advise students applying for a Humanities Research Fellowship at the College.

## Life After Swarthmore

Career possibilities that utilize foreign language skills parallel the opportunities of liberal arts graduates in general, with a strong focus on international or multicultural aspects. Obvious career paths for Arabic Special Majors are the professions in which foreign language is a primary skill-language teaching, academia, translation and interpretation, or working with nongovernmental organizations (NGOs). But as communication, travel, and business endeavors have expanded in the global marketplace, now even relatively small organizations may need to communicate with partners, clients, or customers in other languages, in the U.S. as well as in other countries.

## Courses

ARAB 001-002. Intensive Elementary

## Modern Standard Arabic

Students who start in the 001-002 sequence must complete 002 to receive credit for 001.
The purpose of this course is to develop students' proficiency and communication in modern standard Arabic in the four basic language skills: listening, speaking, reading (both oral and for comprehension), and writing. Cultural aspects are built into the course. These courses, as well as subsequent Arabic-language courses, help students to advance rapidly in the language and prepare them for more advanced work in literary Arabic, as well for employment, travel, or study abroad. By the end of this sequence, the majority of students are expected to reach a level of intermediate low, according to the ACTFL proficiency rating.

## ARAB 001.

1.5 credits.

Fall 2014. Smith, Muhamed.

## ARAB 002.

1.5 credits.

Spring 2015. Smith, Muhamed.

## ARAB 003. Intermediate Modern Standard

## Arabic I

This course builds on skills in comprehension, listening, reading, writing, and speaking developed at earlier levels. Students will gain increased vocabulary and understanding of more complex grammatical structures. They will begin to approach prose, fiction, and non-fiction written in the language. Students will also increase their proficiency in the Arabic script and sound system, and widen their cultural and historic knowledge of the Arab World and the modern Middle East. 1.5 credits.

Fall 2014. Al-Masri, Muhamed.

## ARAB 004. Intermediate Modern Standard

 Arabic IIThis course is a continuation of ARAB 003.
Because the material covered in this course relies heavily on the previous course, students are expected to review and be familiar with the previous work in Arab 001, 002 and 003.
Eligible for ISLM credit.
1.5 credits.

Prerequisites: ARAB 003 or equivalent or permission of the department.
Spring 2015. Staff, Muhamed.
ARAB 011. Advanced Arabic I
This course will: (1) conduct a quick review of the basic structures, grammar, and vocabulary learned in earlier courses, (2) introduce new vocabulary in a variety of contexts with strong cultural content,
(3) drill students in the more advanced grammatical structures of MSA, and (4) train students reading skills that will assist them in comprehending a variety of MSA authentic reading passages of various genres from Intermediate to Intermediate High on the ACTFL scale. Prerequisites: Successful completion of ARAB 004 and permission of the instructor.
Eligible for ISLM credit.
1 credit.
Fall 2014. Al-Masri.

## ARAB 011A. Arabic Conversation

A conversation course concentrating on the development of intermediate skills in speaking and listening through the use of texts and multimedia materials in Modern Standard Arabic. The aim of this course is for the student to acquire wellrounded communication skills and socio-cultural competence. The selected materials seek to stimulate students' curiosity with the goal of awakening a strong desire to express themselves in the language. Students are required to read chosen texts (including Internet materials) and prepare
assignments for discussion in class. Moreover, students will write out skits or reports for oral presentation in Arabic before they present them in class. This class is conducted entirely in Arabic.
Prerequisite: For students who have taken or are presently taking ARAB 011 or the equivalent. 0.5 credit.

Fall 2014. Muhamed.

## ARAB 012. Advanced Arabic II

This course is a continuation of ARAB 011 and all previous course in the sequence. This course will begin with a quick review of advanced grammatical structures and vocabulary. Students will continue to encounter a wide range of authentic texts and audiovisual materials to enhance their competency in reading, writing, listening, and speaking, with a special emphasis on vocabulary building.
Prerequisites: Successful completion of ARAB
011 and permission of the instructor.
Eligible for ISLM credit.
1 credit.
Spring 2015. Al-Masri.

## ARAB 012A. Advanced Arabic

 ConversationA conversation course concentrating on the development of intermediate skills in speaking and listening through the use of texts and multimedia materials in Modern Standard Arabic. The aim of this course is for the student to acquire wellrounded communication skills and socio-cultural competence. The selected materials seek to stimulate students' curiosity with the goal of awakening a strong desire to express themselves in the language. Students are required to read chosen texts (including Internet materials) and prepare assignments for discussion in class. This class is conducted entirely in Arabic.
Prerequisite: For students who have taken or are presently taking ARAB 012 or the equivalent. 0.5 credit.

Spring 2015. Muhamed.

## ARAB 021. Introduction to Modern Arab

 LiteratureThis course surveys the major writers, trends, themes, and experiences in Arabic literature from the 19 th century to the present. Beginning with the nahda (the Arab renaissance), we will explore the impact of intellectual debates and developments on the emergence of modern Arabic literature. Through the study of a variety of different texts and authors, from a range of geographies and periods, we will investigate diverse literary and cultural narratives. Common themes, such as the negotiation of modernity and tradition, social and political transformation, and the changing role of women, will provide a structure for comparison.

This course is taught in Arabic. Eligible for ISLM credit.
1 credit.
Fall 2014. Al-Masri.

## ARAB 022. Discourses of Oppression in

## Contemporary Arabic Fiction

Designed to meet the needs of students who have completed ARAB 021: Introduction to Modern Arabic Literature, this course provides an in-depth look at major fictional representations of the institutionalized and non-institutionalized sites and structures of oppression explored by Arab writers. Subtle and overt forms of political oppression are investigated, as well as experiences of hegemony related to gender, sexuality, class, religion, and ethnicity. This course also examines the ways in which oppression is rethought, restructured, and challenged in Arabic fiction, leading to new understandings and possibilities in reality. This course is conducted entirely in Arabic. Eligible for ISML credit.
1 credit.
Not offered 2014-2015.

## ARAB 025. War in Arab Literature and

 Cinema(Cross-listed as LITR 025A)
This course will explore literary and cinematic representations of war in the Arab world, focusing on the Arab-Israeli Conflict, the Lebanese Civil War, and the Iraq wars. We will look at poetry, fiction, memoir, prison narratives, film, and experimental texts. Through the examination of a variety of experiences, genres, and perspectives, we will ask questions like: How do narratives of war contribute to the formation of national, local, and Arab identities? How has the experience of war impacted understandings of religion, masculinity, gender, and domestic violence? We will identify common themes and images and investigate how these patterns change and develop in different spatial and temporal contexts.
Eligible for ISLM and PEAC credit. 1 credit.
Not offered 2014-2015.
ARAB 029. Arabs Write the West
(Cross-listed as LITR 029A)
Drawing on historical, fictional, and autobiographical narratives, this course investigates Arab representations of the Occident. These texts explore cultural encounters, both at home and abroad, border crossings, hybridity, experiences of colonialism and neocolonialism, the psychology of Orientalism and Occidentalism, processes of assimilation and resistance, and the question of contact zones. Differences in geography, period, context, and positionality will provide a variety of perspectives on the theme. Works by Abd Al-Rahman Al-Jabarti, Rifa‘a Al-

Tahtawi, Yahya Haqqi, Sulaiman Fayyad, Tayyib Salih, Leila Ahmed, and Fadia Faqir will be discussed. This course is taught in English. Eligible for ISML credit.
1 credit.
Spring 2015. Al-Masri

## ARAB 030. Literature of Resistance

 (Cross-listed as LITR 030A)This course explores Arabic texts that take a stand against contemporary political, social, or economic realities. Fiction and non-fiction accounts as well as poetry will be investigated alongside experimental contemporary genres and blogs to uncover the different ways in which Arabs are attempting to rewrite the world around them. The theme of resistance - against colonialism, state oppression, social codes, and literary norms - will shape our discussions. New narratives inspired by the Arab uprisings will receive special focus. This course is taught in English.
Eligible for ISLM or PEAC credit.
1 credit.
Fall 2014. Smith.

## ARAB 045. Contemporary Thought in the

 Arab World(Cross-listed as LITR 045A)
This survey course will trace some of the main themes, problems and issues that have been debated among Arab thinkers and intellectuals since the latter part of the 19th century. The course will start with the 19th century but emphasize discussions following the military defeat of 1967 and the ensuing cultural and political crisis. Discussions related to "turath" (heritage), the different strategies of its reading and interpretation, and the possibilities of using these readings to confront contemporary challenges will be the center of attention of the course. Readings will comprise three types of texts: those providing historical and social background, translations by the different thinkers under discussion, and articles and essays that interpret and critique these thinkers.
Eligible for ISLM credit.
1 credit.
Not offered 2014-2015.

## ARAB 093. Directed Reading

Al-Masri.

## Chinese

## The Academic Program

Students may major or minor in Chinese in both the Course and Honors Programs. The Chinese major contains components of language, literature and culture. Study abroad is strongly encouraged and supported, and contributes directly to a major or minor in Chinese. Students of Chinese also may
choose a special major in interdisciplinary Chinese studies (see below), or a major in Asian studies (see under Asian studies), where Chinese language courses above the first-year level as well as Chinese literature and culture courses and credit for study abroad normally may be counted toward the major.
Students interested in majoring or minoring in Chinese should consult with the section head of Chinese as soon as possible.
First- through fourth-year Chinese language courses are offered each year, as is an introductory course on reading Classical Chinese. First-year Chinese and the Introduction to Classical Chinese have no prerequisites and are open to the entire student community. Literature, culture, and film courses in translation also are offered each year and are open to all students. Students of Chinese are particularly urged to take these classes as a means of gaining perspective on traditional and modern Chinese literature and culture over more than two millennia, from early times into the contemporary. Seminars welcome students not majoring or minoring in Chinese, with permission of the instructor.
Introductory and intermediate Chinese language courses are intensive and carry 1.5 credits per semester. Students should plan to take these courses as early as possible so that studying in China can be incorporated into their curriculum.

## Course Major in Chinese

1. A minimum of nine credits in courses numbered 003B and above.
2. Mandatory completion of the following courses: $020,021,033$ or equivalent; at least one course or seminar on modern Chinese literature/film in translation, and at least one course or seminar on pre-modern literature/culture in translation.
3. Study abroad in a program approved by the section is strongly recommended; transferred credits normally may be counted toward the major. 4. A minimum of six credits of work must be completed at Swarthmore.
4. A culminating exercise, honors seminar, or thesis.
5. Senior Colloquium.

## Course Minor in Chinese

1. A minimum of five credits of work in courses numbered 004B and above.
2. At least two credits in Chinese language courses numbered 004B and above.
3. At least two credits in classical or modern literature/culture/film.
4. A minimum of three credits of work must be completed at Swarthmore.
5. Study abroad in a program approved by the section is strongly recommended; transferred credits normally may be counted toward the minor.
6. Senior Colloquium.

## Honors Major in Chinese

Requirements for the honors major in Chinese essentially are the same as those for the course major, excepting the culminating exercise. An honors major in Chinese will consist of examinations in Chinese language, literature and culture. Work done abroad may be incorporated, where appropriate. Honors preparations in Chinese consist of 2-credit seminar; designated pairs of courses (or 1-credit attachment to designated 1credit course); or a 2-credit thesis. Senior honors study is mandatory and normally is done in the spring semester of the senior year. Work is arranged on an individual basis, and candidates may receive up to one credit for completion of the work. Honors examinations normally will consist of three 3-hour written examinations and a 30minute oral for each examination.
Honors students of Chinese may also consider a special major in interdisciplinary Chinese studies that is coordinated by the section head of Chinese, or an honors major in Asian studies (see under Asian studies).

## Honors Minor in Chinese

It is possible to prepare for an honors minor in Chinese in either Chinese language or in Chinese literature in translation. Requirements for the honors minor in Chinese essentially are the same as those for the course minor. The honors preparation will consist of a 2 -credit seminar, or a designated pair of courses (or a 1-credit attachment to a designated 1 -credit course). Senior honors study is mandatory and normally is done in the spring semester of the senior year; work is arranged on an individual basis, and candidates will have the option of receiving 0.5 credit for completion of the work. The Honors examination normally will consist of one 3-hour written examination and a 30-minute oral examination.
Students of Chinese may also consider an honors minor in Asian studies (see under Asian studies).

## Special Major in Interdisciplinary Chinese Studies Chinese Studies

1. A minimum of 10 credits in courses numbered 003B and higher.
2. Must complete the following courses: 012 or higher, at least three additional courses on language/literature/culture/film, at least one of these concerning the modern period and at least one concerning the pre-modern period.
3. Study abroad in a program approved by the section is strongly recommended; transferred credits normally may be counted toward the major.
4. A minimum of six credits of work must be completed at Swarthmore.
5. At least one and up to three credits can be earned from other departments on China-related subjects with the approval of the Chinese section. 6. A culminating exercise, honors seminar or thesis.
6. Senior Colloquium.

## Off-Campus Study

Study abroad is particularly encouraged for students of Chinese; academic credit (full or partial) is generally approved for participation in several recommended programs of varying duration in the People's Republic of China and in Taiwan. In the People's Republic, these include, but are not limited to, the Inter-University Program (IUP) Program at Tsing-hua University, the Associated Colleges in China (ACC) Program, the CET Program in Harbin, and the Middlebury program in Kunming. In Taiwan, these include the International Chinese Language Program (ICLP), the Mandarin Training Center in Taipei, and the Chinese Language Center, National Cheng Kung University in Taiwan.

## Courses

CHIN 001B-002B. Introduction to Mandarin Chinese
Students who start in the 00IB-002B sequence must complete 002B to receive credit for 001B.
An intensive introduction to spoken and written Mandarin Chinese, with emphasis on oral Chinese practice. Designed to impart an active command of basic grammar. Introduces 350 to 400 characters and develops the ability to read and write in simple modern Chinese.
1.5 credits.

CHIN 001B.
Fall 2014. Speidel, Kang.
CHIN 002B.
Spring 2015. Speidel, Kang.

## CHIN 003B, 004B. Second-Year Mandarin

 ChineseDesigned for students who have mastered basic grammar and 350 to 400 characters. Combines intensive oral practice with writing and reading in the modern language. Emphasis is on rapid expansion of vocabulary, idiomatic expressions, and thorough understanding of grammatical patterns. Prepares students for advanced study at the College and in China.
1.5 credits.

## CHIN 003B.

Fall 2014. Ma, Chiu.

## CHIN 004B.

Spring 2015. Ma, Chiu.

## CHIN 005. Chinese for Advanced Beginners I

Designed for students of Chinese heritage who are able to communicate in Chinese on simple daily life topics and perhaps read Chinese with a limited vocabulary (about 100 characters). An intensive introduction to spoken and written Mandarin Chinese, with emphasis on the development of reading and writing ability. Prepares students for advanced studies at the College and in China. Prerequisite: Permission of the instructor.
1 credit.
Fall 2014. Chiu.

## CHIN 006. Chinese for Advanced Beginners II

Designed for students of Chinese heritage who are able to communicate in Chinese with a command of basic grammar and a vocabulary (about 800 characters). An intensive introduction at the intermediate level to Mandarin Chinese, with emphasis on the development of reading and writing ability. Prepares students for advanced studies at the College and in China.
Prerequisite: CHIN 005, or CHIN 002B, or equivalent language skills.
1 credit.
Spring 2015. Chiu.
CHIN 007. ChineselJapanese Calligraphy
(Cross-listed as JPNS 007)
Calligraphy is the art of beautiful handwriting.
This course will introduce students to the importance of calligraphy in East Asian Culture. In addition to being a valuable cultural skill, calligraphy is also a process of self-cultivation and self-expression, which reflects the mind-set of the writer. Thus, students will have the opportunity to learn Chinese/Japanese characters not only as linguistic symbols but also as cultural emblems and as an art form. Course objectives include learning to appreciate the beauty of
Chinese/Japanese calligraphy, experiencing calligraphy by writing with a brush and ink, and studying various philosophies of calligraphy. In addition to learning several different calligraphic scripts, students will be introduced to the origin, evolution, and aesthetic principles of the Chinese and Japanese writing systems, as well as calligraphy's close connections with painting and poetry. Persistent hands-on practice will be required of all students; course work will include in-class practice, individual/group instruction, reading assignments, and take-home assignments. This class is open to all students and has no language requirement. Due to the course's
practicum component, enrollment will be limited by lottery to 10 students. The course can be repeated for credit.
0.5 credit.

Spring 2015. Jo.
CHIN 009. First-Year Seminar: Heaven, Earth, and Man: Ways of Thought in

## Traditional Chinese Culture

(Cross-listed as LITR 009CH)
This introductory course explores the most influential currents of thought and culture in traditional China, through directed readings and discussions of original sources in translation.
1 credit.
Not offered 2014-2015.

## CHIN 011. Third-Year Chinese

Concentrates on strengthening and further developing skills in reading, speaking, and writing modern Chinese, through a diversity of materials and media.
Classes are conducted in Chinese, with precise translation also a component.
Prerequisite: CHIN 004B or equivalent language skills.
1 credit.
Fall 2014. Ma.

## CHIN 011A. Third-Year Chinese

## Conversation

This course meets once a week for 75 minutes and concentrates on the further development of skills in speaking and listening through multimedia materials (including selected movies and clips). Students are required to read chosen texts (including Internet materials and short stories) and prepare assignments for the purpose of generating discussion in class. Moreover, students will write out skits or reports for oral presentation in Chinese before they present them in class. The class is conducted entirely in Chinese.
Prerequisite: CHIN 004B or equivalent language skills.
0.5 credit.

Fall 2014. Kang.

## CHIN 012. Advanced Chinese

A multimedia course concentrating on greatly expanding skills in understanding and using modern Chinese in a broad variety of cultural and literary contexts, through a diversity of authentic materials in various media, including the Internet.
Prerequisite: CHIN 011 or equivalent language
skills.
1 credit.
Spring 2015. Ma.

## CHIN 012A. Advanced Chinese

Conversation

This 0.5 -credit course meets once a week for 75 minutes and concentrates on the further development of skills in speaking and listening through multimedia materials (including movies and clips). Students are required to read chosen texts (including Internet materials and short stories) and prepare assignments for the purpose of generating discussion in class. Moreover, students will write out skits or reports for oral presentation in Chinese before they present them in class.
The class is conducted entirely in Chinese.
Prerequisite: CHIN 011 and/or 011A or equivalent language skills.
0.5 credit.

Spring 2015. Kang.

## CHIN 013A. Foreign Language Teaching

 and Pedagogy(Cross-listed as EDUC 072)
This course has two elements that are developed together throughout the course of the semester. Students can serve the Swarthmore community by teaching a foreign language to local elementary school students in an after-school program that meets two times/week. Students must teach for the entire 6 -week session, two days per week. During the evening pedagogy sessions held on campus, we will discuss writing weekly lesson plans, foreign language acquisition in children, teaching methodologies and approaches. We use a common goal-oriented curriculum among all the languages. Students must register for the language or educational studies course that they will be teaching and for a service time (A) M/W or (B) T/Th.
0.5 credit.

Not offered 2014-2015.

## CHIN 016. Substance, Shadow, and Spirit

 in Chinese Literature and Culture(Cross-listed as LITR 016CH)
This course will explore the literary and intellectual world of traditional Chinese culture through original writings in English translation, including both poetry and prose. Topics to be discussed include Taoism, Confucianism, and the contouring of Chinese culture; immortality, wine, and allaying the mundane; and the religious dimension, disengagement, and the appreciation of the natural world. The course also will address cultural and literary formulations of conduct and persona, and the expression of individualism in an authoritarian society.
1 credit.
Spring 2015. Berkowitz.

## CHIN 020. Readings in Modern Chinese

This course aims to perfect the student's Mandarin Chinese skills and at the same time to introduce a few major topics concerning Chinese literature and other types of writing since the May Fourth

Movement. All readings, writing, and discussion are in Chinese.
Prerequisite: Three years of Chinese or the equivalent.
1 credit.
Fall 2014. Ma.
CHIN 021. Topics in Modern Chinese
Reading and examination of individual authors, selected themes, genres, and periods, for students with strong Chinese-language proficiency. All readings, writings, and discussions are in Chinese. Prerequisite: CHIN 020 or its equivalent. Writing course.
1 credit.
Spring 2015. Ma.

## CHIN 023. Modern Chinese Literature: A

 New Novelistic Discourse (1918-1948)
## (Cross-listed as LITR 023CH)

Modern Chinese literary texts created between 1918 and 1948, presenting a series of political, social, cultural, and ideological dilemmas underlying 20th-century Chinese history. The class will discuss fundamental issues of modernity and new literary developments under the impact of the May Fourth Movement. All texts are in English translation, and the class is conducted in English. 1 credit.
Not offered 2014-2015.
CHIN 027. The Story in Dynastic China (Cross-listed as LITR 027CH)
In this class we will read in translation and discuss a fair sampling of imperial China's most renowned stories. In exploring the most celebrated and influential examples of narrative literature from early times into the Qing dynasty, we will look at these stories, some short, others quite elaborate, in terms of overt structure and content, as well as backgrounded literary and cultural material, and we will address their production and consumption in literati and popular contexts. We also will consider these writings in terms of the formulation of enduring cultural contours of character, allegory, and lyricism; individual and society; aesthetics and emotion; imagination and realism; heroism and valor. All readings will be in English, mostly translations of original texts, with some supplementary writings about traditional Chinese fiction.
1 credit.
Fall 2014. Berkowitz.

## CHIN 033. Introduction to Classical

## Chinese

(Cross-listed as LING 033)
This is an introductory course on reading one of the world's great classical languages. Classical Chinese includes both the language of China's classical literature as well as the literary language
used for writing in China for well over 2 millennia until earlier this century. Complemented with readings in English about Chinese characters and classical Chinese, this course imparts the principal structures of the classical language through an analytical presentation of the rudiments of the language and close reading of original texts. It is not a lecture course and requires active, regular participation on the part of the student, with precise translation into English an integral component. The course is conducted in English. The course is open to all interested students and has no prerequisites; no previous preparation in Chinese is required.
1 credit.
Spring 2015. Berkowitz.

## CHIN 035. Readings in Classical Chinese

In this class, we will read some fantastic, enduring writings from Classical China, all in the original.
Readings will cover many genres, including stories, biographies, history, philosophy, and poetry, and will range over the centuries of ancient and imperial China.
Prerequisite: one semester of classical Chinese or permission of the instructor.
1 credit.
Not offered 2014-2015.
CHIN 055. Contemporary Chinese Cinema: The New Waves (1984-2005)
(Cross-listed as LITR 055CH/FMST 055)
Cinema has become a special form of cultural mirror representing social dynamics and drastic changes in mainland China, Hong Kong, and Taiwan since the mid-1980s. The course will develop a better understanding of changing Chinese culture by analyzing cinematic texts and the new wave in the era of globalization. All films are English subtitled, and the class is conducted in English.
1 credit.
Fall 2014. Kong.
CHIN 069. The Art of Living: Taste and Aesthetics in Chinese Cultural Traditions
(Cross-listed as LITR 069CH)
This course will explore various dimensions of taste and aesthetics in traditional Chinese culture-from the earliest times into the recent past. Broader aspects of the course will include concept, form, and substance in classical literary, and philosophical formulations; ritual practice and ceremonial performance; and continuities and disjunctures in private vs. public and individual vs. societal taste. More focused readings and discussions will concern food, alcohol, tea, and the culinary arts; appreciation, aesthetics, and poetics in music, painting, calligraphy, literature,
sculpture, and theater; the harmony of the human body and the evaluation of beauty and suitability
in men and women; landscape appreciation and visions of the natural world; leisure and the passa tempo pursuits of Go, flower and tree arrangement, and elegant gatherings.
No prerequisites, no knowledge of Chinese
required; all readings in English.
Eligible for ASIA credit.
1 credit.
Spring 2015. Berkowitz.
CHIN 081. Transcending the Mundane: Taoism in Chinese Literature and Culture (Cross-listed as LITR 081CH)
Chinese civilization has been imbued with Taoism for some 2.5 millennia, from popular belief and custom to intellectual and literary culture. In addition to consideration of the texts and contexts of both philosophical and religious Taoism, the class will examine the articulation and role of Taoism in Chinese literature and culture and the enduring implications of the Taoist ethos. All readings will be in English.
Prerequisite: One introductory course on Chinese culture or religion or permission of the instructor. 1 credit.
Not offered 2014-2015.

## CHIN 090. Practicum in Bridging

## Swarthmore and Local Chinese

## Communities

Students will engage in directed projects in local Chinese communities under the supervision of the instructor. The projects will concern tutoring and translation or other social services within the immigrant groups. Fieldwork will be tied to theoretical and applied academic learning and will foster intercultural understanding and intellectual growth. A final written project will be required for credit. Speakers of any Chinese language/dialects are particularly welcome, as are students of Chinese language and others who wish to develop their interest in this area. Credit is awarded CR/NC.
1 credit.
Not offered 2014-2015.

## CHIN 091. Special Topics in Chinese

Literature and Culture in Translation:
Dancing Across Borders; the Body,
Aesthetics and Ideologies in 20th-Century China
(Cross-listed as LITR 091CH)
This course uses dance as a unique artistic and theoretical prism to analyze the complex interplay among the body, aesthetics, and ideologies in 20th-century China. The goal of the course is to familiarize the students with the transnational and transcultural context within which modern dance was first introduced into China from the West via Japan, and to show the students how to situate the evolving trajectory of dance in China in the power
struggles among competing political agendas, aesthetics, ideologies, and art forms. This course teaches the basic methods to read, reconstruct, and analyze dance works. The reading materials are all in English.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.
CHIN 092. Special Topics in Chinese
Literature and Culture in Chinese
This course will concentrate on selected themes, genres, or critical problems in Chinese literature. All readings are in Chinese.
Prerequisite: Four years of Chinese or the equivalent.
1 credit.
Not offered 2014-2015.

## CHIN 093. Directed Reading

CHIN 096. Thesis
CHIN 099. Senior Colloquium
0.5 or 1.0 credit.

Spring 2015.

## Seminars

CHIN 103. Lu Xun and His Legacy in 20th-
Century China
This seminar is focused on topics concerning modernity, political/social change, gender, and morality through close examination of intellectuals' responses to the chaotic era reflected in their literature writings in 20th-century China. Literary forms, styles, and changing aesthetic principles are also included for discussion.
Literary texts, chosen from Lu Xun to Gao Xingjian, will be analyzed in a social and historical context. All texts are in English translation, and the seminar is conducted in English.
2 credits.
Not offered 2014-2015.

## CHIN 104. Chinese Poetry

This seminar will explore Chinese poetry throughout ancient and imperial China. We will read and discuss a good many of the most renowned poems and poets, and trace the immutable role of poetry in Chinese traditional culture. We will learn how to read a Chinese poem, investigate predominant styles and genres, and trace texts and writers in context. And we will follow the development and significance of themes and imagery, examine the formulation of a literary aesthetics, and savor the telling of stories and the expression of feeling and philosophy through the medium of poetry. Readings will be in English, with many poems also explicated through the original Chinese. No knowledge of Chinese is
required, but previous background in some aspect of Chinese literature, history, and culture will be helpful.
2 credits.
Fall 2014. Berkowitz.
CHIN 105. Fiction in Traditional China: People and Places, Journeys, and Romances
In this seminar, we will explore the most celebrated and influential examples of novelistic literature in traditional, pre-modern China. We will look at these extended, elaborate writings in terms of overt structure and content as well as backgrounded literary and cultural material, and we will address their production and consumption in literati and popular contexts. We also will consider these writings in terms of the formulation of enduring cultural contours of allegory and lyricism, individual and society, aesthetics and emotion, imagination and realism, heroism and valor.
All readings will be in English translation.
2 credits.
Not offered 2014-2015.

## CHIN 106. Seminar in Traditional Chinese

 Literature2 credits.
Not offered 2014-2015.
CHIN 108. The Remaking of Cinematic China: Zhang Yimou, Wong Kar-wai, and Ang Lee
The seminar focuses on three leading filmmakers, Zhang Yimou, Wong Kar-wai, and Ang Lee, and their cinematic products, which have not only won international praises but also fundamentally reconstructed the national cinemas. We will explore their impact on the formation of the new wave of Chinese-language cinemas since the mid1980s and its recent new developments by examining all possible aspects in the context of social and cultural change.
2 credits.
Spring 2015. Kong.

## CHIN 109. Daoism

This seminar will look at the texts and contexts of both philosophical and religious Daoism, from intellectual and literary culture to popular belief and custom. It will explore the ways of Daoism from early into modern times: texts and contexts; sectarian religion and individual praxis; cultural taproot and personal mindset; cosmology and alchemy; gods, saints, priests, and recluses; aesthetics and the arts.
All readings will be in English.
Eligible for ASIA credit.
2 credits.
Not offered 2014-2015.

## MLL: French and Francophone Studies

## CHIN 110. Beijing and Shanghai: Tale of

## Two Cities

This seminar focuses on the culture and urban history of China's two major cities: Beijing-the capital of both imperial and post-1949 China-and Shanghai-one of the earliest treaty ports open to the West and the center of today's Chinese economy. Through comparative analyses of urban planning, fiction about, and film of the two cities, we will examine the significance of these two distinct yet connected urban cultures in modern and contemporary China. The students are encouraged to develop a research project comparing the two cities, using either Chinese or English-language sources. This course is open to all students above the first year who have finished previous coursework in Chinese literature, film, art, urban studies or history, or have permission of the instructor. The required course readings and all discussions will be in English.
Eligible for ASIA credit.
2 credits.
Not offered 2014-2015.
CHIN 199. Senior Honors Study

## Chinese Courses Not Currently Offered

CHIN 008. First-Year Seminar: Literary and Cinematic Presentation of Modern China (Crosslisted as LITR 008 CH )
CHIN 009. First-Year Seminar: Heaven, Earth, and Man: Ways of Thought in Traditional Chinese Culture (Cross-listed as LITR 009CH)
CHIN 018. The Classical Tradition in Chinese Literature (Cross-listed as LITR 018CH)
CHIN 019. First-Year Seminar: Singular Lives and Cultural Paradigms in Early and Imperial China (Cross-listed as LITR 019CH)
CHIN 025. Contemporary Chinese Fiction: Mirror of Social Change (1949-2005) (Cross-listed as LITR 025CH)
CHIN 027. Women Writers in 20th-Century China (Cross-listed as LITR 027CH)
CHIN 056. History of Chinese Cinema (19052005) (Cross-listed as LITR 056CH)

CHIN 063. Comparative Perspectives: China in the Ancient World (Cross-listed as LITR 063CH)
CHIN 066. Chinese Poetry (Cross-listed as LITR 066CH)
CHIN 071. Invaded Ideology and Translated Modernity: A Comparative Study of Modern Chinese and Japanese Literatures at Their Formative Stages (1900-1937) (Cross-listed as LITR 071CH)

## French and Francophone Studies

In French and Francophone Studies, you will learn French and acquire global competence in the

Francophone world. Students are introduced to contemporary France and a variety of countries such as Algeria and Senegal. They can expand their knowledge of the diversity of Frenchspeaking cultures by developing an appreciation of literary value and filmic expression. Our courses also pay careful attention to the major social and political developments that have shaped France, and its former colonies, thus providing an opportunity to understand the forces underlying these various cultures, literatures, and films. Students in our program explore interests as diverse as critical theory, film studies, gender studies, postcolonial studies, or the Islamic world, and work directly with primary sources in their original language.

## The Academic Program

French and francophone studies is offered as a major or minor in the Course Program and as a major or minor in honors. The prerequisite to take upper-level courses (numbered 20 and higher) for both course and honors students is FREN 014 or 015 , the equivalent, or evidence of special competence.
All French and francophone studies majors and minors, including students preparing a secondary school certificate, are required to complete a study abroad program in a French-speaking country. Majors and minors in the Course and Honors Programs are expected to be proficient in spoken and written French to do the larger part of their work in French, i.e., discussions and papers in courses and seminars and all oral and written examinations, including oral defense of the senior paper and Honors examinations.

## Course Major

## Requirements

1. Take eight advanced courses or seminars numbered 014 or above for a minimum of 8 credits. Note that AP, IB credits will not count toward the major. FREN 016 can only count once to fulfill the major credit requirement.
2. Off-campus study is required for all majors. Students who participate in preapproved programs may only count 3 credits toward their major. See the "Off-Campus Study" section for rules on transfer of credit.
3. Take one advanced course with a Francophone component.
4. Take Senior Colloquium (FREN 091) in the senior year. This includes the writing of an original, independent research paper of 30 pages on a topic chosen in discussion with the senior colloquium professor and adviser or one other professor in the program. The defense of the paper with the entire French and Francophone faculty takes place at the end of the fall semester.

## MLL: French and Francophone Studies

French and Francophone Studies also offers courses in French literature in translation, but no more than one such course may count to satisfy the requirements in the major.
To graduate with a major in French and
Francophone studies, students must have a grade average of C or better within the discipline, have studied in a French-speaking country, and have completed our culminating exercise, described above.

## Acceptance Criteria

To be accepted as a course major, students must have taken French 014 or the equivalent, earning grades no less than a C.

## Course Minor

## Requirements

1. Complete 5 credits in courses or seminars numbered 014 or above. Three or four of these credits must be completed on the Swarthmore campus (See \#2 below). Note that AP and IB credits will not count toward the minor. FREN 016 can only count once to fulfill the minor credit requirement.
2. Minors are strongly encouraged to complete at least a six-week summer program of study in a French-speaking country. Students who participate in preapproved programs may only count two credits toward their minor. See the study abroad section for rules on transfer of credit.
3. Complete Senior Colloquium (FREN 091) in the senior year, which includes the writing of an original, independent research paper of 20 pages on a topic chosen in discussion with the senior colloquium professor.
French and Francophone studies also offers courses in French literature in translation, but no more than one such course may count to satisfy the requirements in the minor.
To graduate with a minor in French and Francophone studies, you must have a grade average of C or better within the discipline, studied in French-speaking country, and have completed FREN 091 Senior Colloquium.

## Acceptance Criteria

To be accepted as a course minor, you must have taken French 014 or the equivalent, earning grades no less than a C.

## Honors Major

## Requirements

Majors in the Honors Program are expected to complete the requirements of majors in course, including taking Senior Colloquium (FREN 091) in the senior year.

1. Take eight advanced courses or seminars numbered 014 or above for a minimum of 8 credits. Note that AP and IB credits will not count
toward the honors major. FREN 016 can only count once to fulfill the honors major credit requirement.
2. Study abroad in a francophone country, for one semester is required for all honors majors. See the study abroad section for rules on transfer of credit.
3. Take one advanced course with a Francophone component.
4. Take Senior Colloquium (FREN 091) in the senior year. This includes the writing of an original, independent research paper of 30 pages on a topic chosen in discussion with the senior colloquium professor and adviser or one other professor in the program. The defense of the paper with the entire French and Francophone faculty takes place at the end of the fall semester. Complete at least one advanced course (above FREN 015) before taking a seminar.
Work on three preparations, two of which must be done through seminars while the third may be a seminar, a two-credit thesis, or an approved paired course preparation.
French and Francophone Studies also offers courses in French literature in translation but no more than one such course may count to satisfy the requirements in the honors major.

## The Honors Exam for Majors and

 PreparationsMajors in the Honors Program must do three preparations (consisting of six units of credit). Two of the preparations must be done through seminars chosen from the list below. The third preparation may be a seminar, a two-credit thesis, or an approved paired course preparation.

## Mode of Examination:

A three-hour written examination, and a one-half hour oral examination, both in French, will be required for each preparation.

## Acceptance Criteria

Candidates are expected to have a " B " average in course work both in the department and at the College, have taken FREN 004 or the equivalent, and have demonstrated interest in and aptitude for the study of literature or culture in the original language.

## Honors Minor

## Requirements

Minors in the Honors Program are expected to complete the requirements of minors in course, including taking Senior Colloquium (FREN 091) in the senior year.

1. Complete 5 credits in courses or seminars numbered 014 or above. Three of these credits must be completed on the Swarthmore campus. Note that AP and IB credits will not count toward the minor. FREN 016 can only count once to fulfill the minor credit requirement.

## MLL: French and Francophone Studies

2. Complete at least a six-week program of study in a French-speaking country. It is strongly recommended that honors minors spend at least one semester abroad. See the study abroad section for rules on transfer of credit.
3. Complete Senior Colloquium (FREN 091) in the senior year, which includes the writing of an original, independent research paper of 20 pages on a topic chosen in discussion with the senior colloquium professor.
4. Complete at least one advanced course (above FREN 015) before taking a seminar.
5. Work on one two-credit seminar preparation or an approved paired course preparation.
French and Francophone studies also offers courses in French literature in translation but no more than one such course may count to satisfy the requirements in the honors minor.

## The Honors Exam for Minors and Preparations

Minors must do a single, two-credit seminar preparation (consisting of two units of credit) or an approved paired course preparation.

## Mode of Examination

A three-hour written examination, and a one-half hour oral examination, both in French, will be required for the preparation.

## Acceptance Criteria

Candidates are expected to have a " B " average in course work both in the department and at the College, have taken FREN 004 or the equivalent, and have demonstrated interest in and aptitude for the study of literature or culture in the original language.

## Thesis / Culminating Exercise

The culminating exercise in French and Francophone studies consists of completing FREN 091 Senior Colloquium in which you will write an independent research thesis of 20-30 pages and defend it in front of a panel of faculty members.

## Application Process Notes for the Major or the Minor

In addition to the process described by the Dean's Office and the Registrar's Office for how to apply for a major, we also ask that you speak with the French and Francophone Studies section head or one of your professors in French and Francophone Studies to discuss your options.
If after applying you are deferred, you may apply again in the fall by addressing the reasons for your deferral.

## Off-Campus Study

Study abroad programs are vital to the French and Francophone program. Majors may count up to 3 credits toward their French major. Minors may
count 2 of these credits toward their French minor. To receive more than one credit, students must take a 1-credit course in French immediately upon their return. Students should contact a French faculty member to obtain the current list of preapproved programs. Students wishing to seek credit from other disciplines must consult the rules in the appropriate credit-granting department. There are also other options to study abroad available to students who have completed course work above the equivalent of fourth semester.
Any student attending a preapproved program in a non-francophone country, and planning to enroll in a French course there, may petition for one credit upon their return to campus. To earn this credit, students must take a one-credit French course in the semester immediately following their return to campus.

## Preapproved Summer Programs

Any student may study in a preapproved summer program that is at least 6 weeks long and earn 1 credit in MLL (French). Only Minors in French and Francophone studies may have this credit count towards the completion of their course requirements.

## Research and Service-Learning Opportunities

Both independent research and service-learning student-teaching are important ways to continue using your language and critical analysis skills.

## Academic Year Opportunities

Each semester MLL offers a Service-Teaching Pedagogy course in which students teach French to local elementary students after or while completing FREN 014 (or 4th semester course of foreign language equivalent). It offers first-hand experience teaching in the classroom and provides training in classroom management, writing lesson plans, and effective use of communicative method language instruction. Student-teachers share common curricular goals, use a communicative method without a textbook, and teach exclusively in the target language. To enhance the studentteachers' professionalism, this course includes a weekly pedagogy session for help with learning how to prepare lessons with goal-oriented curriculum, teaching practice, debriefing on the weeks' teaching, and discussion of readings about foreign language acquisition, methodologies, and approaches.

## Summer Opportunities

Students are encouraged to use the summer to travel to Francophone countries and explore research for their senior thesis papers. Please speak with French and Francophone studies faculty to find out about options for doing this summer work.

## Teacher Certification

Students may choose to use French and Francophone studies as a specialization in a teacher certification program or for a special major in educational studies. Although students may develop their own course of study, they must complete FREN 015 , or the equivalent, and study abroad for at least one semester in a Frenchspeaking country.

## Life After Swarthmore

Opportunities for a major/minor in French and Francophone studies after graduation are varied. Our curriculum provides students with valuable skills in cultural analysis, communication in another language, and the ability to understand and adapt to cross-cultural situations. Many majors and minors in French and Francophone studies continue their research with Fulbright awards, go to graduate school, law school, and medical school, and follow diverse career paths in teaching, journalism, business, and NGOs. Recent French and Francophone alumni who are Fulbright recipients are continuing their studies in North Africa and the Middle East; those who have gone to graduate school are studying library science, ethnomusicology, French history, public policy, educational policy, and public health. Many alumni are in education, law, business, journalism, medicine, the arts, and international affairs, etc.

## Courses

The following courses are taught in French. For courses on French and Francophone content taught in English, see the section on Literatures in Translation above.
\# = Francophone
FREN 001-002, 003. Intensive French Students who start in the 001-002 sequence must complete 002 to receive credit for 001.
For students who begin French in college. Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, writing, and readings in literary and expository prose. FREN 001 is offered in the fall semester only.
1.5 credits.

FREN 001. Intensive First Year of French Fall 2014. Blanchard, Rice-Maximin, Courgey.

FREN 002. Intensive First Year of French Spring 2015. Gueydan-Turek, Cherel, Courgey.

FREN 003. Intensive Intermediate French FREN 003 is offered in the fall semester only. Fall 2014. Gueydan-Turek, Cherel.

FREN 014. Advanced French: La France et le monde francophone contemporains 1 (W)

Offered each semester, this course gives students the opportunity to develop French language skills through explorations of culture and society in France and the Francophone World. Controverses (textbook) will be used for learning the art of writing in French. Particular attention will be paid to oral communication, grammar review, and writing skills. FREN 003 or placement required. 1 credit.
Fall 2014. Cherel.
Spring 2015. Blanchard.
FREN 015. Advanced French: La France et le monde francophone contemporains 2 Offered each semester, this course gives students the opportunity to further develop French language skills through the study of articles, essays, and images. Engage in reading, discussing, and writing about cultural and visual texts selected from ads, newspapers, literature, television shows, comic strips, videos, and film from France and the Francophone World. Writing skills will be addressed using the second half of Controverses (textbook). Particular attention will be paid to oral and written communication and cultural analysis. FREN 004, FREN 014, or placement required. 1 credit.
Fall 2014. Yervasi.
Spring 2015. Yervasi.

## FREN 016. French Conversation

A 0.5 -credit conversation course concentrating on the development of the students' ability to speak French. May be repeated once for credit with a different instructor, but can only count once to fulfill major/minor credit requirement.
Prerequisite: For students previously in FREN 015 Advanced French 2, or the equivalent Placement Test score.
0.5 credit.

Fall 2014. Gueydan-Turek.
Spring 2015. Cherel.

## FREN 040. Panorama de la Littérature

 françaiseThis course is designed to provide students with a broad knowledge of French literature, from the Renaissance to the present. Among the authors included on the syllabus are: Corneille, Graffigny, Balzac, Proust and Genet. Students will read works in their entirety, discuss their significance in class, and listen to short lectures to situate the readings in a historical and cultural context. 1 credit. Fall 2015. Yervasi.

FREN 024. Foreign Language Teaching and Pedagogy
(Cross-listed as EDUC 072)
This course has two elements that are developed together throughout the course of the semester. Students can serve the Swarthmore community by teaching a foreign language to local elementary school students in an after-school program that meets two times/week. Students must teach for the entire 6 -week session, two days per week. During the evening pedagogy sessions held on campus, we will discuss writing weekly lesson plans, foreign language acquisition in children, teaching methodologies and approaches. We use a common goal-oriented curriculum among all the languages. Students must register for the language or educational studies course that they will be teaching and for a service time (A) M/W or (B) T/Th.
0.5 credit.

Not offered 2014-2015.
FREN 043. Ecrire le Moi/Writing the Self
Reading the texts by authors of various parts of the Francophone world who, through their
confessions, memoirs, autobiographies, autofictions, journals, etc., narrate different moments of their life. We will explore the role of history, social class, language, education, race, colonial past, in the construction of their subjectivity and identity, and will also read their texts as keys to the understanding of the cultures and societies they inhabit. Parallel reading of studies on the various forms of the autobiographical genre will inform us on the writings of authors such as Rousseau, Sartre, Ferraoun, Bouraoui, Nothomb, Genet, Lefevre, Zoble, Condé, Pineau, Maximin, Lahens, Sarraute, Duras. In French.
1 credit.
Fall 2014. Rice-Maximin.
FREN 045C. Le Monde Francophone Spring 2016. Rice-Maximin

## FREN 045D. Le monde francophone :

 African Cinema\#This course is an introduction to the history of Francophone West African cinemas. Students will study the colonial and postcolonial history and culture of this region, be introduced to key film concepts, and develop their ability to do in-depth film analysis. Student must attend weekly screenings.
Eligible for BLST credit.
1 credit.
Spring 2015. Yervasi.
FREN 057. Bande dessinée, nouvelle Manga et romans graphiques
The bande dessinée, the Francophone analog to comics, has evolved alongside contemporary youth culture to become a locus for expressions of
sociocultural and aesthetic changes, as well as antiestablishment discourses. In the context of issues such as social class, cultural diversity, and feminity/masculinity, this course will connect canonical comics (such as Asterix and Tintin) with more current cutting-edge forms including la nouvelle Manga and graphic novels from Rwanda, Algeria, Lebanon and Iran.
1 credit.
Spring 2015. Gueydan-Turek.

## FREN 091. Senior Colloquium:

This course will be dedicated to discussions of the various topics chosen by majors and minors for their senior thesis. Although this course is required of French/Francophone majors and minors, it is open to other advanced students.
Writing course.
1 credit.
Fall 2014. Gueydan-Turek.
Spring 2016. Yervasi.

## FREN 093. Directed Reading

FREN 096. Thesis

## Seminars

FREN 111. Le Désir colonial: représentations de la différence dans l'imaginaire français\#
This course addresses how the colonial encounter has shaped modern perceptions of race, ethnicity, gender, and sexuality through the production, circulation and consumption of deformed images of its colonial subjects. From noble savages and whimpering slaves to hideous monsters and seductive harem girls, we will examine the dynamics of representation embedded in colonial narrations and visual constructions of the "Other," focusing on conceptualizations of power as they relate to race, sexual politics and the gendering of the colonial subject. Primary texts include literature of the slave trade, orientalist fictions and photographs, colonial films, museum exhibitions and world's fairs, and contemporary works of fiction that deal with the legacy and sometimes continue the colonial desire.
Eligible for BLST or GSST credit.
2 credits.
Fall 2016. Gueydan-Turek.
FREN 112. Le Monde comique de Molière This seminar is designed to acquaint students with the major works of Molière and 17th-century culture. We will investigate: Molière's political relationship with Louis XIV at Versailles, the discourse of early modern feminism of the précieuses and the femmes savantes; the critique of religious hypocrisy, and the influence of early modern notions of anthropology, notably medicine, on Molière's notions of selfhood. These

## MLL: French and Francophone Studies

aspects will be brought forward through close attention to the poetics of comedy and the art of the comedian.
2 credits.
Spring 2015. Blanchard.

## FREN 180. Honors Thesis

FREN 199. Senior Honors Study
Courses with a Francophone component are marked with a \#.

## French Courses and Seminars

 Not Currently OfferedFREN 022. Panorama du cinéma français et francophone\#
FREN 044. Tyrants and Revolutionaries
FREN 045A. Le Monde francophone: Postcolonial cities in the Francophone World\#
FREN 046. Poésies d'écritures françaises\#
FREN 054. Cinéma français: jeunesse et résistance
FREN 056. Ces femmes qui écrivent/Reading
French Women
FREN 058. The Representation of Alterity in French Literature and Cinema\#
FREN 104. Le Roman du XIXe siècle
FREN 106. La Modernité
FREN 108. Littérature et cinéma moderne et contemporain: La question de représentation FREN 110. Histoires d'îles\#
FREN 115. Paroles de femmes\#
FREN 116 Théâtre Francophone
LITR 061FJ. Manga, Bande Dessinée, and the
Graphic Novel: A Transnational Study of Graphic Fiction
LITR 071F. French Cultural and Critical Theory
LITR 078F. Francophone Cinema

## German Studies

## Core Faculty

Hansjakob Werlen, Professor ${ }^{3}$
Sunka Simon, Professor
Tessa Wegener, Visiting Assistant Professor
Christopher Schnader, Lecturer

## Affiliated Faculty

Peter Baumann, Professor (Philosophy)
Richard Eldridge, Professor (Philosophy)
Tamsin Lorraine, Professor (Philosophy)
Braulio Muñoz, Professor (Sociology and
Anthropology)
Robert Weinberg, Professor (History)
Thomas Whitman, Associate Professor (Music)
${ }^{3}$ Absent on leave, 2014-2015.
The German Studies Program offers students a wide variety of courses in language, literature, film, and culture taught in German, as well as classes in anthropology and sociology, history, music, philosophy, and political science. Stressing the interrelatedness of linguistic competency and broad cultural literacy, German studies classes cover a wide range of literary periods, intellectual history, and film and visual culture. The diverse approaches to German culture(s) prepare students for graduate work in several academic disciplines, as well as for a variety of international careers. German studies can be pursued as course major or minor or as a major and minor in the Honors Program.
Majors are expected to be sufficiently proficient in German when they graduate. To this end, we strongly advise students to spend an academic semester-preferably spring semester-in a German-speaking country before their senior year.

## The Academic Program

Not all advanced courses or seminars are offered every year. Students wishing to major or minor in German studies should plan their program in consultation with the program coordinator. All German courses numbered 50 and above are open to students after GMST 008 or 020. Seminars in German are taught in fall semesters only and are open to students with advanced skills in reading and writing German. For seminar enrollment in our affiliated departments, please consult the guidelines and German studies adviser of those departments (art, history, music, philosophy, political science, religion, sociology and anthropology).

## Course Major: Options, Requirements, and Acceptance Criteria

- Completion of a minimum of 8 credits in courses numbered 003 and above.
- Majors in course are required to take GMST 091: Special Topics, and enroll in at least one seminar taught in German in their junior or senior year. (See the note on enrolling in seminars)
- Three of the 8 credits may be taken in English from among the courses relevant to German studies listed in the catalog under literature in translation (e.g., LITR 054G or LITR 066G) or from courses listed as eligible for German studies (see list below).
- Comprehensive requirement: Seniors in course are required to submit a bibliography of 20 works to form the basis of a discussion and an extended, integrative paper (approximately 15 double-spaced pages in length) on a topic agreed to by the program coordinator. This paper, due before the date for the comprehensive examination, is complemented by a discussion of the paper with members of the program, in German.
- Students are strongly encouraged to spend a semester in Germany or at least participate in a summer program in a German-speaking country. Of the classes taken abroad, a maximum of 2 credits will normally count toward the major. In cases of double majors, this number might be increased in consultation with the German studies chair. After studying abroad, majors must take two additional German studies classes.


## Typical Course of Study:

Minimum of 5 credits in German above GMST
001 and 002:
GMST 003
GMST 008
GMST 020
GMST 091
GMST Seminar (104 and above, 2 credits)
Maximum of 3 credits taught in English from
LITR, such as:
LITR 020: Expressions of Infinite Longing. German Romanticism and its Discontents
LITR 051G: European Cinema
LITR 054G: German Cinema
LITR 066G: History of German Drama
Or the equivalent, taught in English, and from List of Courses eligible for German Studies (taught in English in other departments, e.g. HIST 035 and PHL 049 or SOAN 101)

## Course Minor: Options,

 Requirements, and Acceptance Criteria- Students must complete a minimum of 5 credits in courses and seminars, at least 3 of which are taught in German and numbered 003 or above. Of these courses, GMST 008, 020 and GMST 091: Special Topics are required.
- Up to two credits can come from courses eligible for German studies numbered 008 or above.
- Students are strongly encouraged to spend a semester in Germany or at least participate in a summer program in a German-speaking country. Of the classes taken abroad, a maximum of 2 credits will normally count toward the minor. In case of double majors, this number can be increased in consultation with the German Studies coordinator.


## Typical Course of Study:

GMST 003
GMST 008
GMST 020
GMST 091
1-2 advanced courses or 1 seminar taught in German or in English from the list of courses eligible for German studies (from LITR or from an affiliated department, e.g. HIST 036 and MUSI 035 or PHL 137)

## Honors Major and Minor in German Studies

Majors and minors in the Honors Program are expected to fulfill the minimum requirements for course majors above and be sufficiently proficient in spoken and written German to complete all their work in the language. All majors and minors in honors are strongly advised to spend at least one semester of study in a German-speaking country. Candidates are expected to have a B average in coursework both in the department and at the College.

## Preparations

Honors Major: The honors major requirements are identical to the course major requirements. All honors majors must include GMST 020 and GMST 091 in their course of study. In addition:

1. Honors majors in German studies take three seminars, two taught in German and one taught in English from an affiliated program. In consultation with the German studies chair, two advanced courses in German studies (such as GMST 054 and a second special topics course, GMST 091) may be taken in lieu of one seminar.
2. Honors majors participate in the external examination process required of all Swarthmore honors students and the Senior Honors Study process explained below. (Total: Minimum of 8 credits, 6 credits for seminars +1 credit for GMST $091+1$ credit for GMST 020)
Honors Minor: The honors minor prepares for the examination in German studies by following the minimum course minor requirements. All honors minors must take one seminar taught in German for their honors preparation and complete Senior Honors Study (described below). (Total: 5 credits)

## Senior Honors Study (SHS) and Mode of

## Examination

For SHS, students are required to present an annotated bibliography of criticism-articles or books-concerning at least five of the texts in each seminar offered for external examination. Students are required to meet with the respective instructor(s) of the seminars being examined by Feb. 15 to discuss their planned bibliography and to meet with the instructors for a second time when the approved bibliography is handed in by May 1. The annotated bibliography, which carries no credit, will be added to course syllabi in the honors portfolio. The honors examination will take the form of a 3-hour written examination based on each seminar and its SHS preparation as well as a 1-hour oral panel examination based on the three written examinations for majors or a 30 - to 45 minute oral examination for minors.

## Off-Campus Study

Students of German are strongly encouraged to spend at least a semester in a German-speaking country. There are several excellent opportunities to participate in an approved program, such as the Columbia Consortium Program in Berlin, Duke University in Berlin, the Macalester College German Study Program in Berlin/Vienna, or the Dickinson College Program in Bremen. Students should consider going abroad in the spring semester. This will enable them to participate fully in the semester schedule of German and Austrian Universities.

## Eligible Courses in German Studies

ARTH 005. Modern Art
ARTH 019. Contemporary Art
ARTH 077. Exhibiting the Modern
ARTH 166. Avant-Gardes
GMST 008. Texts in Content: Topics in German
Culture and Society from the Reformation Until Today
GMST 020. Introduction to German Studies
GMST 024. German: Teaching and Pedagogy
GMST 054. German Cinema (Cross-listed
LITR054G and FMST 054)
GMST 091. Special Topics: TBA
GMST 104. Goethe und seine Zeit
GMST 108. Wien und Berlin
GMST 111. Genres
HIST 028. Nations \& Nationalism-E. Europe
HIST 029. Sexuality and Society in Modern Europe
HIST 035. From Emancipation to Extermination: European Jewry's Encounter with Modernity HIST 036. Modern Germany

HIST 037. History and Memory; Perspectives on the Holocaust
HIST 125. Fascist Europe
LITR 016. First-Year Seminar: Transcultural Mediations: How Texts Travel
LITR 020. Expressions of Infinite Longing:
German Romanticism and its Discontent
LITR 051. European Cinema (Cross-listed as FMST 051)
LITR 066G. History of German Drama
MUSI 003A. Jazz Today: USA, Europe \& the
African Heritage
MUSI 006B. Music of Holocaust \& WW II Era
MUSI 007A. W.A. Mozart
MUSI 007B. Beethoven and the Romantic Spirit
MUSI 022. 19th-Century European Music
MUSI 034. J.S. Bach
MUSI 101. J.S. Bach
MUSI 103. Mahler and Britten
MUSI 105. Beethoven
PHIL 029. Philosophy of Modern Music
PHIL 039. Existentialism
PHIL 048. German Romanticism
PHIL 049. Marx, Nietzsche, Freud
PHIL 114. 19th-Century Philosophy
PHIL 139. Phenomenology, Existentialism, and Poststructuralism

POLS 053. The Politics of Eastern Europe: Polities in Transition
POLS 059. Contemporary Euro Politics
POLS 073A. Migration, Immigration and Globalization in Europe
POLS 107. Comparative Politics: Greater Europe
SOAN 044D. Colloquium: Critical Social Theory
SOAN 044E. Colloq: Modern Social Theory

## Courses

Not all advanced courses or seminars are offered every year. Students wishing to major or minor in German should plan their program in consultation with the section. All courses numbered 050 and above are open to students after GMST 020. (See note on enrolling in seminars.)

GMST 001-002, 003. Intensive German Students who start in the 001-002 sequence must complete 002 to receive credit for 001.
For students who begin German in college. Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, writing, and readings in expository and literary prose. See the explanatory note on language courses earlier. Normally followed by 008 , or 020 .
1.5 credits.

GMST 001. Intensive Elementary German Fall 2014. Wegener, Schnader.

GMST 002. Intensive Elementary German Spring 2015. Wegener, Schnader.

GMST 003. Intensive Intermediate German Fall 2014. Wegener, Schnader.
GMST 005. German Conversation
A 0.5 -credit conversation course, concentrating on the development of the students' speaking skills.
Prerequisite: GMST 008 in a current or a previous semester or the equivalent placement test score. 0.5 credit.

Fall 2014. Schnader.

## GMST 006. German Conversation

A 0.5-credit conversation course, concentrating on the development of the students' speaking skills.
Prerequisite: GMST 008 in a current or a previous semester or the equivalent placement test score. 0.5 credit.

Spring 2015. Schnader.
GMST 008. Texts in Contexts: Topics in German Culture and Society from the Reformation until Today
GMST 008 is a 4th semester course integrating the continued work on advancing the students' linguistic skills with the acquisition of cultural, historical, and literary content about Germanspeaking countries. This course is the gateway to all upper level courses in the German studies curriculum. Topics alternate every year. Prerequisite: placement test score or GMST 003.
Topic for Spring 2015: Deutsche Popmusik - Von Gassenhauer bis Hip Hop

In this course, we will trace the development of German popular music from Weimar era street and vaudeville hits, musical films of the Third Reich and the postwar decades, to post-1968 protest songs, German Schlager, New German Wave, and Hip Hop. While fine-tuning your knowledge of German cultural history, advancing your stylistic, lexical and grammatical competency in German will be the overall goal.
1 credit.
Spring 2015. Wegener.

## GMST 020. Introduction to German

 Studies: Topics in German Literature and CultureThis course serves as the introduction to the interdisciplinary field of German studies. What is German "culture," how has it been defined, which narratives, theories, and events have shaped the national imaginary from the 18th century to today? Students will develop speaking and writing skills through short assignments and presentations intended to familiarize them with the vocabulary

## MLL: German Studies

of literary and cultural analysis in German. Topics change every year.
Prerequisite: placement test score or GMST 008.
Topic for Fall 2014: Verlorene Unschuld: literarische und filmische Jugendporträts This course will explore representations of youth and coming-of-age in literature and film of the German-speaking world. We will read both canonical and non-canonical texts beginning in the 18th century and extending into the 21 st that engage with themes of love, education and crisis. What do these narratives reveal about national, cultural and individual identity formation during early stages of maturity? How are these narratives shaped by various political and historical contexts? In addition to works by authors such as Johann Wolfgang von Goethe, Frank Wedekind, Ingeborg Bachmann, Bernhard Schlink, and Jana Hensel, we will also examine key theoretical texts and films that focus on narratives of youth.
1 credit.
Fall 2014. Wegener.

## GMST 054. German Cinema

(Cross-listed as LITR 054G/FMST 054)
This course is an introduction to German cinema from its inception in the 1890s until the present. It includes an examination of early exhibition forms, expressionist and avant-garde films from the classic German cinema of the Weimar era, fascist cinema, postwar rubble films, DEFA films from East Germany, New German Cinema from the 1970s, and post 1989 heritage films. We will analyze a cross-match of popular and avant-garde films while discussing mass culture, education, propaganda, and entertainment as identity- and nation-building practices.
Eligible for FMST credit, fulfills national cinema requirement.
Writing course.
1 credit.
Not offered 2014-2015.
GMST 091. Tatort Deutschland: History, Practice and Theory of German Crime Fiction and Film
Crime - real and fictional - has always been an important part of German culture, symbolizing, defining and analyzing its own boundaries as well as intersections with Others. Think about Fritz Lang's M (1931) or the 40+ long run of the cult series Tatort (1973-). This course will investigate the history, practice and theory of crime fiction, TV and film with an emphasis on the post-1945 German landscapes (East and West). How and why do crime narratives, in formal structure and content, deal with the legacy of the German Past (Weimar Years, Third Reich and Holocaust) and a divided Germany (1949-89)? How do they incorporate and interrogate watershed political events? What contributions do Krimis make to the
theory of narrative? Why are some of Germany's longest running TV-series crime dramas? What accounts for their popularity? These and other questions will shed light on the ways in which the crime genre interacts with concepts of nationality, as well as regional and local identity constructions. In addition to weekly readings, students will watch episodes of the most famous classic and current crime dramas, prepare presentations on specific aspects of German crime, and write two shorter papers (one on fiction and one on film). Taught in German.
Course Prerequisite: GMST 008 or 020.
1 credit.
Spring 2015. Simon.

## GMST 093. Directed Reading

## Seminars

Five German seminars are normally scheduled on a rotating basis. Preparation of topics for honors may be done by particular courses plus attachments only when seminars are not available. Note. Students enrolling in a seminar are expected to have done the equivalent of at least one course beyond the GMST 020 level.
GMST 104. Goethe und seine Zeit
This seminar familiarizes students with arguably the greatest German writer whose literary works revolutionized German poetry, drama, and the novel. Often regarded as the founder of German classicism, Goethe's literary writings, spanning over six decades, defy easy categorization. Texts read in the seminar include the early drama Götz von Berlichingen and the influential epistolary novel The Sorrows of Young Werther, the classical drama Iphigenie auf Tauris, the novels
Wilhelm Meisters Lehrjahre and Die
Wahlverwandtschaften, early essays on Shakespeare and Gothic architecture, poetry from all periods of his life, and, of course, Faust. We will also look at Goethe's scientific ideas (morphology of plants and theory of optics) and his philosophical and economic worldview. 2 credits.
Not offered 2014-2015.
GMST 105. Die deutsche Romantik
Romanticism as the dominant movement in German literature, thought, and the arts from the 1790s through the first third of the 19th century. Focus on Romantic aesthetics and poetics, including the influence of German Idealism. 2 credits.
Not offered 2014-2015.
GMST 108. Wien und Berlin
Between 1871 and 1933, Vienna and Berlin were two cultural magnets drawing such diverse figures
as Sigmund Freud, Ludwig Wittgenstein, Gustav Klimt, Gustav Mahler, Leon Trotsky, Gerhard Hauptman, Käthe Kollwitz, Rainer Maria Rilke, Bertolt Brecht, Kurt Tucholsky, Else LaskerSchüler, Richard Strauss, Arnold Schönberg, and Adolf Hitler. This course will examine the multiple tensions that characterized "fin-de-siècle" Vienna and Berlin, such as the connection between gender and the urban landscape, the pursuit of pleasure and the attempt to scientifically explore human sexuality, and the conflict between avantgarde experimentation and the disintegration of political liberalism.
2 credits.
Not offered 2014-2015.
GMST 110. German Literature After World War II
The aim of the seminar is to acquaint students with literary developments in the German-speaking countries after the end of World War II. The survey of texts will address questions of
"Vergangenheitsbewältigung" and social critique in the 1950s, the politicization of literature in the 1960s, the "Neue Innerlichkeit" of the 1970s, and literary postmodernity of the 1980s. We will also study the literature of the German Democratic Republic and texts dealing with post-wall, unified Germany. Authors included are Böll, Eich, Grass, Frisch, Bachmann, Handke, Bernhard, Jelinek, Strauss, Wolf, Delius, Plenzdorf, Süskind, and Menasse.
2 credits.
Not offered 2014-2015.

## GMST 111. Genres

This seminar will explore in depth a particular genre of literary and media production.
Scheduled topics include the following:

- Deutsche Lyrik
- Populärliteratur
- Der deutsche Film
- Das deutsche Drama
- Das deutsche Roman

1 credit.
Fall 2014. Simon.
GMST 111: Medienkultur - German Media Culture
German Media Culture, beginning with the first Western book printed in movable type in the 1450s (Gutenberg's Bible), is a rich source of inquiry for historical, political, sociological, philosophical, technological, and aesthetic reasons. In this interdisciplinary senior seminar, we will not only read, view and listen to primary media sources in their specific historical contexts, but we will also investigate and analyze media theories by Freud, Marx, Benjamin, Heidegger, Adorno, Brecht, Enzensberger, Habermas, Kracauer, and Kittler (among others) that develop alongside and in reaction to the rapidly changing mediascapes of

19th-21st century German-speaking countries. From print and popular press culture, letters and postcards, to radio, film, television and digital media, the seminar will devote two weeks to each major medium with authentic material made available on a course website and on reserve. Students are responsible for one oral presentation (submitted in written form a week later) and researching, composing and constructing a detailed analytical project in digital form in German, which they will present as a poster session at a German Studies event in early December.
2 credits.
Fall 2014. Simon.

## GMST 112. German Short Fiction

## (Erzählungen, Novellen, Gerschichten)

When the Austrian writer Hugo von Hoffmannsthal, himself an accomplished writer of stories (Erzählungen), published a collection of 19th-century German Erzählungen, he stated that he only needed to remember the most moving reading experiences of his youth to establish a long list of indelible stories written by the greatest writers of the century. The popular genre of German (short) prose fiction, characterized by thematic diversity and narrative innovation, has been flourishing in various literary movements from Goethe to the present time. In this seminar, we will read a great variety of prose fiction (Erzählungen, Geschichten, Novellen), from the late 18th century onward, and examine the changing narrative forms and thematic preoccupations found in these texts. Authors include: Goethe, Tieck, E.T.A. Hoffmann, Arnim, Eichendorff, Kleist, Büchner, Keller, Gotthelf, Droste-Hülshoff, Stifter, Hebbel, Grillparzer, Schnitzler, Rilke, Hofmannsthal, Kafka,
Langgässer, Kaschnitz, Koeppen, Lenz,
Bachmann, Hildesheimer, Böll, Aichinger, Lenz, Wohmann, Handke, und Hein.
2 credits.
Not offered 2014-2015.
GMST 199. Senior Honors Study

## Japanese

## The Academic Program

Courses in Japanese language, literature, and culture may be combined with courses taken at Haverford, Bryn Mawr and with study abroad toward a special major or a minor in Japanese or may be counted toward a major or minor in Asian studies (see Asian studies). Interested students should consult with the section head of Japanese or with the chair of Asian studies.

## Special Majoring and Minoring in Japanese

Students may construct a special major in Japanese, featuring intensive study in Japanese language, literature, and culture. Japanese special majors will complete their coursework through a combination of study at Swarthmore, courses at Haverford or Bryn Mawr, and study abroad. Students interested in a Japanese special major or minor should consult with the section head of Japanese as soon as possible.
Students seeking a broader exposure to East Asian society and culture may consider a Japanese concentration within the Asian studies major. Students who wish to concentrate on linguistics rather than Japanese literature and culture may construct a special major in Japanese Language and Linguistics, with a combination of advanced language study at Haverford and Bryn Mawr, study abroad and courses and seminars in the Linguistics department at Swarthmore College. Students wishing to pursue this possibility should consult with the Japanese section head.

## Special Major in Japanese Language, Literature and Culture

At least 10 total credits starting with 001 , including at least one credit outside the department, are required for a special major in Japanese. Special majors should complete the following sequence of language courses JPNS 001, $002,003,004,012,012 \mathrm{~A}, 013,013 \mathrm{~A}$ or their equivalent. Japanese special majors are strongly encouraged to study abroad in a program approved by the section; transfer credits normally may be counted toward the special major.
Special majors should complete at least two courses on Japanese culture of level 015 and higher and at least two additional courses of level 30 and higher or their equivalent in coursework outside the department. Students are encouraged to combine their study of Japanese literature and culture with coursework in Japanese history, anthropology and sociology, religion, art, music, economics, political science, education, comparative literature, and other related fields within the tri-college consortium. At least two courses on Japanese literature and culture should normally be taken within the department.
All special majors will complete a culminating project.

## Minor in Japanese Language, Literature and Culture

A minimum of 5 credits numbered 004 and above is required for the course minor. At least one credit must be taken in Japanese literature, film or culture in translation, either in coursework offered by the Japanese section or its equivalent in coursework outside of Swarthmore, with the
approval of the section. A minimum of 3 credits should be taken at Swarthmore.
The section strongly encourages study abroad in a section-approved program; transferred credits normally may be counted toward the minor. One credit may be earned from another department on a Japan-related subject with the approval of the section.

## Honors Special Majors and Minors in Japanese

Honors study for qualified students may be substituted for the culminating project in the major. Students are encouraged to consult with the Japanese section head to discuss Honors special majors and honors minors.

## Courses

JPNS 001-002. Introduction to Japanese Students who start in the 001-002 sequence must complete 002 to receive credit for 001.
This intensive introduction to Japanese develops the four language skills of speaking, writing, listening, and reading. The spoken component will cover both formal and casual forms of speech; the written component will introduce the hiragana and katakana syllabaries; and about 200 kanji
characters.
1.5 credits.

## JPNS 001.

Fall 2014. Jo, Schad.

## JPNS 002.

Spring 2015. Jo, Schad.

## JPNS 003-004. Second-Year Japanese

Combines intensive oral practice with writing and reading in the modern language. The course attempts to increase students' expressive ability through the introduction of more advanced grammatical patterns and idiomatic expressions.
The course will introduce approximately 300 new kanji characters in addition to the 200 covered in JPNS 001-002.
1.5 credits.

## JPNS 003.

Fall 2014. Gardner, Jo.

## JPNS 004.

Spring 2015. Gardner, Jo.

## JPNS 007. Chinese/Japanese Calligraphy

 (Cross-listed as CHIN 007)Calligraphy is the art of beautiful handwriting. This course will introduce students to the importance of calligraphy in East Asian Culture. In addition to being a valuable cultural skill, calligraphy is also a process of self-cultivation and self-expression, which reflects the mind-set of the writer. Thus, students will have the opportunity to
learn Chinese/Japanese characters not only as linguistic symbols but also as cultural emblems and as an art form. Course objectives include learning to appreciate the beauty of Chinese/Japanese calligraphy, experiencing calligraphy by writing with a brush and ink, and studying various philosophies of calligraphy. In addition to learning several different calligraphic scripts, students will be introduced to the origin, evolution, and aesthetic principles of the Chinese and Japanese writing systems, as well as calligraphy's close connections with painting and poetry. Persistent hands-on practice will be required of all students; course work will include in-class practice, individual/group instruction, reading assignments, and take-home assignments. This class is open to all students and has no language requirement. Due to the course's practicum component, enrollment will be limited by lottery to 10 students. The course can be repeated for credit.
Eligible for ASIA credit.
0.5 credit.

Spring 2015. Jo.
JPNS 012-013. Third-Year Japanese
These courses aim to lead Japanese students into the intermediate-advanced level, deepening students' exposure to Japanese culture through the study of authentic materials and the application of language skills in diverse linguistic contexts. They will combine oral practice with reading, viewing, and discussion of authentic materials including newspaper articles, video clips, and literary selections. Students will continue to develop their expressive ability through use of more advanced grammatical patterns and idiomatic expressions, and will gain practice in composition and letter writing. These courses will introduce approximately 300 new kanji characters in addition to approximately 500 covered in first- and second-year Japanese.
Prerequisite: Completion of JPNS 004 or demonstration of equivalent language skills.
These courses are recommended to be taken together with JPNS 012A in the fall semester and JPNS 013A in the spring semester, which will provide additional opportunities for application and extension of newly acquired skills.
1 credit.
Spring 2015. Schad.

## JPNS 012A. Japanese Conversation

This course aims to improve students' command of spoken Japanese at the intermediate level. Can be repeated for credit. Prerequisite: completion of JPNS 004, or instructor's permission.
Eligible for ASIA credit.
0.5 credit.

Spring 2015. Schad.

## JPNS 013A. Readings in Japanese

This course aims to improve students'
intermediate-advanced reading skills, while introducing them to the world of Japanese
literature in the original. We will examine texts in various genres, such as personal essays, short stories, folk tales, manga, haiku, and free-verse poetry, and discuss the distinctive features of each genre as well as the cultural context for each work. Readings and discussion will be in Japanese. The course may be repeated for credit. Prerequisite: completion of JPNS 012, or instructor's permission.
Eligible for ASIA credit.
0.5 credit.

Fall 2014. Gardner.

## JPNS 014A. Foreign Language Teaching and Pedagogy

(Cross-listed as EDUC 072)
This course has two elements that are developed together throughout the course of the semester. Students can serve the Swarthmore community by teaching a foreign language to local elementary school students in an after-school program that meets two times/week. Students must teach for the entire 6 -week session, two days per week. During the evening pedagogy sessions held on campus, we will discuss writing weekly lesson plans, foreign language acquisition in children, teaching methodologies and approaches. We use a common goal-oriented curriculum among all the languages. Students must register for the language or educational studies course that they will be teaching and for a service time (A) M/W or (B) T/Th.
0.5 credit.

Spring 2015. Staff.

## JPNS 017. First-Year Seminar: The World

 of Japanese Drama(Cross-listed as LITR 017J/THEA 017)
This first-year seminar will explore the unique dramatic traditions of Japan from diverse angles, including a study of dramatic texts, videos of performance, and films based on famous dramatic works. Our seminar will focus on the three great dramatic traditions of Noh masked drama, Bunraku puppet theater, and Kabuki. We will also examine the cultural background of these dramatic forms, including the influence of Buddhism, Shintô, and shamanism, as well as the philosophical background and methodology of training and performance.
1 credit.
Not offered 2014-2015.

## JPNS 019. Topics in Japanese

This fourth-year level advanced Japanese course aims to develop students' language proficiency in reading, writing, listening, and speaking, through
examination and discussion of a variety of authentic materials on selected topics such as literature, language, history, education, and society. Readings and discussion will be in Japanese.
Prerequisite: completion of JPNS 013 or equivalent.
1 credit.
Not offered 2014-2015.

## JPNS 021. Modern Japanese Literature

 (Cross-listed as LITR 021J)An introduction to Japanese fiction from the Meiji Restoration (1868) to the present day, focusing on how literature has been used to express the personal voice and to shape and critique the concept of the modern individual. We will discuss the development of the mode of personal narrative known as the "I novel" as well as those authors and works that challenge this literary mode. In addition, we will explore how the personal voice in literature is interwoven with the great intellectual and historical movements of modern times, including Japan's encounter with the West and rapid modernization, the rise of Japanese imperialism and militarism, World War II and its aftermath, the emergence of an affluent consumer society in the postwar period, and the impact of global popular culture and the horizon of new transnational identities in the 21st century. All readings and discussions will be in English. 1 credit.
Not offered 2014-2015.

## JPNS 024. Japanese Film and Animation

(Cross-listed as LITR 024J/FMST 057)
This course offers a historical and thematic introduction to Japanese cinema, one of the world's great film traditions. Our discussions will center on the historical context of Japanese film, including how films address issues of modernity, gender, and national identity. Through our readings, discussion, and writing, we will explore various approaches to film analysis, with the goal of developing a deeper understanding of formal and thematic issues. A separate unit will consider the postwar development of Japanese animation (anime) and its special characteristics. Screenings will include films by Ozu, Mizoguchi, Kurosawa, Imamura, Kitano, and Miyazaki.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.

## JPNS 035. Narratives of Disaster and Rebuilding in Japan

## (Cross-listed as LITR 035J)

This course will explore documentary and fictional representations of the modern Japanese landscape and cityscape in crisis, with special attention to the role of the March 2011 earthquake, tsunami, and
nuclear disaster as a catalyst for change in contemporary Japan. Documentaries and fictionalizations of the 2011 "triple disaster" reignited debates over cultural trauma and the ethics of representing disaster. Through the study of literature, film, and critical discourse, we will examine the historical and cultural implications of such famous 20th-century disaster narratives as Godzilla and Japan Sinks, as well as the latest writing and films from Japan, in the context of public debates about safety, sustainability, and social change after the March 2011 tsunami and nuclear disaster.
The course is a part of the BMC $360^{\circ}$ course cluster "Perspectives on Sustainability: Disasters and Rebuilding in Japan." The final project for the $360^{\circ}$ course cluster will involve an exhibition utilizing objects and texts in the Trico special collections and archives. Readings and discussions will be in English. Course enrollment is limited; priority for registration will be given to $360^{\circ}$ students and Japanese and Asian Studies majors and minors.
Eligible for ASIA or ENVS credit.
1 credit.
Not offered 2014-2015.

## JPNS 041. Fantastic Spaces in Modern

## Japanese Literature

## (Cross-listed as LITR 041J)

As Japanese society has transformed rapidly in the 20th century and beyond, a number of authors have turned to the fantastic to explore the pathways of cultural memory, the vicissitudes of interpersonal relationships, the limits of mind and body, and the nature of storytelling itself. In this course, we will consider the use of anti-realistic writing genres in Japanese literature from 1900 to the present, combining readings of novels and short stories with related critical and theoretical texts.
Fictional works examined will include novels, supernatural tales, science fiction, and mysteries by authors such as Tanizaki Junichirô, Edogawa Rampo, Kurahashi Yumiko, and Murakami Haruki. Readings will be in English; no previous experience in Japanese studies is required.
Writing course.
1 credit.
Not offered 2014-2015.
JPNS 051. Japanese Poetry and Poetics
(Cross-listed as LITR 051J)
Japanese poetic forms such as haiku, renga, and tanka have had a great impact on modern poetry across the world, and have played a central role in the development of Japanese literature and aesthetics. This course will examine Japanese poetry from its roots in ancient oral tradition though the internet age. Topics include the role of poetry in courtship, communication, religion, and
ritual; orality and the graphic tradition; the influence of poetic models from China and the West; social networks and game aesthetics in renga linked poetry; and haiku as a worldwide poetic form. Course projects will include translation and composition in addition to analytical writing. Readings will be in English, and there are no language requirements or other prerequisites; however, the course will include a close examination of Japanese poetic sound, syntax, meter, and diction, or how the poems "work" in the original language.
1 credit.
Fall 2014. Gardner.
JPNS 061. Manga, Bande Dessinée, and the Graphic Novel: A Transnational Study

## of Graphic Fiction

(Cross-listed as LITR 061FJ)
1 credit.
Not offered 2013-2014.

## JPNS 074. Japanese Popular Culture and

## Contemporary Media

(Cross-listed as LITR 074J)
Japanese popular culture products such as manga (comics), anime (animation), television,
film, and popular music are an increasingly vital element of 21 st-century global culture, attracting ardent fans around the world. In this course, we will critically examine the postwar development of Japanese popular culture, together with the proliferation of new media that have accelerated the global diffusion of popular cultural forms. Engaging with theoretical ideas and debates regarding popular culture and media, we will discuss the significance of fan cultures, including the "otaku" phenomenon in Japan and the United States, and consider how national identity and ethnicity impact the production and consumption of popular cultural products. We will also explore representations of technology in creative works, and consider the global and the local aspects of technological innovations, including the internet, mobile phones, and other portable technology. Readings and discussion will be in English. The course will be conducted in a seminar format with student research and presentations comprising an important element of the class. Previous coursework in Japanese studies or media studies is recommended but not required.
1 credit.
Spring 2015. Gardner.

## JPNS 083. War and Postwar in Japanese Culture

(Cross-listed as LITR 083J)
What was the Japanese experience of World War II and the Allied Occupation? We will examine literary works, films, and graphic materials (photographs, prints, advertisements, etc.),
together with oral histories and historical studies, to seek a better understanding of the prevailing ideologies and intellectual struggles of wartime and postwar Japan as well the experiences of individuals living through the cataclysmic events of midcentury. Issues to be investigated include Japanese nationalism and imperialism; women's experiences of the war and home front; changing representations and ideologies of the body; war writing and censorship; the atomic bombings of Hiroshima and Nagasaki; Japanese responses to the Occupation; and the war in postwar memory. The course readings and discussions will be in English.
1 credit.
Not offered 2014-2015.

## JPNS 094. Independent Study

## JPNS 096. Japanese Thesis

Writing course.

## Russian

## The Academic Program

The major in Russian language and literature covers the rise and development of Russian literature and culture up to the present. Students will encounter critical theory and develop skill in critical analysis, approaching Russian and Soviet literature and culture in relationship to historical and social forces. The emphasis in our courses is on culture as well as literature: indeed, understanding Russian literature and other arts is impossible without some background in the history and culture. Because Russian is a small program, we are very responsive to student demand and can develop courses almost to order, if there is sufficient interest. Students interested in a combined Russian language and linguistics major may develop a program with advanced courses and seminars in the language offered at Bryn Mawr or the University of Pennsylvania and the Linguistics Department at Swarthmore College.

## Russian in Combination with Other Programs

In the Course Program, Russian can contribute toward majors in comparative literature, film and media studies, and linguistics and to the concentrations in interpretation studies and gender and sexuality studies. Thematic courses in Russian culture can support majors or minors in history, music, philosophy, and political science and concentrations in Asian studies, environmental studies, and Islamic studies. A Russian honors minor fits well into an honors major in the humanities or social sciences, and nicely rounds out majors in engineering or the natural sciences. In the Honors Program, Russian contributes toward the major or minor in comparative literature. By including coursework in second
language acquisition at Bryn Mawr College, Russian can be part of a special major in educational studies for teacher certification.
There is no distinction between qualification for the Russian Course Program and for the Honors
Program. We recommend a minimum of one semester or summer of study in Russia. Majors and minors are urged to build and maintain fluency by taking Russian Conversation (RUSS 006A), and to support their work in the field with courses in anthropology, art, cognitive science,
film and media studies, history, music, philosophy, political science, religion, sociology, theater, and other literatures.
RUSS 091, the seminar attachment, may be added to any course numbered 020 or above to convert it to a seminar, for a total of two credits. The additional work is done in the original language and supported by regular meetings with the professor, readings, discussions, and significant writing assignments in Russian. We anticipate that most seminar work will be done in this format. If there is sufficient student demand, we can offer advanced seminars in any of the following areas:

Seminar Topics:
RUSS 101. Tolstoy
RUSS 102. Russian Short Story
RUSS 103. Pushkin and Lermontov
RUSS 104. Dostoevsky
RUSS 105. Literature of the Soviet Period
RUSS 106. Russian Drama
RUSS 107. Russian Lyrical Poetry
RUSS 108. Russian Modernism
RUSS 109. Chekhov
RUSS 110. Bulgakov
RUSS 111. Tsvetaeva and Mayakovsky
RUSS 112. Akhmatova and Mandelshtam
RUSS 113. Russian and Soviet Cinema
RUSS 114. Folklore in Russian Literature
RUSS 115. The Many Faces of the Russian Literary Anecdote
RUSS 116. The Petersburg Myth in Russian Literature
RUSS 117. Post-Soviet Russian Literature
RUSS 118. Russian Jewish Writers
RUSS 119. Russian Women Writers
RUSS 120. Russian Science Fiction and Fantasy
The Russian section webpage includes descriptions of the possible seminar topics listed above.
The Russian Program offers a course major or minor and an honors major and minor. Courses in
Russian literature and culture (and courses in allied subjects, such as East European Prose or the Translation Workshop) may also be part of a special major.

## Course Major

## Requirements

A minimum of eight credits, which must include:

1. RUSS 004 (unless placed higher)
2. RUSS 010 or RUSS 011 (or equivalent course in Russia)
3. One survey course: RUSS 013 or RUSS 014
4. Four content credits: RUSS 013-RUSS 086. At least one full content credit must be earned through: two half-credit attachments to these intranslations courses, RUSS 091 (Seminar Attachment), RUSS 093 (Directed Reading), or RUSS 094 (Independent Study). Credit from study abroad may be used toward 3 of these credits.
5. One two-credit seminar: RUSS 100 and above.

For students who choose not to emphasize literature, one Russian history course may be used to fulfill one content credit. Possible courses include HIST 001Q, HIST 038, and HIST 039. Students should consult Russian Section Faculty regarding attachments to these courses.

## Acceptance Criteria

To be accepted as a major or minor, you must have earned a minimum grade of " $B$ " in Russian language and literature courses taken at Swarthmore and present linguistic ability and clear potential for sophisticated study in the original literature, criticism, and cultural history of imperial Russia, the Soviet Union, and Post-Soviet Russia.

## Thesis / Culminating Exercise

The culminating exercise for a course major in Russian is one three-hour written examination (answering two questions in Russian, one in English), scheduled after the end of regular exams in the spring semester of senior year.

## Course Minor

## Requirements for a minor in course in

## Russian

A minimum of five credits, which must include:

1. RUSS 004 (unless placed higher)
2. RUSS 010 or RUSS 011 (or equivalent course in Russia)
3. One survey course: RUSS 013 or RUSS 014

4a. Two content credits: RUSS 013-RUSS 086 or

4 b. One content credit (RUSS 013-RUSS 086) plus an attachment.
Credit from study abroad may be used toward all content credits.
5. One two-credit seminar: RUSS 100 and above.

## Honors Major

## Prerequisites for Majors:

A minimum of eight credits, which must include:

1. RUSS 004 (unless placed higher)
2. RUSS 010 or RUSS 011 (or equivalent course in Russia)
3. One survey course: RUSS 013 or RUSS 014
4. Four content credits: RUSS 013-RUSS 086. At least one full content credit must be earned through: two half-credit attachments to these intranslations courses, RUSS 091 (Seminar Attachment), RUSS 093 (Directed Reading), or RUSS 094 (Independent Study). Credit from study abroad may be used toward 3 of these credits.
5. One two-credit seminar: RUSS 100 and above.

For students who choose not to emphasize literature, one Russian history course may be used to fulfill one content credit. Possible courses include HIST 001Q, HIST 038, and HIST 039. Students should consult Russian Section Faculty regarding attachments to these courses.
6. The minimum grade for acceptance into the Honors Program is " $B$ " level work in Russian language courses taken at Swarthmore and in RUSS 011 or its equivalent.
At least one semester of study in Russia is strongly encouraged.

## Senior Honors Study

Please see the information on seminars and seminar attachments, above.
At the beginning of final semester, seniors will meet with the Russian section head.

1. Honors majors write three $3,000-3,500$ word papers in Russian, one for each honors preparation, or else one 6,000 -word paper which integrates the three honors preparations. These three papers (or one long paper) become part of the portfolio presented to the external examiners, along with the syllabi of the three (2-credit) honors preparations and any other relevant material.
2. Minors will be expected to write one $3,000-$ 3,500 -word paper in Russian. This paper will become part of the portfolio presented to the examiner along with the syllabus of the one (2credit) honors preparation and any other relevant material.
3. Majors will take three three-hour written examinations prepared by external examiners, plus one half-hour oral exam for each, based on the contents of the written examination and materials submitted in the portfolio. Minors will take one three-hour written examination prepared by an external examiner and one half-hour oral examination based on the written examination and materials submitted in the portfolio.

## Honors Minor

## Prerequisites for Minors:

A minimum of five credits, which must include:

1. RUSS 004 (unless placed higher)
2. RUSS 010 or RUSS 011 (or equivalent course in Russia)
3. One survey course: RUSS 013 or RUSS 014

4a. Two content credits: RUSS 013-RUSS 086
or
4 b . One content credit (RUSS 013-RUSS 086) plus an attachment.
Credit from study abroad may be used toward all content credits.
5. One two-credit seminar: RUSS 100 and above.
6. The minimum grade for acceptance into the Honors Program is " B " level work in language courses taken at Swarthmore and in RUSS 011 or its equivalent.
At least one semester of study in Russia is strongly encouraged. See item 2 above for Senior Honors Study Paper.

## Special Major

Courses in Russian language, literature, and culture may be integrated into special majors of a variety of kinds, for example: Russian area studies, Russian cinema in history, or Russian and East European literature and/or culture.

## Off-Campus Study

Study abroad is strongly encouraged for students of Russian. We recommend four programs (ACTR, CIEE, Middlebury, and the Smolny Institute) for semester and academic-year study in Russia. Credit may also be available for study through other programs, with appropriate documentation. Consult your professor for more information on programs and sources of funding support.

## Research and Service-Learning Opportunities

Russian participates in the Service-Teaching Pedagogy course and can offer support in various ways to students teaching Russian in the elementary school.

## Summer Opportunities

Besides summer abroad study or internships, and the possibility of arranging for summer humanities research under the supervision of Russian program faculty, students interested in summer language study in Russia or in summer programs in the U.S. may apply for financial support from the Olga Lamkert Fund.
Russian is certified as a critical language by U.S. government agencies, meaning that for both summer study and study abroad there is funding
available to support students working in Russian, especially if they are working to reach a high level of proficiency. Ask us for information on this financial assistance and support in applying.

## Life After Swarthmore

A major or minor in Russian can enhance a variety of career choices: strong language skills enhance any other program of work, research or study, while knowledge of literature and culture offers subtle or obvious advantages in business, politics, science and medicine. Like other less commonly taught languages, Russian on your college transcript suggests to potential employers or graduate school admissions committees that you are smart and adventurous, willing to try a challenging new subject of study-and able to master it by completing a major or a minor.

## Graduate School and Other Study

 Several recent Russian majors and minors have completed area studies M.A. degrees at Harvard University; others have entered the Flagship Program, which aims to bring students to the highest levels of language fluency for subsequent work in politics, scholarship, or NGOs. Students with majors in Russian Literature have gone on to doctoral work in Political Science. Others have done graduate study in Linguistics, English Literature, and Comparative Literature. The systematic nature of Russian grammar makes it no surprise that some of our majors and minors have gone on to medical school or to graduate work in Physics and Astronomy. One graduate received a Fulbright fellowship to study Russian authors who covered the Spanish Civil War as journalists, and how their writing influenced the later development of Soviet literature as well; another received a Fulbright to study plant genetics in southern Russia and Kazakhstan. One of our former students left the Swarthmore area to dance with the Boston Ballet.
## Career Options/Opportunities

As the paths of study above suggest, Russian can be combined with almost any field to enhance the possibilities available. Whether immediately after graduation or later, our alumni have found work as editors or English teachers in Russia. Some have gone into the State Department or have become medical doctors. Graduate study may lead to careers as college and university professors or directors of university Title VI centers.
Whatever your career choice, chances are we can put you in touch with alumni of Swarthmore's Russian program who will be able to offer you advice, support, and connections in the field.

## Courses

Not all advanced courses or seminars are offered every year. Students wishing to major or minor in

Russian should plan their program in consultation with the department faculty.
Seminars in Russian are only offered when there is sufficient demand. Otherwise students who wish to take a literature course in translation for seminar credit must register for a Seminar Attachment (1 additional credit), adding an A to the course number: $21 \mathrm{~A}, 33 \mathrm{~A}, 41 \mathrm{~A}$, etc. Courses numbered under 20 cannot be taken as seminars.

RUSS 001-002, 003. Intensive Russian
Students who start in the 001-002 sequence must complete and pass 002 in order to receive credit for 001.
For students who wish to begin Russian in college or who did not move beyond an introduction in high school. Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, work on phonetics, writing, web materials, and readings in literary and expository prose. Conducted primarily in Russian; normally followed by RUSS 004, RUSS 011 and ideally by RUSS 010 , and RUSS 008A.
See the explanatory note on language courses in the first section of modern languages and literatures.
1.5 credits.

RUSS 001.
Fall 2014. Johnson, Yordanova.
RUSS 002.
Spring 2015. Johnson, Yordanova.
RUSS 003.
Fall 2014. Forrester, Yordanova.

## RUSS 004. Intermediate Intensive Russian

For majors and those interested in reaching advanced levels of proficiency in the language. Advanced conversation, composition, translation, and stylistics. Considerable attention to writing skills, phonetics, and spontaneous speaking. Readings include short stories, poetry, newspapers, and the Russian web.
1.5 credits.

Spring 2015. Forrester, Yordanova.
RUSS 006A. Russian Conversation
This course meets once a week for 1.5 hours. Students will read newspapers, explore the Internet, and watch videos to prepare for conversation and discussion. Each student will design and complete an individual project based on his or her own interests and goals. This course may be repeated once for credit.
Prerequisite: 004 in the current or a previous semester or by permission of the instructor. 0.5 credit.

Spring 2015. Yordanova.

RUSS 009. Cross-Cultural Pragmatics
Students in this course will explore how American and Russian speakers perceive politeness, and how sociocultural values underlying both cultures affect the performance and perception of speech acts, such as greetings, requests, apologies, compliments, complaints, and gratitude. This course will focus on language and culture-specific features of speech acts. This class will help American learners of Russian to improve their pragmatic competence so that they can successfully interact with Russian native speakers in everyday-life situtations. Students will read primarilty in English and analyze Russian and English examples in various sociocultural contexts. Russian 001 required.
0.5 credit.

Not offered 2014-2015.

## RUSS 010. Advanced Russian

The course includes practice in speaking, understanding, reading and writing Russian through the use of authentic Russian language materials, including film. Students will consolidate previous knowledge of Russian grammar, and will significantly increase their vocabulary and improve their level of coherent language and writing. Students will acquire conscious knowledge of the meanings of the grammatical forms applied to discourse, i.e. to specific verbal situations, based not only on the underlying linguistic phenomena, but also on the content of lingua-cultural situations.
1 credit.
Fall 2014. Yordanova.
RUSS 011. Introduction to Russian Culture
This advanced intensive writing course will reinforce previous stages of work in Russian and will focus on composition rather than translation from English. Students will develop advanced skills in comprehension and active use of the written language through the use of authentic Russian language materials. The course will concentrate on contemporary Russian culture and also on changes in the Russian language-with a wide variety of materials from fiction, newspapers, journals and other media sources.
Conducted in Russian.
Prerequisite: RUSS 004 or permission from the instructor.
Writing course.
1 credit.
Spring 2015. Yordanova.

## RUSS 012A. Foreign Language Teaching and Pedagogy <br> (Cross-listed as EDUC 072)

This course has two elements that are developed together throughout the course of the semester. Students can serve the Swarthmore community by
teaching a foreign language to local elementary school students in an after-school program that meets two times/week. Students must teach for the entire 6-week session, two days per week. During the evening pedagogy sessions held on campus, we will discuss writing weekly lesson plans, foreign language acquisition in children, teaching methodologies and approaches. We use a common goal-oriented curriculum among all the languages. Students must register for the language or educational studies course that they will be teaching and for a service time (A) $\mathrm{M} / \mathrm{W}$ or (B) T/Th.
0.5 credit.

Spring 2015. Staff.

## RUSS 013. The Russian Novel: The Classic

 Tradition(Cross-listed as LITR 013R)
This course surveys the rise of the Russian novel during the nineteenth century. We will read works by Lemontov, Gogol, Turgenev, Dostoevsky and Tolstoy. Our examination of the literary and rhetorical strategies of these authors will be grounded in an understanding of their cultural context. We will probe issues of Russia's national identity, class system, and tendency toward authoritarianism during this paradoxical century of inertia and upheaval. As a writing course, polished academic writing and the process of revision is given particular emphasis.
Writing course
1 credit
Fall 2014. Johnson.

## RUSS 014. The Russian Novel: Revolution,

 Terror and Resistance(Cross-listed as LITR 014R)
This course surveys the Russian novel during the twentieth century, from the years leading up to the Bolshevik Revolution, through the Soviet era, and into the post-Cold War period. Works include Andrei Bely's modernist novel Petersburg, Yuri Zamiatin's sci-fi dystopia We, and Mikhail Bulgakov's Faustian masterpiece Master and Margarita. In addition to exploring ideas of genre and artistic strategy, particular focus will be paid to the ways in which these and other authors resist the terror and repression of their respective eras.
1 credit.
Fall 2015. Staff.

## RUSS 015. First-Year Seminar: East

European Prose in Translation
(Cross-listed as LITR 015R)
Novels and stories by the most prominent 20thcentury writers of this multifaceted and turbulent region. Analysis of individual works and writers to appreciate the religious, linguistic, and historical diversity of Eastern Europe in an era of war, revolution, political dissent, and outstanding
cultural and intellectual achievement. Readings, lectures, writing, and discussion in English; students who are able may do some readings in the original languages.
Writing course.
1 credit.
Fall 2014. Lukic.

## RUSS 017. First-Year Seminar: Love and

## Sex in Russian Literature

(Cross-listed as LITR 017R)
Best known for political priorities and philosophical depth, Russian literature has also devoted many works to the eternal concern of love and sex. We will read significant and provocative works from traditional folk tales through the 20th century to discuss their construction of these most
"natural" impulses - and how they imagine the relationship of human attraction to art, politics and philosophy.
Writing course.
Eligible for INTP credit.
1 credit.
Not offered 2014-2015.
RUSS 021. Dostoevsky (in Translation) (Cross-listed as LITR 021R)
Writer, gambler, publicist, and visionary Fedor Dostoevsky is one of the great writers of the modern age. His work influenced Nietzsche, Freud, Woolf, and others and continues to exert a profound influence on thought in our own society to the present. Dostoevsky confronts the "accursed questions" of truth, justice, and free will set against the darkest examples of human suffering: murder, suicide, poverty, addiction, and obsession. Students will consider artistic, philosophical, and social questions through texts from throughout Dostoevsky's career. Students with knowledge of Russian may read some or all of the works in the original.
1 credit.
Spring 2016. Staff.

## RUSS 023. The Muslim in Russia

 (Cross-listed as LITR 023R)The long and strong relationship of Russia and Islam has been neglected in scholarship until recently. This course will examine texts (and films) spanning more than a thousand years, to introduce actual interactions of Russians and Muslims, images of Muslims in Russian literature (and a few Muslim images of Russia), the place of Muslim writers in Soviet literature, and the current position of Muslims in Russia and in Russian discourse.
1 credit.
Not offered 2014-2015.
RUSS 026. Russian and East European Science Fiction
(Cross-listed as LITR 026R)
Science fiction enjoyed surprisingly high status in
Russia and Eastern Europe, attracting such prominent mainstream writers as Karel Čapek, Mikhail Bulgakov, and Evgenii Zamiatin. In the post-Stalinist years of stagnation, science fiction provided a refuge from stultifying official Socialist Realism for authors like Stanisław Lem and the Strugatsky brothers. This course will concentrate on 20th-century science fiction (translated from Czech, Polish, Russian and Serbian) with a glance at earlier influences and attention to more recent works, as well as to Western parallels and contrasts.
1 credit.
Spring 2015. Forrester.

## RUSS 042. Revolutionary Theater

(Cross-listed as LITR 042R)
We start with Konstantin Stanislavsky's founding of the Moscow Art Theatre, whose revolutionary approach to acting, directing and set design exerts a profound effect on Western theater to this day. Concurrently we will examine Anton Chekhov's four major plays and their integral part in the success of the Moscow Art Theatre. We then examine the effect of the Soviet revolution on Russian theater from two viewpoints. On the one hand, we will follow the arc of directors and playwrights such as Vsevelod Meyerhold who embraced the Soviet revolution and reflected this embrace in their radically innovative and futuristic productions and set designs. On the other hand, we will follow the tragic arc of playwright Mikhail Bulgakov and his stormy relationship with the Moscow Art Theater and the Soviet regime by reading his plays and his bitingly funny satire Black Snow.
1 credit.
Spring 2015. Johnson.

## RUSS 047. Russian Fairy Tales

(Cross-listed as LITR 047R)
Folk beliefs are a colorful and enduring part of Russian culture. This course introduces a wide selection of Russian fairy tales in their aesthetic, historical, social, and psychological context. We will trace the continuing influence of fairy tales and folk beliefs in literature, music, visual arts, and film. The course also provides a general introduction to study and interpretation of folklore and fairy tales, approaching Russian tales against the background of the Western fairy-tale tradition (the Grimms, Perrault, Disney, etc.). No fluency in Russian is required, though students with adequate language preparation may do some reading, or a course attachment, in the original.
Eligible for INTP credit.
1 credit.
Spring 2016. Forrester.

## RUSS 070. Translation Workshop

(Cross-listed as LING 070 and LITR 070R)
This workshop in literary translation will concentrate on both theory and practice, working in poetry, prose, and drama as well as editing. Students will participate in an associated series of bilingual readings and will produce a substantial portfolio of work. Students taking the course for linguistics credit will write a final paper supported by a smaller portfolio of translations. No prerequisites exist, but excellent knowledge of a language other than English (equivalent to a 004 course at Swarthmore or higher) is highly recommended or, failing that, access to at least one very patient speaker of a foreign language. 1 credit.
Fall 2014. Forrester.
RUSS 086. Nature and Industry in Russian Literature and Culture
(Cross-listed as LITR 086R)
From pre-Christian religion and folklore based in forest, steppe and tundra and the enduring role of peasant culture to today's Neo-Pagans, Russian culture has been closely bound to nature, developing sustainable agricultural practices, honoring "Moist Mother Earth" and (even sophisticated city dwellers) heading out to gather berries and mushrooms. But the Soviet era pursued science-fictional plans to redesign whole landscapes, make rivers flow backwards and even revolutionize plant genetics (Trofim Lysenko). In practice, such projects led to a shrinking Aral Sea, massive pollution of industrial and agricultural sites, and the worst nuclear disaster in human history (Chernobyl) - at great human cost. Writers have both supported industrial transformation and resisted industrialization. This course will trace the evolution of these elements of Russian culture, focusing on expressions of ideology in literature. No knowledge of Russian is necessary, but students with the language may do some reading in the original.
1 credit.
Fall 2014. Forrester.

## RUSS 091. Special Topics

For senior course majors. Study of individual authors, selected themes, or critical problems.
1 credit.
Offered on demand.
RUSS 093. Directed Reading
RUSS 094. Independent Study

## Seminars

Seminars in Russian are offered when there is sufficient demand. See the summary of the academic program for a list of seminar topics. The

Russian section webpage includes descriptions of possible seminar topics.

## Russian Courses Not Currently

## Offered

RUSS 016. History of the Russian Language
RUSS 024. Russian and East European Cinema
RUSS 025. The Poet and Power
RUSS 028. Tolstoy
RUSS 033. Terror in Russia: Method, Madness, and Murder
RUSS 041. War and Peace in Russian Literature and Culture
RUSS 045. Poetry in Translation/Translating Poetry
RUSS 067. Jews in Russia: Culture, Film, Literature
RUSS 075. Comedy, Satire, Humor

## Spanish

Spanish, the second national language of the United States, is the official language of twenty countries-spoken by close to 500 million people in the world. A living and migrating language with a long history, Spanish is the gateway to one of the most vital and heterogeneous literatures and cultures in the world.

## The Academic Program

Our program incorporates a wide range of themes, texts and geographic areas. While we pay close attention to canonical texts that have shaped a certain understanding of Iberian and Latin American literatures, we also explore the marginal voices and texts that challenge our preconceived notions. We cross the boundaries of literature, incorporating films and documentaries, as we consider new critical methods and reading practices.
The Spanish Program provides a strong foundation for graduate studies in Spanish and Latin
American literatures, and our students pursue careers in a wide range of disciplines. Whether you plan to be an engineer, biologist, historian, or political scientist, the study of Spanish language and its cultures will open your mind to unexplored worlds.

## Course Major

The Spanish major consists of eight courses and a culminating senior exercise. The Spanish major seeks to provide training in literary and cultural analysis, as it enables students to acquire linguistic proficiency.

## Requirements

1. Students majoring in Spanish must spend one semester in a Spanish-speaking country enrolled in a program approved by the Section. Only two
courses taken abroad that pertain to the curriculum of the section may count toward fulfillment of the major. For full immersion, all courses taken abroad must be taken in Spanish. Only advanced language courses taken abroad may receive Spanish credit but will not count toward the major.
2. Upon returning from abroad, students must enroll in a one-credit advanced course in the Section.
3. Students must complete a minimum of eight credits of work in courses numbered 008 and above. One of these courses must be SPAN 022 or 023 , except in special cases when the section waives this requirement or approves a similar course taken abroad.
4. Students may count only one of these courses toward the major: 008,010 or 011 . SPAN 006A and SPAN 024 will not count toward fulfillment of the major. Note that neither AP nor IB credits will count towards the major.
5. One of the eight credits of advanced work may be taken in English from the courses listed in the catalog under "Literatures in Translation: Spanish" (LITRS) offered by the section.
6. All majors are encouraged to take at least one seminar in the section. Students can take a seminar after one advanced course (numbered 050 to 089) or with permission of the instructor. Only one seminar in the major will count for two credits.
7. A minimum of four of the eight courses must be taken at Swarthmore College. Only two courses taken abroad may count toward the major.
8. Majors must maintain a balance in their overall program, taking advanced work in different historical periods from Spain and Latin America.

## Acceptance Criteria

For admission to the course major, the student needs a minimum of B level work in courses taken at Swarthmore taught in Spanish or the required introductory-level literature course (SPAN 022 or 023 ), demonstrated ability and interest in language and literature, and a minimum C average in course work outside the department.
Prerequisite: SPAN 004 or its equivalent is the language prerequisite for entering the Spanish major. It does not count as one of the 8 credits required for the major.

## Thesis / Culminating Exercise

Along with development of analytical literary and cultural abilities, majors are expected to reach an advanced level of linguistic proficiency. The Spanish comprehensive exam has oral and written components, both entirely in Spanish.
In their senior year, majors will re-write one of the best term papers they wrote for courses in the section. The new research paper will: a) deepen the original analysis; b) enhance the critical work on which it is based to include ample
documentation; and c) increase the paper's length to at least 25 pages, plus bibliography. The first draft of this paper will be turned in to Spanish faculty at the end of the fall semester. The final version will be turned in at the end of April. The oral examination is based on the content of the written essay and on overall course preparation. This essay-and the student's overall course preparation-will provide the basis for the oral examination in May, conducted exclusively in Spanish. The Spanish language ability of majors, as exhibited in this paper and the oral examination, will be part of the final evaluation.

## Course Minor

## Requirements

1. Completion of at least one semester of study abroad in a Spanish-speaking country in a program approved by the Spanish section. Only two courses taken abroad that pertain to the curriculum of the section may count towards fulfillment of the minor. To ensure full immersion, all courses taken abroad must be taken in Spanish. In special cases, depending on the student's language proficiency, this requirement may be fulfilled with a summerlong study abroad program identified and approved by the section. For summer programs, only one relevant course taken abroad may count towards fulfillment of the minor. Only advanced language courses taken abroad may receive Spanish credit but will not count toward the minor.
2. Upon returning from study abroad, students are expected to register in a one-credit advanced course in the section.
3. All minors must take a total of five courses and/or seminar offerings numbered 008 and above. Only one of these may overlap with the student's major or other minor. Note that AP and IB credits will not count towards the minor.
4. Students may count only one of the following towards their minor: 008, 010 and 011. SPAN
006A, SPAN 024 and courses in English translation will not count toward fulfillment of the minor.
5. All minors must take either SPAN 022 or 023 , except in special cases when the section waives this requirement or approves a similar course taken abroad.
6. All minors are strongly encouraged to take seminars offered by the section. Seminars count as one credit toward the minor.
7. To graduate with a minor in Spanish, a student must maintain a minimum grade of B in the discipline, and a C average in course work outside the department. Candidates to the minor must prove their ability and interest in the language, cultures and literatures of the Spanish-speaking world.
Prerequisite: SPAN 004 or its equivalent is the language prerequisite for entering the Spanish
minor. It does not count as one of the 5 credits required for the minor.

## Honors Major and Minor

## Requirements

Candidates for the major or minor in Spanish must meet these requirements to be accepted into Honors:

1. A "B" average in Spanish coursework at the College.
2. Completion at Swarthmore of either SPAN 022 or 023 (except in cases when the section waives this requirement or approves a similar course taken abroad) and one course numbered 050 to 089 .
3. Completion of one semester of study in a Spanish-speaking country in a program approved by the Spanish Section. In special cases, depending on the student's language proficiency, honors minors may fulfill this with a summer-long study abroad program identified and approved by the Spanish section.
4. Demonstrated linguistic ability in the language.
5. Present fields for external examination based on either two-credit seminars offered by the section, or the combination of two advanced courses numbered between 050-089 that form a logical pairing.
6. All majors in the Honors Program must do three
(3) preparations for a total of six units of credit while all minors must complete one (1) preparation consisting of two units of credit.

## The Honors Exam for Majors and Minors

 Majors will take three (3) three-hour written examinations prepared by external examiners, as well as three (3) half-hour oral exams based on the contents of each field of preparation.Minors will take one (1) three-hour written examination prepared by the external examiner, as well as one (1) half-hour oral exam based on the contents of the written examination and their overall preparation in the field presented.
All Honors exams will be conducted exclusively in Spanish.

## Special Majors

Students have the possibility of designing a special major, such as Spanish and Latin American Studies; Spanish within comparative literature; Spanish and linguistics; etc.

## Special Major in Spanish and Educational

 StudiesThe Spanish Program prepares students who wish to pursue a special major in Spanish and educational studies, and also those who are seeking certification to teach Spanish in primary and secondary schools in the Commonwealth of Pennsylvania or the 45 states with which Pennsylvania certification is reciprocal.

## Requirements for the Special Major in Spanish and Educational Studies

1. Complete six courses in Spanish. None of those courses may be taught in English.
2. A student may only count one of these courses for the major: 008,010 or 011.
3. Complete a minimum of five courses in Educational Studies.
4. In consultation with the Spanish adviser, as a culminating exercise, develop a set of original teaching materials with the following criteria:

- Focus on a grammar topic and a specific aspect of language acquisition, such as listening comprehension, speaking skills, discrete reading or writing.
- Incorporate a variety of class exercises or activities.
- Take into account different learning styles.
- The total volume of this portfolio may be the equivalent of a 15-20 page paper.
Note: The special major itself does not constitute preparation toward certification.


## Requirements for the Special Major in

 Spanish and Educational Studies with Teacher CertificationIn addition to the requirements of the Educational Studies Department (Introductionto Education; Educational Psychology; Adolescence; one additional course in educational studies; and Curriculum and Methods/Practice Teaching), including LING 001, students must meet the following requirements:

1. Complete the requirements for the Spanish major. No course taught in English, however, may be included among their 8 -credit total.
2. By the middle of the fall semester of the senior year, complete 10 hours of observation of language classes in the Spanish Program in consultation with the Spanish adviser.
3. Under the guidance of the Spanish adviser, write a short paper on the relevance of observed pedagogical approaches to a K-12 Spanish classroom.
4. In consultation with the Spanish adviser, as a culminating exercise, develop a set of original teaching materials with the following criteria:

- Focus on a grammar topic and a specific
aspect of language acquisition, such as listening comprehension, speaking skills, discrete reading or writing.
- Incorporate a variety of class exercises or activities.
- Take into account different learning styles.
- The total volume of this portfolio may be the equivalent of a 15-20 page paper.


## Application Process for the Major or the Minor

In addition to the process described by the Dean's Office and the Registrar's Office for how to apply for a major/minor, we recommend you to meet with the Spanish faculty to discuss your plans.
If after applying you are denied admission to the major/minor, you may apply again once you have addressed the recommendations made by the
Spanish section. If your application is deferred, the Spanish section will make a decision immediately after you have taken the necessary steps to address the reasons for being deferred.

## Off-Campus Study

Study abroad is an enriching intellectual experience when it is fully integrated into the student's overall academic experience at Swarthmore. Since the principal educational advantages of study abroad are in-depth crosscultural exposure and language learning, the best study abroad programs are those that maximize these benefits by fully immersing students in the host country's culture and society. This goal can only be effectively achieved by choosing full immersion study abroad programs. Pursuing academic coursework in English in a Spanishspeaking country does not comply with the academic goals and mission of the Spanish section.
The Spanish section encourages students to choose programs that build on previous language study. In order to be better prepared for academic work in Spanish, we recommend that students take a writing course in Spanish $(010,011,022,023)$ at Swarthmore prior to going abroad.
Upon returning from abroad, majors or minors must enroll in an advanced literature course in the section.

## Courses

Students wishing to major in Spanish should plan their program in consultation with the department. Spanish is the only language used in class discussions, readings, and assignments in all courses, except in LITR courses. Students must have taken SPAN 022 or 023 before they can take an advanced literature or film course in Spanish unless they receive special permission from the instructor. Courses numbered 50 to 89 belong to the same level of complexity, requiring the same level of preparation. The numbering does not imply a sequence.

## SPAN 001-002. Intensive First Year of

 SpanishStudents who start in the SPAN 001/002 sequence must complete SPAN 002 to receive credit for SPAN 001.
Note: SPAN 001 is offered in the fall semester only. Students must take SPAN 001 before
proceeding to SPAN 002 . This course is intended for students who begin Spanish in college. The first year of Spanish is designed to encourage the development of communicative proficiency through an integrated approach to the teaching of all four language skills-listening and understanding, reading, writing, and speaking. It also fosters awareness of the Spanish-speaking world through authentic cultural materials (films, music, news) and information, thus deepening the student's living understanding of the multi-faceted Spanish-speaking world.
1.5 credits.

## SPAN 001.

Offered each fall.
1.5 credits.

Fall 2014. Gras-Velázquez, Chindemi Vila.
SPAN 002.
Offered each spring.
1.5 credits.

Spring 2015. Gras-Velázquez, Chindemi Vila.
SPAN 002B. Intensive Spanish for Advanced Beginners
SPAN 002B is intended for those students who have had at least a year of Spanish but have not yet attained the level of SPAN 003. This intensive, accelerated course covers the materials of SPAN 001 / SPAN 002 in one semester, allowing for the review of basic concepts learned in the past. It encourages development of communicative proficiency through an interactive task-based approach, and provides students with an active and rewarding learning experience as they strengthen their language skills and develop their cultural competency. Engaging, award-winning shortsubject films from various Spanish-speaking countries are integrated into the lessons, serving as springboards for the vocabulary, grammar, and cultural topics presented. After completing this course, students will be prepared to take SPAN 003 and further advanced courses.
Offered each fall.
1.5 credits.

Fall 2014. Gras-Velázquez, Vargas.
SPAN 003. Intensive Intermediate Spanish SPAN 003 is an intensive third semester Spanish course for students who seek to develop fluency and accuracy in order to express, interpret, and negotiate meaning in context. The course presents a functionally sequenced grammar review and expansion that builds on basic concepts. Special emphasis will be placed on the basic skillslistening, speaking, reading, and writing-as building blocks toward proficiency and communication.
Offered each semester.
1.5 credits.

Fall 2014. Buiza, Chindemi Vila. Spring 2015. Buiza, Chindemi Vila.
SPAN 004. Intensive Advanced Spanish
This course is designed for students who have already learned the basic aspects of Spanish grammar. Through careful attention given to literary texts, films, and cultural media, the students develop further their writing and oral skills in Spanish. The course focuses on providing myriad opportunities for students to integrate an advanced understanding of grammar with communication-oriented activities, therefore allowing for the expression of advanced concepts and ideas in speech and writing that will enable students to take upper-level Spanish courses in literature and culture.
Note: Students who receive a final grade of "B-" or below in SPAN 004 need to take SPAN 008 as the next course in language sequence. Students
who receive a final grad of "B" or higher in SPAN 004 may continue to SPAN 010 or SPAN 011.
Offered each semester.
1.5 credits.

Fall 2014. Valencia, Vargas.
Spring 2015. Valencia, Vargas.

## SPAN 006A. Spanish Communication Workshop

An exciting course that effectively stimulates lively conversational Spanish. This course meets once a week for 1.5 hours; the class will be divided into small groups to facilitate discussion. The aim of the course is for the student to acquire well-rounded communication skills and sociocultural competence. The selected materials (newspapers, movies, music, literature, etc.) seek to stimulate students' curiosity and engagement with the ultimate goal of awakening a strong desire to express themselves in the language. Note: Upon returning from abroad, Spanish majors and minors must enroll in a one-credit Spanish course. This course is not appropriate for native speakers. SPAN 006A can be taken only once. Prerequisite: SPAN 004 or the equivalent or permission of the instructor.
0.5 credit.

Spring 2015. Vargas.

## SPAN 008. Spanish Conversation and

 CompositionRecommended for students who have finished SPAN 004, have received a 5 in the AP/IB exam or want to improve Spanish oral and written expression. This is a practical course for writing and rewriting in a variety of contexts, and it will prepare the student to write at an academic level of Spanish. It includes a review of grammar and spelling, methods for vocabulary expansion, and attention to common errors of students of Spanish living in an English-speaking society. Films and
literary texts will serve as a stimulus for advanced conversation with the goal of improving fluency and comprehension in Spanish.
Prerequisite: SPAN 004 or the equivalent or permission of the instructor.
Offered each semester.
Writing course.
1 credit.
Fall 2014, spring 2015. Martínez.
SPAN 009. First-Year Seminar: A New World: Conquests, Encounters and Dialogues in and around Latin America (W) (Cross-listed as LITR 009S)
In this first-year seminar we will explore the New World that resulted from the "discovery," colonization and exploitation of Latin America by the Europeans, particularly the Spanish. The encounter between the "Old" and the "New" Worlds was a two-way exchange in which new cultures emerged from the ruins of those destroyed, and the way of conceiving of the world and the self was utterly transformed for all involved. We will read texts by Europeans who encountered others and imposed upon them, but also texts by the defeated, where they tell their side of the story. Furthermore, we will pay special attention to those subjects in between different worlds, from Florida and Peru to Mozambique and Japan. Readings include texts by Columbus,
Cortés and Las Casas; Aztecs, Mayans and Incas; and More, Montaigne and Shakespeare. In English.
Writing course.
Eligible for LASC Credit.
1 credit.
Fall 2014. Valencia.
SPAN 010. En busca de Latinoamérica
This course seeks to provide students with a critical understanding of Latin America and to introduce its cultural history. Through a multidisciplinary perspective, we will study the interaction of social, political, ethnic, and gender dynamics and its resulting transformations in Latin America. After a study of pre-European contact and Amerindian civilizations, we will examine critically the moment of contact between the Old and the New World and the ensuing conflicts that characterized the three centuries of colonial rule in Latin America. Later, we will focus on the nation building process and the cultural campaigns of turn-of-the-century elites, the causes and consequences of U.S. interventions, the dilemmas of economic development, the rise of state terror, and the lives of transnational migrants today. Lectures and textbook readings provide a panoramic analysis of complex cultural processes (colonialism, transculturation, modernization, globalization, etc.); documentaries and films
provide other points of entry as we think through the processes that have shaped Latin America.
Prerequisite: SPAN 004 or the equivalent or permission of the instructor.
Offered each fall.
Writing course.
Eligible for LASC credit.
1 credit.
Fall 2014. Buiza.

## SPAN 011. Culturas de España

Embark on a cultural journey through Spain! Focusing primarily on transcultural and interdisciplinary perspectives, we will explore topics pertaining to all periods of Spanish history, society, culture, literature, politics, art, music, and film. We will devote special attention to contemporary Spanish film and current events. We will study these aspects in relation to different regions (Cataluña, Andalucía, Galicia, País Vasco, and Castilla) and particular cities (Madrid,
Barcelona, and Sevilla). We will examine how the medieval concept of Spain ("las Españas") may still apply today with respect to the linguistic, cultural, ethnic, social, and political diversity within the Iberian Peninsula. Other topics for exploration include migration and the emergence of hybrid identities, including those pertaining to culture, gender, and sexuality. Students will develop advanced skills in speaking, writing, and reading in Spanish.
Prerequisite: SPAN 004 or the equivalent or permission of the instructor.
Offered each spring.
Writing course.
1 credit.
Spring 2015. Guardiola.

## SPAN 022. Introducción a la literatura

 españolaThis course covers representative Spanish works from medieval times to the present. Works in all literary genres will be read to observe times of political and civic upheaval, of soaring ideologies and crushing defeats that depict the changing social, economic, and political conditions in Spain throughout the centuries. Each reading represents a particular literary period: middle ages, renaissance, baroque, neo-classicism, romanticism, realism, naturalism, surrealism, postmodernism, etc. Emphasis on literary analysis to introduce students to further work in Spanish literature.
Prerequisite: SPAN 004 or the equivalent or permission of the instructor.
Offered each fall.
Writing course.
1 credit.
Fall 2014. Guardiola.

## SPAN 023. Introducción a la literatura

## latinoamericana

This introduction to the study of Latin American literature and related visual documentation will place special emphasis on the changing relationships between aesthetics and politics. We will analyze different genres and artistic styles that emerge within the sociocultural sphere in moments of political crisis, such as the independence from Spain, the Mexican and Cuban revolutions, the dictatorships of the Southern Cone, migration, and other contemporary social processes. Within this framework, we will discuss the work of major writers (Borges, García Márquez, Vargas Llosa, Fuentes, Neruda) as well as emerging writers. Since we will also be mapping the representation of race, class, and gender, close attention will be given to selected works in literary theory, gender and queer theory, and cultural studies.

Eligible for LASC credit.
Prerequisite: SPAN 004 or the equivalent or permission of the instructor.
Offered each spring.
Writing course
1 credit.
Spring 2015. Martínez.

## SPAN 024A. Foreign Language Teaching

 and Pedagogy(Cross-listed as EDUC 072)
This course has two elements that are developed together throughout the course of the semester. Students can serve the Swarthmore community by teaching a foreign language to local elementary school students in an after-school program that meets two times/week. Students must teach for the entire 6-week session, two days per week (M/W or $\mathrm{T} / \mathrm{Th}$ ). During the evening pedagogy sessions held on campus, we will discuss writing weekly lesson plans, foreign language acquisition in children, teaching methodologies and approaches. We use a common goal-oriented curriculum among all the languages. Students must register for the language or educational studies course that they will be teaching and for a service time (A) M/W or (B) T/Th.
0.5 credit.

Spring 2015. Staff.

## SPAN 049. Cervantes' Don Quixote: The

 Narrative Quest(Cross-listed as LITR 049S)
What is it about Don Quixote's tilting at windmills and acting as if life followed the rules of fiction that has captivated the imagination of so many writers and thinkers ever since it was written in Spain four hundred years ago? This course
explores Cervantes's Don Quixote (1605-1615)
through theoretical texts, from Bakhtin to
Foucault, from Lukacs to Borges, in order to think
about Cervantes's innovations in narrative technique, the possibility of interpretation, and the nature of fiction and reality. Students will acquire tools of literary analysis and theory. In English.
1 credit.
Spring 2015. Valencia.

## SPAN 063. Cine Contemporáneo español

Following dictator Franco's death in 1975, Spain's transition to democracy was characterised by two distinct singularities: a sudden moral, sexual, and political liberation and, simultaneously, a collective social and political 'pact of oblivion', which indefinitely postponed any national reckoning by Spain with its dictatorial past. This course studies the films of post-Franco Spain, which are at once bursting with themes of liberation yet haunted by the ghosts of its recent past. We will chart the development of Spanish culture through the examination and interpretation of 1990s and 2000s Spanish films. Students will become familiar with important Spanish topics such as national stereotypes, European integration, violence, race, sexual identities, and gender relations, as well as relevant concepts in Film Studies such as cinematic genre, gaze theory, and spectatorship.
Eligible for FMST credit
1 credit
Spring 2016. Gras-Velázquez.

## SPAN 066. Escritoras españolas: una voz

 propiaIn this course we will explore the work of representative Spanish women writers of the last three centuries in order to study the development of female self-awareness. We will read texts by Carolina Coronado, Gertrudis Gómez de Avellaneda, Emilia Pardo Bazán, Mercé Rodoreda, Esther Tusquets, Carme Riera, Almudena Grandes, etc. The main objective of the course is to analyze female discourse within the historical, psychoanalytical, metafictional and allegorical realm of the texts to find multiple female voices.
Eligible for GSST credit.
1 credit.
Fall 2014. Guardiola.

## SPAN 067. La Guerra civil en la literatura y el cine

A literary and filmic study of different works generated by the Spanish Civil War (1936-1939).
We will contemplate the antagonistic
interpretations of the conflict itself, its roots, and its impact for a better understanding of modern Spain. We will study the themes and questions of the war echoed in Spanish poetry, short fiction, novels, and films from the time of the war up through the present day. Readings will include works by Machado, Cernuda, Hernández, Sender, Matute, Orwell, Laforet, Llamazares, Mendez, etc.

Films will include documentaries as well as classic and contemporary features.
1 credit.
Fall 2015. Guardiola.

## SPAN 069. Cartografías urbanas

The city as a cultural artifact offers writers myriad narrative possibilities; mere location, cultural symbolism or the link for values and concepts that determine the human being's place in its own society and historical moment. We will explore cultural representations of the city as an icon of industrialization in the nineteenth century and the declining of the modern city and its narratives in post-industrial and post-colonial times. Cultural cartographies of the city will help us to better understand new urban configurations and subjectivities. The discussion will focus on Madrid, Barcelona and other Spanish cities of the 19 th, 20th and 21 st centuries. We will see urban representations in novels by Galdós, Pardo Bazán, Baroja, Laforet, Cela, Rodoreda, Roig, Mendoza and representative films.
1 credit.
Spring 2015. Guardiola.

## SPAN 070. Género y sexualidad en Latinoamérica

In recent years, sexual minorities achieved major political victories in several Latin American countries, which opened a new social and legal horizon not only for them but also for the society as a whole by strengthening democratic values.
This course seeks to analyze the complex sociopolitical and cultural process that enabled these changes, and to challenge preconceived notions about gender and sexuality in Latin American shaped in the "progressive" center. A selected body of literature, essays and films will allow us to study the cultural politics of gender and sexuality in Latin America. We will explore these issues through theoretical concepts provided by Latin Americanists active in such fields as cultural studies, history, literary criticism, queer studies, and other relevant disciplines.
Eligible for LASC credit.
1 credit.
Fall 2014. Martínez.

## SPAN 073. El cuento latinoamericano

We will study the modern and contemporary short stories that have transformed Latin American literature and moved its fiction into the forefront of world literature. By focusing on close reading and analysis, we will outline the distinctive characteristics of the Latin American short story and trace its development. We will examine the thematic issues and narrative features that characterize works belonging to Fantastic Literature, Magical Realism, the Boom and PostBoom, and place them within their particular historical and cultural contexts. Authors will
include Horacio Quiroga, Jorge Luis Borges, Juan Rulfo, Gabriel Garcia Márquez, Julio Cortázar,
Rosario Ferré, and Ana Lydia Vega, among others.
This course offers students a deeper appreciation of regional differences and cultural richness in Latin America as revealed in the short-story genre. Eligible for LASC credit.
1 credit.
Fall 2015. Martínez.

## SPAN 074. Queer Issues in Latin American

 Literature \& Cinema(Cross-listed as LITR 074S)
This course will map new forms of representation and interpretation at play in a set of queer issues emerging on recent Latin American literature and cinema. Emphasis will be on gay, lesbian,
bisexual, and transgender subjectivities. The aim is not merely assembling a corpus of readings around the notion of minority sexualities but to analyze how sexuality is culturally constructed in specific spatial and temporal geographies. We will also investigate the ways in which literary genres are disturbed and redeployed by queer interventions, and how cinema becomes a privileged medium for empowerment and visibility. Taught in English. Eligible for LASC and GSST credit. 1 credit.
Spring 2016. Martínez.

## SPAN 082. México lindo y maldito:

 Representaciones culturales de la Ciudad de MéxicoThis course explores the complex cultural representations of Mexico City, where preColumbian traditions meet Western
hypermodernity in an atmosphere of ritualized chaos, tumultuous politics, choking pollution, and overpopulation. This course studies literature, urban chronicles, and films that treat Mexico's megalopolis as their central figure. Readings will also include theoretical texts that will help us understand the different socioeconomic and cultural layers that shape the city and its inhabitants. Main topics to explore include: modernization, neoliberalism, social inequality, urban society, social degradation, and cultural identity.
Eligible for LASC credit.
1 credit.
Fall 2015. Buiza.
SPAN 087. Cruzando fronteras: migración y transnacionalismo en el cine mexicano
This course studies Mexican films and
documentaries that engage issues of migration and transnationalism. The aim is to understand how these cinematic genres portray the complexities of cultural identity and the social and interpersonal struggles caused by displacement and globalization. We will also look at how some

Mexican communities have been transformed by the consequences of migration to the U.S. In addition, the course will incorporate border literature and Mexican music that add different dimensions to the themes explored in the course. Eligible for LASC credit.
1 credit.
Spring 2015. Buiza.

## SPAN 088. Pasados desgarradores:

## trauma y afecto en la literatura

 centroamericana de posguerraThis course focuses on contemporary Central American literature. It begins with the revolutionary poetry, narrative of resistance, and testimonio that emerged out of the sociopolitical turmoil of the isthmus during the decades of war, revolutions, and genocide. We will then study the atmosphere of disenchantment during the postwar period and the aesthetic shift in representations of trauma, violence, and disaffection. We will study novels, short stories, poems, films, music, and read scholarly articles to understand the sociohistorical and literary context of the war and the postwar periods in Central America.
Eligible for LASC credit.
1 credit.
Fall 2014. Buiza.

## Seminars

Students wishing to take seminars must have completed at least one course in Spanish numbered 030 or above. Students are admitted to seminars on a case-by-case basis by the instructor according to their overall preparation.

## SPAN 103. Horacio Castellanos Moya:

 Centroamérica en las venasThis seminar focuses on the literary work of Horacio Castellanos Moya, one of Central America's most prominent and controversial writers, whose literature has become internationally recognized. His narrative is often piercingly sarcastic, crude and raunchy and always unsettling. By studying Castellanos Moya's narratives and self-destructive characters, the course will explore the social disintegration and legacy of violence left by the decades of civil wars in Central America. The course will examine his novels and essays, and will incorporate recent literary criticism and theoretical approaches on trauma, affect, and violence.
Eligible for LASC credit.
2 credits.
Spring 2016. Buiza.

## SPAN 108. Jorge Luis Borges

This seminar focuses on Jorge Luis Borges, one of the most influential writers of the 20th century. He devoted his entire life to literature, as a writer but also as an irreverent and subversive reader. None

## MLL: Spanish

of his lines, none of his declarations happened inadvertently. Hated or held dear, Borges is incessantly quoted. The objective of this course is to read Borges from the double perspective required by his worldwide fame: as a universal writer who transcends national borders, but also as a writer that seeks to reinvent the history and the traditions of his own country, Argentina.
Eligible for LASC credit.
2 credits.
Spring 2015. Martínez.

## Spanish Courses Not Currently <br> Offered

SPAN 060. Memoria e identidad
SPAN 061. El "otro" en la literatura y la cultura
SPAN 072. Seducciones literarias-traiciones
fílmicas
SPAN 074. Laberintos borgeanos
SPAN 076. La novela latinoamericana
SPAN 077. Latinoamérica queer: cine, literatura y
cultura
SPAN 080. Los hijos de la Malinche:
Representaciones culturales de la Revolución
Mexicana
SPAN 083. Género, historia e identidad: literatura centroamericana escrita por mujeres
SPAN 084. México, 1968: La violencia de ayer y hoy
SPAN 104. La voz de la mujer a través de los siglos
SPAN 105. Federico García Lorca
SPAN 107. Héroes y villanos: el siglo XIX
español y la democratización literaria
LITR 075S. Borges: Aesthetics \& Theory
LITR 076S. Latino and Latin American
Sexualities

Music and Dance

## Music

GERALD LEVINSON, Professor of Music
THOMAS WHITMAN, Professor of Music ${ }^{3}$
BARBARA MILEWSKI, Associate Professor of Music and Chair
JONATHAN KOCHAVI, Assistant Professor of Music
MICAELA BARANELLO, Visiting Assistant Professor of Music
MARK LOMANNO, Visiting Assistant Professor of Music and Mellon Post-Doctoral Fellow
JANICE HAMER, Visiting Associate Professor of Music (part time)
ANDREW HAUZE, Associate in Performance
MARCANTONIO BARONE, Associate in Performance (part time)
I NYOMAN SUADIN, Associate in Music and Dance Performance
JOSEPH GREGORIO, Associate in Performance (part time)
BERNADETTE DUNNING, Administrative Coordinator
SUSAN GROSSI, Administrative Assistant

## Dance

SHARON E. FRIEDLER, Professor of Dance, Director of the Dance Program
KIM D. ARROW, Associate Professor of Dance ${ }^{2}$
PALLABI CHAKRAVORTY, Associate Professor of Dance
GREGORY KING, Visiting Assistant Professor and Consortium on Faculty Diversity Fellow
JUMATATU POE, Assistant Professor of Dance (part time)
JON SHERMAN, Associate in Dance Performance (part time)
LADEVA DAVIS, Associate in Dance Performance (part time)
NI LUH KADEK KUSUMA DEWI, Associate in Dance Performance (part time)
DOLORES LUIS GMITTER, Associate in Dance Performance (part time)
HANS BOMAN, Dance Accompanist
BERNADETTE DUNNING, Administrative Coordinator
SUSAN GROSSI, Administrative Assistant
TARA WEBB, Arts Publicity and Costume Shop Supervisor
${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

## Music

The study of music as a liberal art requires an integrated approach to theory, history, and performance, experience in all three fields being essential to the understanding of music as an artistic and intellectual achievement. Theory courses train students to understand and hear how compositions are organized. History courses introduce students to methods of studying the development of musical styles and genres and the relationship of music to other arts and areas of thought. The department encourages students to develop performing skills through private study and through participation in the chorus, gamelan, jazz ensemble, orchestra, wind ensemble, and the Fetter Chamber Music Program, which it staffs and administers.
The department assists instrumentalists and singers to finance the cost of private instruction. (See "Individual Instruction" under the heading "Credit for Performance.")

## The Academic Program

## Course Major

The music major curriculum normally includes the following components. However, we welcome
individualized proposals, which will be evaluated and approved on the basis of consultations with the music faculty. We continue to emphasize the importance of depth and mastery of musical skills and understanding, and we also recognize the value of studying the diversity of musical cultures.
A. Required. 5 courses in harmony and counterpoint plus musicianship sections (MUSI 040 ). MUSI 040 may be taken for 0.0 or 0.5 credit at the student's option.

- MUSI 011 and 040A
- MUSI 012 and 040B
- MUSI 013 and 040C
- MUSI 014 and 040D
- MUSI 115
B. Required. 4.5 courses in Music History and Literature:
- MUSI 020 (Medieval and Renaissance)
- MUSI 094 (Senior Research Topics in Music)
plus at least three of the following:
- MUSI 021 (Baroque and Classical)
- MUSI 022 (19th-Century Europe)
- MUSI 023 (20th Century)
- Any other history course numbered above 023
- Courses with lower course numbers in areas such as Jazz or World Music, including extra or higher-level work, with approval of the instructor.


## Course Majors are strongly advised to take 5

 history courses if possible.C. World Traditions Component. This
requirement may be fulfilled in either of two ways:

- One of the 4.5 course listed in category B, above, in Music History and Literature is to be a course in non-Western traditions numbered above 023; OR
- Two semesters of participation in the Gamelan,

Taiko, or Dance/Drum ensembles. (This also helps fulfill the ensemble requirement in category D, below).
D. Additional Requirements for Course Majors:

- Keyboard skills
- Score reading or MUSI 018: Conducting and Orchestration
- Department ensemble for at least four semesters
- Senior comprehensive examination (MUSI

094, 0.5-credit course)
The following is a description of these additional requirements:
Keyboard skills. This program is designed to develop keyboard proficiency to a point where a student can use the piano effectively as a tool for studying music. Students learn to perform repertoire and, in addition, play standard harmonic progressions in all keys. The department offers a free weekly private lesson to any student enrolled in a Harmony and Counterpoint numbered 011 or higher who needs work in this area and requires it of all students in MUSI 012. Music majors and minors who have completed the theory sequence but who need further instruction are still eligible. No academic credit is given for these lessons. All music majors are expected to be able to perform a two-part Invention of J. S. Bach (or another work of similar difficulty) by their senior year.
Score reading. By the end of their senior year, all majors are expected to be able to read an orchestral score that includes c-clefs and some transposing instruments. Students may take MUSI 018 (Conducting and Orchestration) to satisfy this requirement.
Department ensemble. The department requires majors and minors to participate in any of the departmental ensembles (Orchestra, Chorus, Wind Ensemble, Jazz Ensemble, and Gamelan). We also recommend that students participate in other activities, such as playing in Chamber Music ensembles or seeking out service-learning experiences that incorporate music.
Comprehensive examination. During their senior year, majors in the Course Program will take the departmental comprehensive examination, which normally consists of the study of a single musical
work (selected in advance by the student, subject to the approval of the department) which demonstrates skills in the three areas of analysis, historical research, and performance. Majors in course will enroll in MUSI 094 (Senior Research Topics in Music) in the spring semester of their senior year to help them prepare for their senior comprehensive examination.

## Course Minor

Required. At least two courses in harmony and counterpoint plus musicianship sections (MUSI 040):

- MUSI 011 and 040A
- MUSI 012 and 040B

Required. At least two courses in music history and literature:

- MUSI 020 (Medieval and Renaissance)
- MUSI 021 (Baroque and Classical)
- MUSI 022 (19th-Century Europe)
- MUSI 023 (20th Century)
- Another history course numbered above 023 (or
a lower-level history course, with approval of the faculty)
Required. At least one of the following:
- Harmony and counterpoint (MUSI 013 or higher)
- Upper-level history course
- MUSI 019 (Composition)


## Additional Requirements

- Department ensemble for at least two semesters; and at least one of the following, subject to departmental approval of a written proposal:
- Keyboard skills
- Service-learning project in music
- Senior recital
- Special project in music


## Honors Major

Summary: The music major in honors is identical to the music major in course in its prerequisites, required coursework, and requirements for keyboard skills, score reading, and Department Ensemble membership. The honors major differs in that there is no senior comprehensive exam. Instead, honors majors do three honors preparations in music.

## Three Honors Preparations

- Music theory. A 2-credit honors preparation in music theory is normally based on MUSI 015 in combination with one lower-level harmony and counterpoint course.
- Music history. A 2-credit honors preparation in music history may be based on any music seminar numbered 100 or higher or on any other music history course when augmented by concurrent or
subsequent additional research, directed reading, or tutorial, with faculty approval.
- Elective (may be based on any of the following):
- At least two semesters of MUSI 019 (Composition)
- An additional preparation in another area of music history
- A senior honors recital

A 2-credit senior honors recital preparation is available to only students who have distinguished themselves as performers. It is, therefore, limited to those who have won full scholarships through MUSI 048. Students who wish to pursue this option must follow all of the steps listed in the departmental guidelines for senior recitals (see department website) and obtain approval of their program from the music faculty during the semester preceding the proposed recital. They should register for MUSI 099: Senior Honors Recital. This full credit, together with at least another full credit of relevant coursework in music, will constitute the 2-credit honors preparation. One faculty member will act as head adviser on all aspects of the honors recital. As part of the honors recital, the student will write incisive program notes on all of the works to be performed. This work will be based on substantive researchincluding analytical as well as historical workand will be overseen by one or more members of the music faculty.
Students are encouraged to propose honors preparations in any areas that are of particular interest, whether or not formal seminars are offered in those areas. The music faculty will assist in planning the most appropriate format for these interests.

## Thesis / Culminating Exercise

Oral examinations are given for all honors preparations in music. Written examinations, in addition to oral examinations, are given only for those preparations based on courses or seminars.

## Honors Minor

Required. Four courses in harmony and counterpoint plus musicianship sections (MUSI 040):

- MUSI 011 and 040A
- MUSI 012 and 040B
- MUSI 013 and 040C
- MUSI 014 and 040D

Required. Two courses in music history and literature:

- MUSI 020 (Medieval and Renaissance)
- MUSI 021 (Baroque and Classical)
- MUSI 022 (19th-Century Europe)
- MUSI 023 (20th Century)
- Another history course numbered above 023

One honors preparation

- Music theory, music history, or elective

The possibilities for preparations are the same as those listed above for major in the Honors Program.
Additional Requirements, same as for course minors.

- Departmental ensemble for at least two semesters and at least one of the following, subject to departmental approval:
- Keyboard skills
- Service-learning project in music
- Senior recital
- Special project in music


## Special Major

The department welcomes proposals for special majors involving music and other disciplines. Recent examples include the following:

- Special major in music and education
- Special major in enthnomusicology

Other special majors are possible. For more information, contact the department chair.

## Application Process Notes for the

 Major or the MinorWe do not have a minimum grade point average (GPA) for admission as a major or minor. In its place is a consensus of music faculty that the student can do good work in the discipline. The situation is perhaps more complex in music than in other fields because we think that a major (or minor) should have basic musical as well as purely intellectual abilities, not all of which can be measured by a GPA. We do consider the likelihood of a student's passing the Comprehensive Examination. Students applying for admission as majors in the Honors Program should have done exceptionally high-quality work in the department and should have shown strong self-motivation.
Prerequisites for acceptance into the program: MUSI 011/040A and one Music History course numbered 020 or above. These courses are strongly recommended for first-year students and should be completed before the junior year. If a student has not completed all of these prerequisites at the time of an application for a major/minor, but has done good work in one or more courses in the department, he or she may be accepted on a provisional basis.

## Off Campus Study/Language Study

Students are encouraged to seek possibilities for off campus study, in accordance with their particular interests, in consultation with the music faculty and the off-campus study adviser.

Students are advised that many graduate programs in music require a reading knowledge of French and German.

## Additional Resources

A unique resource of the department is its ensemble in residence, Orchestra 2001, directed by Professor Emeritus James Freeman. This nationally renowned ensemble offers an annual concert series at the College, focusing on contemporary music. The series features distinguished soloists and often includes advanced Swarthmore students in its concerts.
Special scholarships and awards in music include the following (see Distinctions, Awards, and Fellowships):

The Renee Gaddie Award
Music 048 Special Awards
The Boyd Barnard Prize
The Peter Gram Swing Prize
The Melvin B. Troy Prize in Music and Dance

## Credit for Performance

Note: All performance courses are for half-course credit per semester. No retroactive credit is given for performance courses.

Individual Instruction (MUSI 048)
Academic credit and subsidies for private instruction in music are available to students at intermediate and advanced levels. For further details, consult the MUSI 048 guidelines on the Music Program website.

Orchestra, Chorus, Wind Ensemble, Gamelan, Chamber Music, Jazz Ensemble Students may take Performance Chorus (MUSI 043), Performance Orchestra (MUSI 044), Performance Jazz Ensemble (MUSI 041), Performance Wind Ensemble (MUSI 046), Performance Chamber Music (MUSI 047), or Performance Gamelan (MUSI 049A) for credit with the permission of the department member who has the responsibility for that performance group. The amount of credit received will be a half-course in any one semester. Students applying for credit will fulfill requirements established for each activity (i.e., regular attendance at rehearsals and performances and participation in any supplementary rehearsals held in connection with the activity). Students are graded on a credit/no credit basis.
Students wishing to take Chamber Music (MUSI 047) for credit must submit to the chamber music coordinator at the beginning of the semester a proposal detailing the repertory of works to be rehearsed, coached, and performed during the semester. It should include the names of all student performers and the proposed performance dates, if different from the Elizabeth Pollard Fetter

Chamber Music Program performance dates. One semester in a Department Ensemble is a prerequisite or co-requisite for each semester of MUSI 047. This applies to all students in each Fetter Chamber group. It is expected that Fetter students in Department Ensembles will play the same instrument/voice in both activities.
A student taking MUSI 047 for credit will rehearse with his or her group or groups at least 2 hours every week and will meet with a coach (provided by the department) at least every other week. All members of the group should be capable of working well both independently and under the guidance of a coach. It is not necessary for every person in the group to be taking MUSI 047 for credit, but the department expects that those taking the course for credit will adopt a leadership role in organizing rehearsals and performances. Note: MUSI 047 ensembles do not fulfill the ensemble requirement for lessons under MUSI 048.

## Courses and Seminars

Introductory Courses without Prerequisite

## MUSI 001. Introduction to Music

This course is designed to teach intelligent listening to music by a conceptual rather than historical approach. Although it draws on examples from popular music and various nonWestern repertories, the course focuses primarily on the art music of Europe and the United States. Prior musical training is not required. It is assumed that MUSI 001 students will not know how to read music. This course is taught with little or no use of musical notation.
1 credit.
Not offered 2014-2015.
MUSI 002B. Reading and Making Music: The Basics of Notation
An introduction to the elements of music notation, theory (clefs, pitch, and rhythmic notation, scales, keys, and chords), sight singing, and general musicianship. Recommended for students who need additional preparation for MUSI 011 or to join the College chorus.
1 credit.
Fall 2014. Hauze.
MUSI 003. Jazz History
This course traces the development of jazz from its roots in West Africa to the free styles of the 1960s. The delineation of the various styles and detailed analysis of seminal figures are included. Emphasis is on developing the student's ability to identify both style and significant musicians.
1 credit.
Not offered 2014-2015.

## MUSI 003B. Jazz and the Trans-Atlantic

## African Diaspora

From its earliest formations, jazz music has been inherently transcultural and particularly elemental to the cultural identity of individuals and communities identifying with the African Diaspora. This course posits improvisation-that is, encountering and working around borders while reacting to the impeding and facilitating possibilities they present-as a necessary and highly potent condition of cultural liminality.
Accordingly, this course suggests that musical and cultural improvisatory performances can carve out discursive space within the socio-political systems that marginalize these communities. Drawing on the methodologies and scholarship of social sciences and the performing arts, we will explore this dynamic through interdisciplinary case studies in the Trans-Atlantic African Diaspora, with attention to local interpretations of global jazz culture and fusions of local music with jazz performance aesthetics. Also, the course will critically engage with the politics of collective identity, exploring how communities drawn together through a common genre marker or diasporic affiliation can themselves reproduce marginalizing hierarchies.
1 credit.
Not offered 2014-2015.

## MUSI 004A. Opera

Combine great singing with the vivid colors of an orchestra, with acting and theater, with poetry, dance, painting, spectacle, magic, love, death, history, mythology, and social commentary, and you have opera: an art of endless fascination. This course will survey the history of opera (from Monteverdi through Mozart, Wagner, and Verdi to Gershwin and Stravinsky), with special emphasis on and study of scenes from selected works. 1 credit.
Fall 2014. Milewski.

## MUSI 004B. The Symphony

This course will examine the history of the symphony from its beginnings in music of the late Baroque period to the end of the 20th century. We will examine a number of important symphonic works by such composers as Haydn, Mozart, Beethoven, Berlioz, Brahms, Chaikovsky, Mahler, Shostakovich, and Gorecki in order to discuss issues of genre, form, and performance forces in the context of shifting historical and social trends. 1 credit.
Not offered 2014-2015.

## MUSI 005. U.S. Pop Music History

This course will feature a survey of U.S. popular music from the late 19th century to present day. Discussion of individual case studies of music, musicians, and communities-in-music and significant movements and musicians-such as
racial appropriation of R\&B in 1950s rock and the performance of gender in glam rock-and will also take a look at the process of history-making by studying lesser known artists and critiquing the exclusionary practices of canon formation. We will discuss popular music as an industry and the effects of capitalist commerce on music-making, as well as political and socio-cultural interventions on music-making and distribution. Examples will include radio payola, legislated censorship, intellectual property law, public noise ordinances, reality music television, and illegal file-sharing practices.
1 credit.
Fall 2014. Lomanno.

## MUSI 005C. Traditional Musics of World

 CulturesIntroduction to world music and ethnomusicology via a set of case studies on traditional music and music-making practices. This course stresses music as an integral to--constitutive of, rather than separate from--the culture in which it is rooted. Within this framework we will discuss how the concept of "tradition" does not necessarily imply historical fact, but can be more influenced by understandings of and nostalgic feelings about "the past" as commentary and critique of the present. The course's final project will consist of individual ethnographic projects, in which students engage with a local community group or musicians involved in some form of traditional music practice.
1 credit.
Spring 2015. Lomanno

## MUSI 006. The Arts as Social Change

(Cross-listed as DANC 004)
This course aims to bring together students with an interest in investigating and investing in social change work through the arts. Our seminar community will engage in discussion of readings and video viewings, will host and visit local leaders from the arts and social change movement, and will engage in fieldwork opportunities as required parts of the course. Papers, journals, and hands-on projects will all be included.
This course fulfills a prerequisite requirement for dance major and minors.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.

## MUSI 006B. Music of the Holocaust and

 World War II EraThis course will explore the various contexts and motivations for music making during the Holocaust and World War II era. In the universe of the Nazi ghettos and concentration camps, music was a vehicle for transmitting political rumors, controversies, stories, and everyday events as well
as a form of spiritual resistance. In the broader context of war, it was used for political and nationalist agendas. This course will draw on a wide range of music, from folk songs and popular hit tunes to art music intended for the concert stage.
1 credit.
Not offered 2014-2015
MUSI 007B. Beethoven and the Romantic Spirit
An introduction to Beethoven's compositions in various genres. We will consider the artistic, political, and social context in which he lived and examine his legacy among composers later in the 19th century (Berlioz, Chopin, the Schumanns, Brahms, Wagner, and Mahler).
Writing course.
1 credit.
Not offered 2014-2015.
MUSI 008B. Anatomy for Performers: Bones, Muscles, Movement (See DANC 008)
0.5 credit.

Not offered 2014-2015.
MUSI 009A. Music and Mathematics
This course will explore the basic elements of musical language from a scientific and mathematical perspective. We will work collaboratively to uncover relationships and features that are fundamental to the way that music is constructed. Although intended for science, mathematics, engineering, and other
mathematically minded students, the course will introduce all necessary mathematics; no specific background is required. Some knowledge of musical notation is helpful but not required. This course provides the necessary background to enable students to enroll in MUSI 011.
1 credit.
Not offered 2014-2015.

## Theory and Composition

Students who anticipate taking further courses in the department or majoring in music are urged to take MUSI 011 and 012 as early as possible.
Advanced placement is assigned on a case-by-case basis, after consultation with the theory and musicianship faculty. Majors will normally take MUSI 011 to 015.

## MUSI 011.01. Harmony, Counterpoint, and

 Form 1This course will provide an introduction to tonal harmony and counterpoint, largely as practiced in 18th- and 19th-century Europe. Topics include simple counterpoint in 2 parts, harmonization of soprano and bass lines in four-part textures,
systematic study of common diatonic harmonies, features of melody and phrase, and the Blues.
Prerequisites: Knowledge of traditional notation and major and minor scales; ability to play or sing at sight simple lines in treble and bass clef.
All MUSI 011 students must register for an appropriate level of MUSI 040A for 0 or 0.5 credit.
Keyboard skills lessons may also be required for some students.
1 credit.
Fall 2014. Kochavi.

## MUSI 011.02. Harmony, Counterpoint, and

 Form 1This seminar will provide an introduction to tonal harmony and counterpoint, largely as practiced in 18th- and 19th-century Europe. Topics include simple counterpoint in 2 parts, harmonization of soprano and bass lines in four-part textures, systematic study of common diatonic harmonies, features of melody and phrase, the Blues, and classical theme and variation techniques. Certain examples for analysis will be drawn from current repertoire of the College Orchestra, Chorus, and Jazz Ensemble.
Prerequisites: Knowledge of traditional notation and major and minor scales; ability to play or sing at sight simple lines in both treble and bass clef.
All MUSI 011 students must register for an appropriate level of MUSI 040A for 0 or 0.5 credit.
Keyboard skills lessons may also be required for some students.
1 credit.
Fall 2014. Kochavi.
MUSI 012. Harmony, Counterpoint, and Form 2
This course will provide continued work on tonal harmony and counterpoint, largely as practiced in 18th- and 19th-century Europe. Topics include two-voice counterpoint, harmonization of soprano and bass lines in four-part textures, phrase structure, small and large scale forms, modulation and tonicization, and analysis using prolongational reductions. We will also study minuet form in detail, culminating in a final composition project.
All MUSI 012 students must register for an appropriate level of MUSI 040B for 0 or 0.5 credit.

Keyboard skills lessons are required for all students in MUSI 012.
1 credit.
Spring 2015.Levinson.
MUSI 013. Harmony, Counterpoint, and Form 3
Continues and extends the work of Music 12 to encompass an expanded vocabulary of chromatic
tonal harmony, based on Western art music of the 18th and 19th centuries. The course includes analysis of smaller and larger works by such composers as Bach, Mozart, Beethoven, Schubert, Chopin, Liszt, Brahms, and Wagner; in-depth study of such large-scale topics as sonata form; and written musical exercises ranging from harmonizations of bass and melody lines to original compositions in chorale style.
All MUSI 013 students must register for an appropriate level of MUSI 040C for 0 or 0.5 credit.
Keyboard skills lessons may also be required for some students.
1 credit.
Fall 2014. Levinson.
MUSI 014. Harmony, Counterpoint, and Form 4
This course provides continued work in chromatic harmony and 18th-century counterpoint, largely as practiced in Europe. It will primarily take the form of a literature survey. For the first half of the semester, our focus will be on short pieces; during the second of the semester we will study keyboard fugues and other larger-scale works. This course includes a service-learning project.
All MUSI 014 students must register for an appropriate level of MUSI 040D for 0 or 0.5 credit.
Keyboard skills lessons may also be required for some students.
1 credit.
Spring 2015. Levinson.

## MUSI 017. Jazz Theory

A course designed for the analysis of the harmonic structures of jazz repertoire. This is neither an improvisation nor a performance course.
Prerequisites: MUSI 012 or instructor approval.
Basic keyboard skills and fluency on an instrument are required.
1 credit.
Not offered 2014-2015.
MUSI 018. Conducting and Orchestration This course approaches the understanding of orchestral scores from a variety of perspectives. We will study techniques of orchestration and instrumentation, both in analysis of selected works, and in practice, through written exercises. The history, and philosophy of conducting will be examined, and we will work to develop practical conducting technique. Score reading, both at the piano and through other methods, will be practiced throughout the semester.
Prerequisite: MUSI 012, or permission of the instructor.
1 credit.
Spring 2015. Hauze.

MUSI 061. Jazz Improvisation
A systematic approach that develops the ability to improvise coherently, emphasizing the Bebop and Hard Bop styles exemplified in the music of Charlie Parker and Clifford Brown.
Prerequisite: Ability to read music and fluency on an instrument.
1 credit.
Not offered 2014-2015.
MUSI 062. Proseminar in Jazz Studies: History, Theory, and Improvisation Designed as an intensive, seminar-style introduction to jazz studies, this course provides an overview of major styles, innovations, and scholarly theories of U.S. jazz through cultural history, music theory, and performance practice. Each unit and case study will draw equally on jazz scholarship and research, analytical listening and transcription, and an in-class performance lab. Individual class sessions will vary among seminar discussions, theory and analysis sessions, guest presentations, and performance workshops on improvisation. Students will complete both individual and group assessments, along with a culminating final project and presentation on a particular period or performer.
1 credit.
Not offered 2014-2015.

## History of Music

MUSI 020. Medieval and Renaissance

## Music

A survey of European art music from the late Middle Ages to the 16th century. Relevant extramusical contexts will be considered.
Prerequisite: MUSI 011 or the equivalent. 1 credit.
Not offered 2014-2015.
MUSI 021. Baroque and Classical Music
This course will survey European art music from the 16th-century Italian madrigal to Haydn's Creation. Relevant extramusical contexts will be considered.
Prerequisite: MUSI 011 or the equivalent. 1 credit.
Not offered 2014-2015.
MUSI 022. 19th-Century European Music
This survey considers European art music against the background of 19th-century Romanticism and nationalism. Composers to be studied include Beethoven, Schubert, Chopin, Berlioz, Robert and Clara Schumann, Wagner, Verdi, Brahms, Dvorak, Musorgsky, and Chaikovsky.
Prerequisite: MUSI 011 or the equivalent.
1 credit.
Fall 2014. Milewski.

MUSI 023. 20th-Century Music
A study of the various stylistic directions in music of the 20th century. Representative works by composers from Debussy, Stravinsky, and Schoenberg through Copland, Messiaen, and postwar composers such as Boulez and Crumb, to the younger generation will be examined in detail.
Prerequisite: MUSI 011 or the equivalent.
Writing course.
1 credit.
Spring 2015. Milewski.

## MUSI 024. Opera Production Workshop

 (Cross-listed as THEA 005)Opera is a collaborative art form, involving composing, writing, performing, stage directing, choreography and design. In this workshop-based class, students will gain a basic understanding of opera as an art form and experience all aspects of the rehearsal and production process. The class culminates in the performance of an original opera written, directed and performed by faculty and students in collaboration with students from a nearby elementary school.
Open to students with permission of the instructors.
1 credit.
Spring 2015. TBD.

## MUSI 025. American Musical Theater

Musical theater has often been considered a quintessentially American genre. But how has it helped Americans to understand America. This survey will trace the genre's musical and dramatic development and explore representations of race, ethnicity, gender, and sexuality. Musicals considered will include: Show Boat, Porgy and Bess, Cradle Will Rock, Oklahoma!, West Side Story, Sweeney Todd and Wicked. Students will have the opportunity to work with the department's Fall 2014 production of Guys and Dolls.
Prerequisite: MUSI 011 or permission of the instructor.
1 credit.
Fall 2014. Baranello.

## MUSI 030. Music of Asia

An introduction to selected musical traditions from the vast diversity of Asian cultures. Principal areas will include classical music of India, Indonesian gamelan from Bali and Java, ritual music of Tibet, ancient Japanese court music, Turkish classical music and others. These music will be studied in terms of their technical and theoretical aspects as well as their cultural/philosophical backgrounds. Western musical notation and terminology, including scale types and intervals, will be used. This course fulfills the World Traditions component of the music major.

Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.

## MUSI 033A. Caribbean/Latin America

This course will focus on the collective genius of the folk, traditional, and popular musics of Cuba and Brazil, such as Afro-Cuban and Afro-Brazilian religious music, changüí, son, danzón charanga, son montuno, timba, samba enredo, samba reggae, afoxé, bossa nova, capoeira, maracatú, mangue beat, pagode, and many others. Selected musical genres will be studied for their sounds and formal characteristics, as well as their cultural origins and histories, and occasionally, comparisons will be drawn with musical styles from the U.S., and musics of the respective immigrant populations in the U.S. will be discussed. The class will feature some hands-on demonstrations by guest artists and the instructor. Materials and assignments will include audio recordings, videos, journal articles, textbook chapters, and other writings, mostly drawn from the field of ethnomusicology.
Prerequisite: Knowledge of traditional music notation and major and minor scales.
Recommended, but not required: Knowledge of Spanish or Portuguese.
This course fulfills the world traditions component requirement for the music major.
1 credit.
Not offered 2014-2015.

## MUSI 035. Foundations of

 EthnomusicologyThis course provides an introduction to the history, methodologies, and theories of ethnomusicology. Through review and analysis of past case studies, we will discuss the development of the discipline, engaging with fundamental questions about the relationships among music, culture, scholarship, and advocacy. This course material and assessments will be designed in an interdisciplinary fashion, drawing primarily from music analysis and the social sciences. In addition to individual and collaborative assignments, students will produce ethnographic portfolios of a nearby group or community to be presented at the end of the semester.
1 credit.
Not offered 2014-2015.

## MUSI 038. Color and Spirit: Music of

 Debussy, Stravinsky, and Messiaen A study of 20th-century music focusing on the great renewal of musical expressions, diverging from the Austro-German classic-Romantic tradition, found in the works of these three very individual composers, as well as the connections among them, and the resonance of their music in the work of their contemporaries and successors. Prerequisite: MUSI 011 or the equivalent.1 credit.
Not offered 2014-2015.
MUSI 075. Special Topics in Music Theater
Available to students participating in the study abroad programs coordinated through Swarthmore in France, Ghana, India, or Japan.
Prerequisites: Consent of the dance program director and the faculty adviser for off-campus study.
1 credit.
Not offered 2014-2015.

## MUSI 091. Introduction to Performing Arts

## Education: Music

(Cross-listed as EDUC 071)
How do we learn in the performing arts? This course explores a range of performing arts issues confronting educators in theory and practice. While the focus is music, we will also consider dance and theater with the help of guest lecturers. We will look at primary education in the United States, and we will also touch upon some of the ways music is taught to older students, as well as in other cultures. Students will draw upon their own experiences as teachers and learners. The course will culminate in a collaborative teaching project in which our class as a whole will develop and implement a program of performing arts instruction for children in partnership with an urban public school.
While some prior study of music might be helpful,
it is not a prerequisite. This course is open to any
student who has taken at least one course in either education or music.
Writing course.
1 credit.
Not offered 2014-2015.
MUSI 091C. Special Topics (Music Education)
(Cross-listed as EDUC 091C)
With permission of the instructor, qualified students may choose to pursue a topic of special interest in music education through a field project involving classroom or school practice.
Open to any student who has taken at least one course in music.
Available as a credit/no credit course only.
0.5 credit.

Not offered 2014-2015.
MUSI 092. Independent Study 1 credit.

MUSI 093. Directed Reading
1 credit.

## MUSI 094. Senior Research Topics in

## Music

Required of all senior majors as preparation for the senior comprehensive in music.
0.5 credit.

Spring semester.

## MUSI 095. Tutorial

Special work in composition, theory, or history. 1 or 2 credits.

## MUSI 096. Senior Thesis

1 or 2 credits.

## MUSI 099. Senior Honors Recital

Honors music majors who wish to present a senior recital as one of their honors preparations must register for MUSI 099, after consultation with the music faculty. See Honors Program guidelines. 1 credit.

## Seminars

MUSI 102. Color and Spirit: Music of Debussy, Stravinsky, and Messiaen (See MUSI 038)
Prerequisite: MUSI 013 (concurrent enrollment possible by permission of the instructor).
1 credit.
Not offered 2014-2015.

## MUSI 103. Mahler and Britten

This course is an intensive study of the music of two seminal 20th-century composers. We will consider song cycles by both composers and their connections to larger genres: Mahler's symphonies and Britten's operatic works as well as the War Requiem.
Prerequisites: MUSI 011 to 014; a knowledge of German is recommended.
1 credit.
Not offered 2014-2015.
MUSI 104. Chopin
This course will provide an in-depth historical study of Chopin's music. We will examine the full generic range of Chopin's compositions, taking into account the various socio-cultural,
biographical and historical-political issues that have attached to specific genres. Throughout the semester we will also consider such broader questions as: why did Chopin restrict himself almost entirely to piano composition? How might we locate Chopin's work within the larger category of 19th-century musical romanticism? What does Chopin's music mean to us today?
Prerequisites: MUSI 011.
1 credit.
Not offered 2014-2015.

## MUSI 105. Music and War

For centuries, and across different cultures, music has both served war and illustrated its victories and terror. Music has also provided powerful commentary on war, articulating human pain and protest in equal measure. In this seminar we consider these functions in a range of musical works of the 20th century from popular songs, film shorts, and folk songs from around the world, to music composed in prisons and concentration camps and some of the greatest art music of the 20th century. We will begin our discussion with a brief excursion into previous periods and conclude with an examination of music's role during the war in Iraq.
Prerequisites: MUSI 011 or permission of the instructor.
1 credit.
Fall 2014. Baranello.
MUSI 115. Harmony, Counterpoint, and Form 5
Exploration of a number of advanced concepts in music theory including: the study and analytical application of post-tonal theory (including set theory and neo-Riemannian theory), the structure of the diatonic system, applications of theoretical models to rhythm and meter, and geometric models of musical progression.
Prerequisite: MUSI 014.
1 credit.
Fall 2014. Kochavi.
MUSI 118. Introduction to Composition Prerequisite: MUSI 011 and MUSI 012.
1 credit.
Not offered 2014-2015.
MUSI 119. Composition
Repeatable course.
Prerequisite: permission of the instructor. 1 credit.
Fall 2014 and spring 2015. Levinson.

## Performance

Note: The following performance courses are for 0.5 -course credit per semester.

MUSI 040. Elements of Musicianship Sight singing and rhythmic and melodic dictation. Required for all MUSI 011 to 014 students, with or without 0.5 credit. The instructor will place students at appropriate levels.
0.5 or 0.0 credit.

Fall 2014 and spring 2015. Hamer.
MUSI 041. Performance (Jazz Ensemble)
0.5 or 0.0 credit.

Fall 2014 and spring 2015. Shanefield.

MUSI 043. Performance (Chorus)
0.5 or 0.0 credit.

Fall 2014 and spring 2015. Gregorio.
MUSI 044. Performance (Orchestra)
0.5 or 0.0 credit.

Fall 2014 and spring 2015. Hauze.
MUSI 046. Performance (Wind Ensemble) 0.5 or 0.0 credit.

Fall 2014 and spring 2015. Hauze.
MUSI 047. Performance (Chamber Music)
(See guidelines for this course earlier.)
0.5 or 0.0 credit.

Fall 2014 and spring 2015. Johns.
MUSI 048. Performance (Individual Instruction)
Please consult the MUSI 048 guidelines on the Music Program website.
0.5 credit.

Each semester.
MUSI 049A. Performance (Balinese Gamelan)
Performance of traditional and modern compositions for Balinese Gamelan (Indonesian percussion orchestra). Students will learn to play without musical notation. No prior experience in Western or non-Western music is required. The course is open to all students.
Two (2) semesters of this course fulfills the World Traditions Component requirement for the music major.
0.5 or 0.0 credit.

Fall 2014 and spring 2015. Whitman.
MUSI 049B. Performance (African Dance

## Repertory Music Ensemble)

Performance of traditional and modern
compositions as accompaniment for and collaboration with the development of a dance piece for concert performance.
0.5 credit.

Not offered 2014-2015.
MUSI 050. Performance (Chamber Choir)
Students enrolled in MUSI 050 must also be enrolled in MUSI 043 (Performance Chorus). 0.5 or 0.0 credit

Fall 2014 and spring 2015. Gregorio.
MUSI 071. Salsa Dance/Drumming (See DANC 071)
0.5 credit.

Not offered 2014-2015.
MUSI 078. Dance/Drum Ensemble (See DANC 078)
0.5 credit.

Fall 2014. Osayande and guest artists.

## Dance

At Swarthmore, dance is a global discourse. The dance and music programs share an integrated approach to composition, history, performance, and theory in lecture/discussion and studio practice courses. We believe this is central to the understanding of dance as an artistic, intellectual, and social inquiry within a liberal arts context.
The Academic Program
The mission of the program is to offer students dance experiences that privilege a merging of embodied practice and history/theory in relation to more than one situated perspective (those listed above). Some courses concentrate on one cultural context only (this is true generally in history, repertory, and technique). Others put a variety of perspectives in conversation (choreographic laboratories, improvisation, history, repertory, and theory).The role of dance as an agent of social change is also present in Swarthmore dance offerings. All dance studies courses engage students in an investigation of the relationship of dance to other arts and areas of thought.
Given the program's emphasis on developing an awareness of the global nature of dance, study abroad opportunities are seen as a very useful aspect of a student's undergraduate dance experience. Such study is especially encouraged for dance majors and minors. Study abroad dance programs developed by members of the dance faculty are available in France, Ghana, India, Japan, and United Kingdom. Dance components are also available in programs in Spain and Argentina. Social change engagement is available as an aspect of study abroad experiences in Ghana, India, and Northern Ireland. Additional information regarding study abroad experiences is listed below and can also be found on both the Dance Program and Off-Campus Study websites. In order to further enhance student engagement with the field at large, every year the program hosts diverse national and international dance artists and scholars.

## Course Major

These prerequisites are strongly recommended for first and second year students and must be completed before the junior year. If a student has not completed all of these prerequisites at the time of an application for a major, but has done good work in one or more courses in the program, the student may be accepted on a provisional basis.

1. DANC 003, 004 or 025A
2. DANC 011. Dance Lab I: Making Dance
3. One dance technique class (in any style) for academic credit

## Prerequisite credits for majors: 2.5

The program offers three possible areas of focus for majors; composition, history/theory, or an individual focus. Requirements for each focus are as follows:
Composition
DANC 008. Anatomy: Bones, Muscles, and Movement
DANC 012. Dance Lab II: Making Dance or DANC 013. Dance Composition Tutorial
DANC 022, 023, or 025A - one course
DANC 036,038 , or 075,077 b. or 079 - one course DANC 048 section 2. Embodying Improvisation: a global cross-disciplinary discourse
DANC 049 (any section), 071, 078, one Western and one non-Western course
DANC 050, 051, 053, 060, or 061 - one or two courses
*DANC 094 or 095 - one course

## Total credits in focus:

6.5-7.5

History/Theory
DANC 022, 023, or 025A - two courses
DANC 036,038 , or $075,077 \mathrm{~b}$. or 079 - two courses
DANC technique and repertory courses - one Western and one non-Western course
*DANC 094/095 - one course

## Total credits in focus: 6.5-7

Individually created focus - See Special Major
Total prerequisites and credits required for majors:
9.0-10.0
*The senior project/thesis is required of all majors.
The dance faculty encourages students to pursue a senior project/thesis that incorporates a comparison or integration of dance with some other creative or performing art (creative writing, music, theater, or visual art), with a communitybased learning component, or with another academic discipline of the student's interest.

## Requirements

For majors, regular participation in technique classes throughout a student's time at Swarthmore and participation in repertory courses for at least four semesters. Students may choose any style of repertory experience as long as they adhere to the distribution guidelines to participate in both Western and non-Western styles. They are also encouraged to seek out service-learning/ community-based learning experiences that incorporate dance. These may substitute for repertory experiences (especially those with a composition focus). Majors are also strongly encouraged to enroll in THEA 003. Fundamentals of Design for Theater Performance and THEA 004B. Lighting Design.

## Course Minor

The goal of the course minor in dance is to expose a student to the broad scope of the field. The distribution of required courses for the minor provides students with an introduction to composition, history, technique, and theory and allows them to direct their final credit(s) in the minor toward a specific area of interest. It is also possible for students to align required courses within the minor to reflect that specific interest, if any. Minors will participate in the senior colloquia or individualized meetings with guest artists and instructors and will be encouraged, but not required, to develop an extended paper or a significant dance performance piece as part of their program. Whether they enroll for credit or audit, all dance majors and minors are strongly encouraged to participate in technique and repertory classes each term.
These prerequisites are strongly recommended for first and second year students and must be completed before the junior year. If a student has not completed all of these prerequisites at the time of an application for a minor, but has done good work in one or more courses in the program, the student may be accepted on a provisional basis.

1. DANC 003, 004 or 025A
2. One technique or repertory course for academic credit
Prerequisite credits for minor:
1.5

Course requirements for minor:

1. DANC 011. Dance Lab I: Making Dance
2. DANC 022, 023, or 025A - one course
3. DANC 036,038 , or 075,077 b. or 079 - one course
Additional courses proposed by the student and approved on an individual basis by the faculty from a combination of composition, history, repertory, technique, and theory courses -2 credits
Total credits in minor:
5
Total prerequisites and credits required for minor: 6.5

## Requirements

For minors, regular participation in technique classes throughout a student's time at Swarthmore and participation in repertory courses for at least two semesters is required. Students may choose any style of repertory experience. They are also encouraged to seek out service-
learning/community-based learning experiences that incorporate dance. These may substitute for repertory experiences.

## Honors Major

The minimum requirement for admission to the honors major is at least the following 4 courses ( 3 credits) in dance; an introductory history/theory course (003, 004, or 025A), DANC Lab I: Making

Dance (DANC 011), one dance technique class (DANC 040-048, 050-053, or 060-061) and DANC 008. Majors in the Honors Program must also have an overall B grade average before admission. In addition to the guidelines noted later, each honors major will be responsible for the material designated on the reading and video lists for senior honors study available from the department office.
All dance majors in the Honors Program must do three preparations in the department and one outside (in a related or unrelated minor). Two of the departmental preparations will be based on course combinations (one in history or theory and one in composition beyond the introductory-level course DANC 011). The third will take the form of either a senior project (DANC 094) or a senior thesis (DANC 095, 096). The portfolio submitted by each student will include both written materials and a DVD that provides examples of the student's choreographic and/or performance work at Swarthmore (a maximum of 20 minutes in length). Each student's program will include the following: History and theory. One area of emphasis linking a course from DANC 022,023 or 025 A with a course from DANC 036, 038, or 077B. Each student will demonstrate this integration via a paper written as an attachment. This paper, along with appropriate papers from each history and theory class submitted for preparation, will be sent to the examiner. The written and oral exam for this preparation will consist of a response to three questions set by the examiner.
Composition. Each student may submit a combination of Dance Lab I: Making Dance (DANC 011) plus either Dance Lab II: Making Dance (DANC 012), or Composition Tutorial (DANC 013) two times. The syllabi (where appropriate), a DVD of the final work, and a paper concerning the choreographic process from each class will be submitted to the examiner. Senior project/thesis. These projects/theses will be individually determined. Each student will be assigned a faculty adviser who will assist the student in the creation of an initial bibliography or videography or both as well as an outline for the project or thesis. It will then be the student's responsibility to proceed with the work independently.
Total prerequisites and credits required for honors major: 6-7

## Requirements

Regular participation in technique classes throughout a student's time at Swarthmore and participation in repertory courses for at least two semesters. Students may choose any style of repertory experience. They are also encouraged to seek out service-learning/community-based learning experiences that incorporate dance. These may substitute for repertory experiences.

## Honors Minor

Students in the Honors Program who are presenting a major in another discipline and a minor in dance must do one preparation in dance. This preparation will take the form of either composition or history and theory described earlier in the text concerning honors majors in dance. The choice regarding focus for a student's minor will be determined in consultation with an adviser from the dance faculty.
These prerequisites are strongly recommended for first and second year students and must be completed before the junior year. If a student has not completed all of these prerequisites at the time of an application for an Honors minor, but has done good work in one or more courses in the program, the student may be accepted on a provisional basis.

1. DANC 003, 004, or 025A
2. One technique or repertory course for academic credit
Minors in the Honors Program must also have an overall B grade average before admission. In addition to the guidelines noted below, each honors minor will be responsible for the material designated on a reading and video list for senior honors study available from the department office. Total prerequisites and credits required for honors minor: 3-4

## Requirements

For minors, regular participation in technique classes throughout a student's time at Swarthmore and participation in repertory courses for at least two semesters is required. Students may choose any style of repertory experience. They are also encouraged to seek out service-
learning/community-based learning experiences that incorporate dance. These may substitute for repertory experiences.

## Special Major

The program for a special major in dance comprises 4 credits in dance coursework. The two disciplines in this major may be philosophically linked or may represent separate areas of the student's interest. The faculty encourages students to consider the philosophical links between the two disciplines. Examples of past special majors include: Dance and Anthropology, Dance and Psychology, and Dance and Art. All special majors will design their programs in consultation with a faculty adviser.
Whether they enroll for credit or audit, special majors are required to participate in technique and repertory classes for at least two semesters.

## Additional Information Regarding the Dance Program

## Dance Technique Courses

In a typical semester, more than 30 hours of dance technique classes are offered on graded levels presenting a variety of movement styles.
Technique courses, numbered 040 through 048, 050 to 053 , and 060 or 061 , may be taken for academic credit or may be taken to fulfill physical education requirements. Advanced dancers are encouraged to consult with instructors regarding placement in level III technique classes. A total of not more than 8 full credits ( 160.5 -credit courses) in performance dance technique classes and in music performance classes may be counted toward the degrees of bachelor of arts and bachelor of science. No retroactive credit is given for performance classes.

## Dance Program Performance

## Opportunities

All interested students are encouraged to enroll in repertory classes (DANC 049, 071 or 078 ) and/or to audition for student and faculty works. These auditions occur several times each semester; dates are announced in classes and in postings outside the dance studios. Formal concerts take place toward the end of each semester; informal studio concerts are scheduled throughout the year.
The Dance Program regularly sponsors guest artist teaching and performance residencies. In addition, the program regularly hosts guest choreographers who work with student ensembles in technique and repertory classes.

## Off-Campus Study

## Ghana Program

The Dance Program has an ongoing relationship with the International Centre for African Music and Dance and the School of Performing Arts at the University of Ghana in Legon, a suburb of the capital city, Accra. Students choosing to study in Ghana can anticipate opportunities that include a composite of classroom learning, tutorials, some organized travel, and independent study and travel. Beyond credits in dance, music, theater, African studies, and intensive Twi (an Akan language widely spoken in Ghana), a menu of courses at the University of Ghana is also available. Students participating are able to enroll for the equivalent of a full semester's credit ( 4 to 5 credits). Community-based learning internships, in dance and other subjects, are also an option. Interested students should contact the director of dance as early as possible for advising purposes and for updated information.

## Additional Opportunities

Additional dance study abroad initiatives of a more independent nature are under way in France, India, Japan and Northern Ireland. The program in

Northern Ireland can incorporate a strong focus on the arts and social change. Tamagawa University in Machida, near Tokyo, offers course study in classical Japanese and folk dance, taiko drumming, contemporary dance and ballet, and Japanese language. Students are encouraged to discuss these programs with the director of dance.

## Introductory Courses

DANC 003. First-Year Seminar: "Shall We
Dance?" Dance in the Movies
This first-year seminar will investigate how dance has served as a catalyst and a vehicle for investigating class, gender, race, romance, and technology in films from the early 20th century through the present. Documentaries, narrative, animated, feature-length and short films, produced in the United States and abroad by small independent and major motion picture industry companies, will be included. One video viewing/screening session per week in addition to class meetings. Response and research papers, digital stories, and poster presentations will all be included.
This is a reading and writing intensive course open to all students and fulfills a prerequisite requirement for dance major and minors. Writing course.
1 credit.
Fall 2014. Friedler.

## DANC 004. The Arts as Social Change

(Cross-listed as MUSI 006)
This course aims to bring together students with an interest in investigating and investing in social change work through the arts. Our seminar community will engage in discussion of readings and video viewings, will host and visit local leaders from the arts and social change movement, and will engage in community internships as required parts of the course. Papers, journals, grant writing exercises, digital storytelling, and handson projects will all be included.
This course is open to all students.
This course fulfills a prerequisite requirement for dance majors and minors.
Eligible for PEAC credit.
1 credit.
Spring 2015. Friedler.
DANC 008. Anatomy: Bones, Muscles, and Movement
(Cross-listed as MUSI 008B)
Human musculoskeletal anatomy class that applies anatomy to dance technique and general movement. Covers muscles and bones, kinesiology, strengthening/stretching techniques, and injury identification/management. Theoretical knowledge supported with actual movement
analysis in dance studio. Reading, quizzes, midterm, final.
This course fulfills a prerequisite requirement for dance majors.
0.5 credit.

Spring 2015. Malcolm-Naib.

## Composition, History, and Theory Courses

DANC 011. Dance Lab I: Making Dance
A study of various basic principles of dance
composition and choreography. We will explore/invent movement through
experimentations with time, space, and energy qualities, often using improvisation and generative movement "games". Explorations will be geared toward honing the student's individual voice through movement, and challenging preconceived ideas of what that voice sounds/looks/feels like. All previous dance/movement experience is welcome; this class is not exclusive to any one genre of movement. Reading, video and live concert viewing, short dance studies, journals, and a final piece for public performance in the Troy dance lab are required.
Prerequisite: Any dance course or permission of the instructor. A course in dance technique must be taken concurrently.
1 credit.
Spring 2015. Friedler
DANC 011A. Dance Production Practicum
By individual arrangement with the dance faculty for rehearsal and performance of work in conjuction with dance program courses; 012, 013, 092, or 094.
P.E. credit.

Each semester.
DANC 012. Dance Lab: Making Dance II
An elaboration and extension of the material studied in DANC 011. Stylistically varying approaches to making work are explored in compositions for soloists and groups. Coursework emphasizes using various approaches and methods (e.g., theme and variation, motif and development, structured improvisation, and others). Reading, video and live concert viewing, movement studies, journals, and a final piece for public performance that may include a production lab component are required.
Prerequisites: DANC 011 or its equivalent. A course in dance technique must be taken concurrently.
Students with whom the choreographer works and who commit to 3 hours weekly, may receive PE credit under DANC 011A. Dance Production Practicum.
1 credit.
Not offered 2014-2015.

DANC 013. Dance Composition: Tutorial
The student enrolling for a tutorial will enter the semester having identified a choreographic project and will be prepared to present material weekly. Projects in any dance style are encouraged. All students proposing tutorials are advised to discuss their ideas with a member of the dance faculty before enrollment. Choreography of a final piece for public performance is required, as are weekly meetings with the instructor and directed readings and video and concert viewings. A journal or research paper may also be required.
Prerequisites: DANC 011 or its equivalent. A course in dance technique must be taken concurrently.
Students with whom the choreographer works and who commit to 3 hours weekly, may receive PE credit under DANC 011A. Dance Production Practicum.
0.5 credit.

Fall 2014 Chakravorty. Spring 2015. Friedler.
DANC 022. History of Dance:Europe's Renaissance Through 1900
A study of social and theatrical dance forms in the context of various European societies from the Renaissance through thev 19th century, including an overview of the development of ballet.
Influential choreographers, dancers, and theorists representative of the periods and of different cultures will be discussed. Reading, writing, inclass presentations, and video viewing in conjunction with learning several period dances will lead to a final research paper.
Prerequisite: DANC 003, 004 or 025A or permission of the instructor.
1 credit
Not offered 2014-2015.
DANC 023. History of Dance: 20th and 21st Centuries
This course is designed to present an overview of 20th- and 21st-century social and theatrical dance forms in the context of Western societies with an emphasis on North America. Focusing on major stylistic traditions, influential choreographers, dancers, and theorists will be discussed. Through readings, video and concert viewings, research projects, and class discussions, students will develop an understanding of these forms in relation to their own dance practice. Two lectures and 1-hour video viewing per week.
Prerequisite: DANC 003, 004, or 025A strongly recommended.
1 credit.
Not offered 2014-2015.
DANC 025A. Dance and Diaspora
(Cross-listed as SOAN 020J)
Dance is as unconventional but powerful device for studying migration and social mobility. This
course will explore the interrelated themes of performance, gender, personhood, and migration in the context of diasporic experiences. By
focusing on specific dance forms from Asia,
Africa and Latin America, we will examine the competing claims of placeness, globalization, and hybridization on cultural identity and difference. This is a reading and writing intensive course.
Eligible for ASIA or GSST credit.
Writing course.
1 credit.
Fall 2014. Chakravorty.

## DANC 036. Dancing Identities

This course explores ways that age, class, gender, and race have informed dance, particularly performance and social dance, since 1960. The impact of various cultural and social contexts will be considered. Lectures, readings, and video and concert viewings will be included. Students will be expected to design and participate in dance and movement studies as well as submit written research papers.
Prerequisite: DANC 003, 004, 025A or permission of the instructor.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015.

## DANC 038. Performing Ecstasy Dancing

 the Sacred(Cross-listed as RELG 042)
By locating the sacred in the experiences of ecstatic dance and music, the course will specifically examine the evolution of Bhakti (Hindu) and Sufi religious practices from ritual to performance art. By exploring the sacred in relation to social processes of culture and their transformations, it will connect the sacred not only to history, tradition, ritual, spirituality and subjectivity but also to national identity, commodity and tourism in contemporary culture. It is a reading and writing intensive course. 1 credit.
Spring 2015. Chakravorty.

## Dance Technique and Repertory <br> Courses

Note: Technique courses (040-048, 050-053, 060, and 061) and Repertory courses ( 049 [all sections], 071 and 078 ) may be taken for 0.5 academic credit or may be taken for physical education credit. All dance technique courses numbered 040 to 048 are open to all students without prerequisite. Courses numbered 050 to 058 and 060 to 061 have a prerequisite of either successful completion of the introductory course in that style or permission of the instructor

DANC 040. Dance Technique: Modern I
This course introduces students to the Horton Technique which was designed with studies to stretch and strengthen different areas of the body. The basic warm up is taught: flat backs, primitive squat, descent and ascent, lateral stretches, release swings and deep lunges. Many of the beginning level studies focus on the Achilles tendon, abdominal muscles and hamstring muscles. Simple combinations are taught to introduce musicality and dynamics to the beginning dancer's vocabulary
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. King.
DANC 041. Dance Technique: Ballet I
An introduction to the fundamentals of classical ballet vocabulary: correct body placement; positions of the feet, head, and arms; and basic locomotion in the form. If taken for academic credit, concert attendance and two short papers are required.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Sherman.
DANC 043. Dance Technique: African I
African Dance I introduces students to
Umfundalai. In a contemporary context, the
Umfundalai dance tradition surveys dance styles of African people who reside on the continent of Africa and in the Diaspora. Upon completion of the course, students will gain a beginning understanding of how to approach African dance and the aesthetic principles implicit in Africanoriented movement. Students enrolled in DANC 043 for academic credit are required to keep a weekly journal and write two short papers.
Eligible for BLST credit.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Staff
DANC 044. Dance Technique: Tap
This course is available to all tappers, from beginning to advanced. Such forms as soft-shoe, waltz-clog, stage tap, and "hoofin" will be explored. If taken for academic credit, concert attendance and two short papers are required. 0.5 credit or P.E. credit. Spring 2015. Davis.

## DANC 045. Dance Technique: Yoga

Vinyasa Flow/Power Yoga course with a focus on asanas (physical postures) and pranayama (breath control) and relaxation techniques. While this is a vigorous class, the practice is intended to be joyful and energizing with a goal of producing calm in mind and body, a practical knowledge of body alignment, injury prevention, and muscle and skeletal usage. The course will consist of a mix of styles incorporating elements of Ashtanga, Vinyasa Power Yoga, and Byron (AU) Yoga

Centre Purna. If taken for academic credit, three short papers are required.
0.5 credit or P.E. credit.

Fall 2014. Arrow

## DANC 046. Dance Technique: Kathak

The class introduces the hot rhythms (/talas/) and the cool emotions (/rasa/s) of the Indian classical dance art: Kathak. The dancing involves high energy, rapid turns, and fast footwork as well as movement of eyes, hands, neck, and fingers. This syncretic dance style from north India draws on Hindu and Muslim cultural traditions (Bhakti and Sufi) and forms the raw material for the globalpop Bollywood dance. Students who are enrolled for academic credit will be required to write papers and/or create performance texts or choreographies.
Eligible for ISLM credit.
0.5 credit or P.E. credit.

Fall 2014. Chakravorty.

## DANC 047. Dance Technique: Flamenco

This is an introductory flamenco course designed to develop basic movement vocabulary and technique associated with flamenco as a dance form. Flamenco dance involves body attitude and carriage, braceo (arm movements), floreo (movements of fingers and hands), taconeo (footwork), vueltas (turns), and palmas (rhythmic hand clapping technique). A variety of exercises and technique studies in each of these elements will be presented. All forms of flamenco are structured around rhythmic patterns which will be introduced and explored through dance movement and live guitar music. Students will learn choreographic sequences that develop and embody their knowledge of flamenco rhythms and style.
Class meets one time weekly and includes 4 Saturday meetings. Students taking DANC 047 for academic credit are required to keep a weekly journal and write two short papers.
0.5 credit or P.E. credit.

Fall 2014. Gmitter.
DANC 048. Dance Technique: Special Topics in Technique
Intensive study of special topics falling outside the regular dance technique offerings. Topics may include Alexander technique, contact improvisation, jazz, Pilates, and musical theater dance. If taken for academic credit, concert attendance and one or two short papers are required.
Section 2: Embodying Improvisation: a global cross-disciplinary discourse
This studio course will examine improvisation as a tool to create and expand performance potentials. We will explore the practice of improvisation from multiple global perspectives. The course is performance-centered, though we will interrogate
practices that occur in a variety of settings, from the proscenium stage to the after-hours niteclub, from the "in front of your mirror when no one is looking" persona to the pop star stadium highlystaged persona, from the quotidian to the ecstatic. As a result, we will begin to ponder the presence of performance in all spaces. We will be informed by a number of dance and movement techniques (for example, contemporary improvisation through shifts of energetic mode, social partner dancessalsa, bachata, swing, contact improvisation, viral sensations-such as twerking), though students do not need to have a background in dance to participate in the class. We have all been accumulating movement information throughout our lives, and your personal accumulation of this information will be our raw material for investigation in class. This course is ideal for any students with interest in exploring performance (dance, theater, music, performance art), transformation, and the immediate moment. 0.5 credit or P.E. credit.

Fall 2014. Poe.
DANC 049. Performance Dance: Repertory
The various sections of this course offer opportunities for study of repertory and performance practice. Students are required to perform in at least one scheduled dance concert during the semester. Three hours per week. A course in dance technique should be taken concurrently.

## Fall Sections

Section 1: Tap
Open to students with some tap experience, this class draws on the tradition of rhythm tap known as "hoofin'." A new dance is made each semester, working with the varying levels of skill present in the student ensemble. Students will be expected to attend additional ensemble rehearsals.
0.5 credit or P.E. credit.

Fall 2014. Davis.
Section 4: Taiko
The class will offer experience in traditional or traditionally based Japanese drumming repertory. The relationship between the drumming and its concomitant movement will be emphasized. Open to the general student with performances in December.
Two (2) semesters of this course fulfills the World Traditions Component requirement for the music major.
0.5 credit or P.E. credit.

Fall 2014. Arrow.
Section 5: Ballet
This class will offer students experience with
learning and performing classical ballet, while also being part of the creative process of new
choreography. Choreography will be performed in December. Open to advanced students from Ballet

III, or with permission of instructor. Auditions will be held at the first class.
0.5 credit or P.E. credit.

Fall 2014. Chipman-Bloom

## Spring Sections

Section 1: Modern
This repertory class will explore the physicality and psychology of performing movement. Movement sources will range form modern dance to hip-hop to contact improvisation. Students need not specialize in any one type of dance to take this course, though it is recommended for
intermediate/advanced dancers. Students will be expected to attend additional ensemble rehearsals.
A technique class should be taken concurrently, and Modern III is highly recommended.
0.5 credit or P.E. credit.

Spring 2015. Poe
Section 3: African
Auditions for admission to this course will be held at the first class meeting. Additional information regarding the course is available from the instructor. Resulting choreography will be performed in the spring student concert. Students will be expected to attend additional ensemble rehearsals.
Prerequisite: DANC 043, 078, or permission of the instructor.
Eligible for BLST credit.
0.5 credit or P.E. credit.

Spring 2015. Staff
Section 6: Kathak
This is a moderate level technique course on Kathak. We will work on teen tala or metrical scale of sixteen beats to learn complex rhythmical structures called bols. The various patterns of bols such as tukra, tehai and paran will also be explored. The two aspects of Kathak technique nrtta (abstract movement) and nritya (expressive gestures) will be used for a final composition.
The final composition will be presented in a scheduled student dance concert.
Prerequisite for this course is 048 or prior knowledge of any classical Indian dance forms. 0.5 credit or P.E. credit.

## Spring 2015. Chakravorty.

## Section 7: Flamenco

This repertory class consists of choreography set to traditional flamenco rhythms with an emphasis on the embodiment of flamenco style and attitude in posture, body and arm positions, movement and footwork. Ongoing technique practice strengthens the dancer's movement vocabulary and stamina. Communication between dancer and live guitarist is cultivated. Resulting choreography will be performed in the spring student concert. Class meets 1 x weekly and includes 5 Saturday meetings. Attendance at additional rehearsals is
expected. Students taking DANC 049 for academic credit are required to keep a weekly journal and write one or two short papers.
Prerequisites: 047 or its equivalent, or with
permission of instructor.
0.5 credit or P.E. credit.

Spring 2015. Gmitter.
Section 8: Movement Theater Workshop
(See THEA 008)
Prerequisites: THEA 001 or 002, any dance course 040 to 044 , or consent of the instructor. 1 credit.

DANC 050. Dance Technique: Modern II
An elaboration and extension of the principles addressed in DANC 040. If taken for academic credit, concert attendance and two short papers are required.
Prerequisite: DANC 040 or its equivalent.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Poe
DANC 051. Dance Technique: Ballet II An elaboration and extension of the principles addressed in DANC 041. If taken for academic credit, concert attendance and two short papers are required.
Prerequisite: DANC 041 or its equivalent.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Sherman.

## DANC 052. Pointe

This course is an intermediate level pointe class, with a focus on developing pointe technique and the strength required to utilize and maintain that technique while dancing en pointe. We will also explore how musicality informs a dancer's pointe work, both through class exercises and by learning a variation. There is also a possibility that some students will perform in the Spring Student Dance Concert.
Previous Pointe work required.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Chipman-Bloom
DANC 053. Dance Technique: African II
African dance for experienced learners aims to strengthen students’ African dance technique. The course will use the Umfundalai technique allied with neo-traditional West African Dance vocabularies to enhance students' visceral and intellectual understanding of African dance. Students who take African Dance II for academic credit should be prepared to explore and access their own choreographic voice through movement studies.
Prerequisite: DANC 043.
Eligible for BLST credit.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Staff
DANC 060. Dance Technique: Modern III
Continued practice in technical movement skills in
the modern idiom, including approaches to various
styles. If taken for academic credit, concert
attendance and two short papers are required.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Poe
DANC 061. Dance Technique: Ballet III
Advanced level ballet course requiring a strong technical background in ballet technique.
Challenges students to grasp advanced movement sequences with a high level of technical proficiency and performance. If taken for academic credit, concert attendance and two short papers are required.
0.5 credit or P.E. credit.

Fall 2014 and spring 2015. Malcolm-Naib.
DANC 071. Salsa Dance/Drumming
(Cross-listed as MUSI 071)
This course provides an opportunity to learn both the dance and basis for drumming of Cuban salsa, Dominican merengue and Brazilian samba with an emphasis on salsa. Students will gain an understanding and practice of pulse, meter and the polyrhythmic structure underlying Afro/Caribbean music generally; hand techniques for conga; and improvisation and composition for both the dance and drumming. We will use a form of "street" notation in order to write/read/remember the various rhythms.
No prerequisite required and no experience in dance or music necessary.
0.5 credit or P.E. credit.

Not offered 2014-2015.

## DANC 073. Arts Administration for

Performance
This course is available to students participating in various dance study abroad programs.
By arrangement with the Director of Dance. 1 credit.
Each semester.
Dance 073B. Community Arts Internship This course provides students with the opportunity to conduct a supervised internship at various arts organizations in Chester and Philadelphia following an introduction to such work through enrollment in Dance 004./Music 006. The Arts as Social Change. Individual placements will be arranged with the assistance of a faculty supervisor. Students will devote a minimum of six hours per week to their internships. Reflective papers and reports will be required.
Prerequisite or co-requisite: DANC 004/MUSI 006 or with permission of instructor.
0.5 credit

Offered every semester.

## DANC 074. Scenography for Dance

## Theater Performance

Available to students participating in the study abroad programs coordinated by Swarthmore in Ghana, India, or Japan.
Prerequisites: THEA 004B and THEA 014. 1 credit.
Each semester.
DANC 075. Special Topics in Dance Theater
Available to students participating in the study abroad programs coordinated through Swarthmore. By arrangement.
Prerequisites: 003, 004, 011, and consent of the Director of Dance.
1 credit.
Each semester.
DANC 077B. Anthropology of Performance (Cross-listed as SOAN 077B)
This course will introduce various approaches to the study of visual anthropology as it relates to movement, body, culture, and power. It will examine theoretical approaches ranging from semiotics of the body, communication theory, and phenomenology to the more recent approaches drawing on performance, postcolonial, poststructural, and feminist theories. It will also examine how anthropological issues in dance or performance are closely tied to issues of modernity, regional and national identity, gender, and politics. Various ethnographies and literature from dance studies, media and film studies, and feminist studies will be included in the course material. It will also require students to view videos to engage in visual analysis.
Writing course.
1 credit.
Not offered 2014-2015.
DANC 078. Dance/Drum Ensemble (Cross-listed as MUSI 078)
A repertory class in which students will learn, rehearse and perform traditional Ghanaian dances and drumming, and a contemporary movement/rhythm piece consisting of both 'found' percussion 'discovered’ movement. Participants will be encouraged to both play the rhythms and learn the dance/movement. Students will be expected to attend additional ensemble rehearsals. Performance: LPAC main stage, first week of December as part of the fall student dance concert.
Jeannine Osayande (dance) and Wesley Rast and Alex Shaw (drumming) are guest artists.
Eligible for BLST credit.
0.5 academic credit or P.E. credit.

Fall 2014. Osayande and guest artists.
DANC 079. Dancing Desire in Bollywood Films
(Cross-listed as SOAN 079B)
This course will explore the shifts in sexuality and gender constructions of Indian women from national to transnational symbols through the dance sequences in Bollywood. We will examine the place of erotic in reconstructing gender and sexuality from past notions of romantic love to desires for commodity. The primary focus will be centered on approaches to the body from anthropology and sociology to performance, dance, and film and media studies.
Eligible for ASIA, FMST, or GSST credit. 1 credit.
Not offered 2014-2015.

## DANC 092. Independent Study

Available on an individual or group basis, this course offers students an opportunity to do special work with performance or compositional emphasis in areas not covered by the regular curriculum. Students will meet with supervising faculty on a weekly basis and present performances and/or written reports to the faculty supervisor, as appropriate. Permission must be obtained from the program director and from the supervising faculty. Students with whom the student choreographer works and who commit to 3 hours rehearsal time weekly, may receive PE credit under DANC 011A. Dance Production Practicum. The project culminates in a public performance.
1 credit.
Each semester. Staff.

## DANC 093. Directed Reading

Available on an individual or group basis, this course offers students an opportunity to do special work with theoretical or historical emphasis in areas not covered by the regular curriculum. Students will meet with a faculty supervisor weekly and present written reports to the faculty supervisor. Permission must be obtained from the program director and from the supervising faculty. 1 credit.
Each semester. Staff.

## DANC 094. Senior Project

Intended for seniors pursuing the special major or the major in course or honors, this project is designed by the student in consultation with a dance faculty adviser. The major part of the semester is spent conducting independent rehearsals in conjunction with weekly meetings under an adviser's supervision. The project culminates in a public presentation and the student's written documentation of the process and the result. An oral response to the performance and to the documentation follows in which the student,

## Music and Dance

the adviser, and several other members of the
faculty participate. In the case of honors majors, this also involves external examiners. Proposals
for such projects must be submitted to the dance faculty for approval during the semester preceding enrollment.
Prerequisite: Previous or concurrent enrollment in an advanced-level technique course or demonstration of advanced-level technique.
Students with whom the choreographer works and who commit to 3 hours weekly, may receive PE credit under DANC 011A. Dance Production
Practicum.
1 credit.
Each semester. Staff.
DANC 095, 096. Senior Thesis
Intended for senior majors or minors, the thesis is designed by the student in consultation with a dance faculty adviser. The major part of the
semester is spent conducting independent research in conjunction with weekly tutorial meetings under an adviser's supervision. The final paper is read by a committee of faculty members or, in the case of honors majors, by external examiners who then meet with the student for evaluation of its contents. Proposals for a thesis must be submitted to the dance faculty for approval during the semester preceding enrollment.
1 or 2 credits.
Each semester. Staff.

| Coordinator: | LEE A. SMITHEY (Peace and Conflict Studies, Sociology and Anthropology) <br> Anna Everetts (Administrative Assistant) |
| :--- | :--- |
| Committee: | Wendy E. Chmielewski (Peace Collection) <br>  <br>  <br> Ellen Ross (Religion) <br> Krista Thomason (Philosophy) <br>  <br>  <br>  <br> Dominic Tierney (Political Science) <br> Andrew Ward (Psychology) |

The Peace and Conflict Studies Program at Swarthmore College provides students with the opportunity to examine conflict in various forms and at levels stretching from the interpersonal to the global. The multidisciplinary curriculum explores the causes, practice, and consequences of collective violence as well as peaceful or nonviolent methods of conducting or dealing with conflict.
Students who minor in peace and conflict studies at Swarthmore will:

1. understand factors shaping human conflict, including psychological, social, cultural, political, economic, biological, religious, and historical ones;
2. analyze specific cases of conflict, including interpersonal, inter-group, inter-state, and international disputes;
3. examine theories and models of peace-building and reconciliation and evaluate attempts to manage, resolve, or transform conflict nonviolently;
4. investigate forms of oppression and injustice, and their relationship to conflict, locally and globally; and
5. explore opportunities to study topics relevant to peace and conflict through fieldwork, internships, or other experiences outside the classroom.

## The Academic Program

Students with any major, whether in Course or in the Honors Program, may add a course minor in peace and conflict studies. Students in the Honors Program may choose to complete an honors minor in peace and conflict studies.

## Course Minor

A minor in peace and conflict studies consists of six credits, of which no more than two may be taken in the student's major department. Introduction to Peace and Conflict Studies (PEAC 015 ) is required and should be taken before the junior year, if possible. It is preferable (but not always possible) for students to have taken two courses in the minor, including Introduction to Peace and Conflict Studies, when applying to join the program.

## Honors Minor

Students in the Honors Program who choose an honors minor in peace and conflict studies must complete one preparation for external examination. A standard two-credit preparation can consist of a seminar, a combination of two courses in different departments, a two-credit thesis, or a combination of a thesis and a course. According to the Honors handbook: "When the preparation for the interdisciplinary minor is an interdisciplinary thesis, the rule is that at least half of the work of the thesis should be in a subject outside the student's major". Each student should propose a standard preparation unless he or she has obtained the approval of a sponsoring faculty member to undertake an honors attachment or thesis. The proposed preparation must be approved by the Peace and Conflict Studies Committee.
Students whose honors minor in peace and conflict studies can be incorporated into the final requirements for Senior Honors Study in the major should do so. The Peace and Conflict Studies Committee will work out the guidelines for the integration exercise with the student and the major department.

## Applying for the Minor

Students who intend to minor in peace and conflict studies should submit a copy of their Sophomore Plan to the coordinator of the program during the spring of the sophomore year, after consultation with program faculty members. The paper should present a plan of study that satisfies the requirements stated below, specify the courses to count toward the minor, share the student's interest in peace and conflict studies, and identify how the program complements the student's academic goals.
The application form for the minor may be found at: http://bit.ly/pcsprog. This form should be submitted to the Programs Office, preferably with the Sophomore Plan.
Honors students' sophomore papers should describe and justify their proposed honors preparation in terms of its suitability for examination and its contribution to the student's interests in peace and conflict studies. Students should obtain advance approval from faculty members who teach the courses that are to be included in an honors preparation. If the
preparation involves a thesis, the student should specify a thesis topic and a thesis adviser. All applications must be approved by the Peace and Conflict Studies Committee.

## Special Major

Applications for special majors are considered on a case-by-case basis. Students who wish to propose a special major should consult with the program coordinator and should identify a sponsoring faculty member in the early stages of developing the major.
Students must complete the special major form available from the Registrar's Office, and submit it to the Programs Office along with an updated Sophomore Plan that explains in detail the rationale for a special major. For further guidance on proposing a special major, please visit the program's special major information located at: http://bit.ly/pcsspecmaj.
If you are proposing an honors special major, please also complete the Honors Program in Peace and Conflict Studies form. This form requires that you describe your proposed preparation and explain why you believe it is appropriate, and how it is central to your study of peace and conflict. If your preparation involves two one-credit components, please explain how the components work together to constitute a cohesive preparation.

## Off-Campus Study

Off-campus study is encouraged for both special majors and minors of peace and conflict studies. In particular, the Northern Ireland Semester, based in Derry/Londonderry and Belfast, focuses on ongoing efforts to understand the legacy of the Troubles and build peace. A unique feature of the semester involves placements in local community groups, which contribute to the development of a shared and sustainable democratic future in Northern Ireland.

Swarthmore students attend this program under the College’s Semester/Year Abroad Program. One credit is awarded for community placement, one credit for a required course on peace and conflict in Northern Ireland, and two credits for peace and conflict studies courses taken in Belfast at the Irish School of Ecumenics (Trinity College). Normally, no more than three courses taken outside of Swarthmore College may be counted toward the major or minor, subject to the approval of the peace and conflict studies coordinator. In the case of the Northern Ireland semester, all four courses may be applied, subject to the approval of the peace and conflict studies coordinator. Further information is available at http://northernireland.swarthmore.edu.
Possibilities exist for summer research and/or service work in Northern Ireland arising from participation in the program.

## Research and Service-Learning

## Internships

Student programs can include an internship or fieldwork component, and an internship is highly recommended. Fieldwork and internships normally do not receive credit. However, students can earn up to one credit for special projects that are developed with an instructor and approved in advance by the Peace and Conflict Studies Committee.

## Summer Opportunities

Peace and conflict studies minors and honors minors are encouraged to apply for funding from the Julia and Frank Lyman Student Summer Research Fellowship, the Joanna Rudge Long '56 Award in Conflict Resolution, the Simon Preisler Student Research and Internship award and/or the Howard G. Kurtz, Jr. and Harriet B. Kurtz
Memorial Fund. Applications are due in February, and information can be obtained from the program's website.
Additional information on funding, internships, training, and career opportunities are also available on the Peace and Conflict Studies Program website at www.swarthmore.edu/peacestudies.

## Life After Swarthmore

Peace and conflict studies alumni often develop or work in organizations that promote peace and justice locally and globally. Many pursue graduate work in fields directly or closely related to peace and conflict studies. You may find a growing digest of student and alumni activities on the program's website at
http://blogs.swarthmore.edu/pcsstudents/.

## Courses

The following courses may be applied toward a minor in peace and conflict studies. Each of the courses designated as PEAC is open to all students unless otherwise specified. In the event of an oversubscribed course, preference in enrollment will be given to declared peace and conflict studies minors. Courses that are eligible to count toward a concentration or minor in Peace, Justice, and Human Rights at Haverford College or Peace, Conflict, and Social Justice at Bryn Mawr College may also be applied toward a course minor in peace and conflict studies at Swarthmore. Student programs may, subject to prior approval by the committee, also include independent study; special attachments to courses that are not listed here; courses offered at the University of Pennsylvania; and courses taken abroad.
Courses noted with an asterisk * are eligible for a peace and conflict studies minor by obtaining written approval of the instructor and the program coordinator before the drop/add period ends.
Course materials may be requested for confirmation after course completion. Course
approval forms may be downloaded from the Peace and Conflict Studies Program website.

## PEAC 015. Introduction to Peace and

 Conflict StudiesIn Introduction to Peace and Conflict Studies, we learn that peace and conflict are not mutually exclusive. To paraphrase Conrad Brunk, the goal of peace and conflict studies is to better understand conflict in order to find nonviolent ways of turning unjust relationships into more just ones. We examine both the prevalence of coercive and non-peaceful means of conducting conflict as well as the development of nonviolent alternatives, locally and globally, through institutions and at the grassroots. The latter include: nonviolent collective action, mediation, peacekeeping, and conflict transformation work. Several theoretical and philosophical lenses will be used to explore cultural and psychological dispositions, conflict in human relations, and conceptualizations of peace. The course will take an interdisciplinary approach with significant contributions from the social sciences.
1 credit.
Fall 2014. Smithey.

## PEAC 070. Research Internship/Fieldwork

Credit hours to be arranged with the coordinator.

## PEAC 071B. Research Seminar: Strategy

 and Nonviolent StruggleThis research seminar involves working with The Global Nonviolent Action Database built at Swarthmore College. This website is accessed by activists and scholars worldwide. The database contains crucial information on campaigns for human rights, democracy, environmental sustainability, economic justice, national/ethnic identity, and peace. Students will investigate a series of research cases and write them up in two ways: within a template of fields (the database proper) and also as a narrative describing the unfolding struggle. Strategic implications will be drawn from theory and from what the group is learning from the documented cases of wins and losses experienced by people's struggles. 1 credit.
Not offered 2014-2015.

## PEAC 077. Gun Violence Prevention:

Peace Studies and Action
The course aims to bridge gaps between peace research, theory, and implementation by encouraging students to move between each as we examine the problem of gun violence, study effective interventions, consider nonviolent ways of conducting conflict, and assess the challenges of developing and sustaining effective peace work. While developing a nuanced understanding of the problem of gun violence, we also aim to get close to the experience of peacemakers and victims by consulting with and visiting local organizations
and engaging with invited guests. We will collaborate with a local gun violence prevention organization to contribute to the work of the organization and develop our own analytical and research skills. Discussion over course readings will also be emphasized. This course will encourage collaboration and active participation in delivering the content of the course.
Writing course.
1 credit.
Spring 2015. Smithey.

## PEAC 090. Thesis

Credit hours to be arranged with the coordinator. Each semester. Staff.
PEAC 093. Directed Reading
1 credit.
Each semester. Staff.
PEAC 180. Senior Honors Thesis
2 credits.
Each semester. Staff.

## Anthropology

ANTH 003G. Development and Its Discontent

## Arabic

ARAB 025. War in Arab Literature and Cinema
ARAB 030. Literature of Resistance

## Dance

DANC 004. The Arts as Social Change

## Economics

ECON 012. Game Theory and Strategic Behaviors
ECON 051. The International Economy*
ECON 065. Health, Conflict, and Public Policy
ECON 081. Economic Development*
ECON 082. Political Economy of Africa
ECON 151. International Economics: Seminar*

## History

HIST 001B. Human Rights as History
HIST 001N. Oil and Empire
HIST 006B. Modern Middle East*
HIST 017. Social Movements in the Arab World
HIST 027. Living with Total War: Europe, 19121923
HIST 028. Nations and Nationalism in Eastern Europe: 1848-1998
HIST 034. Antisemetism Through the Ages
HIST 037. History and Memory: Perspectives on the Holocaust
HIST 049. Race and Foreign Affairs
HIST 055. Social Movements in the 20th Century*
HIST 134. U.S. Political and Diplomatic History
Literatures
LITR 025A. War in Arab Literature and Cinema

## Peace and Conflict Studies

LITR 030A. Literature of Resistance
LITR 083J. War and Postwar in Japanese Culture
Philosophy
PHIL 011. Moral Philosophy*
PHIL 021. Social and Political Philosophy*
PHIL 051. Human Rights and Atrocity

## Political Science

POLS 004. International Politics
POLS 013. Political Psychology and Moral
Engagement*
POLS 019. Democratic Theory and Practice
POLS 047. Democracy, Autocracy and Regime Change
POLS 061. American Foreign Policy
POLS 067. Great Power Rivalry in the 21st Century
POLS 069. Globalization: Politics, Economics, Culture, and the Environment
POLS 075. The Causes of War
POLS 079. Comparative Politics: Revolutions
POLS 112. Democratic Theory and Civic
Engagement in America
POLS 113. International Politics: War, Peace, and Security

Psychology
PSYC 035. Social Psychology*

## Religion

RELG 001C. Religion and Terror in an Age of Hope and Fear
RELG 005. World Religions*
RELG 023. Living in the Light: Quakers
Past/Present*
RELG 039. Good and Evil
RELG 100. Holy War, Martyrdom, and Suicide in Christianity, Judaism, and Islam

## Sociology

SOCI 010J. War, Sport, and the Construction of Masculine Identity
SOCI 010T. 1968 and Origins of the New Left: Social Theory, War and Student Revolt SOCI 025B. Transforming Intractable Conflict
SOCI 035C. Social Movements and Nonviolent Power

## Spanish

SPAN 084. Mexico 1968: la violencia
SPAN 088. Shattered Past: Trauma and Effect in
Postwar Central American Literature

Please consult www.swarthmore.edu/peacestudies for updates, descriptions, and scheduling

PETER BAUMANN, Professor
RICHARD ELDRIDGE, Professor
TAMSIN LORRAINE, Professor and Chair
CHARLES RAFF, Professor
ALAN R. BAKER, Associate Professor ${ }^{3}$
GRACE M. LEDBETTER, Associate Professor
KRISTA THOMASON, Assistant Professor
DONNA MUCHA, Administrative Assistant
${ }^{3}$ Absent on leave, 2014-2015.

Philosophy analyzes and comments critically on concepts that are presupposed and used in other disciplines and in daily life: the natures of knowledge, meaning, reasoning, morality, the character of the world, God, freedom, human nature, justice and history. Philosophy is thus significant for everyone who wishes to live and act in a reflective and critical manner.

## The Academic Program

The Philosophy Department offers several kinds of courses, all designed to engage students in philosophical practices.
A. There are courses and seminars to introduce students to the major systematic works of the history of Western philosophy: works by Plato and Aristotle (Ancient Philosophy); Descartes, Hume and Kant (Modern Philosophy); Hegel and Marx (19th-Century Philosophy); Kierkegaard, Nietzsche, Sartre, Heidegger, de Beauvoir (Existentialism); Russell and Wittgenstein (Contemporary Philosophy).
B. There are courses and seminars that consider arguments and conclusions in specific areas of Philosophy: Theory of Knowledge, Logic, Moral Philosophy, Metaphysics, Aesthetics, and Social and Political Philosophy.
C. There are courses and seminars concerned with the conceptual foundations of various other disciplines: Philosophy of Science, Philosophy of Language, Philosophy of Law, Philosophy of the Social Sciences, Philosophy of Psychology, and Philosophy of Religion.
D. There are courses and seminars on meaning, freedom, and value in various domains of contemporary life: Values and Ethics in Science and Technology, Feminist Theory, and PostModernism.
Members of the Philosophy Department emphasize the engagement of philosophy with other disciplines and recognize that philosophical inquiry is naturally related to concerns in other areas of study. They attempt to make these relations explicit, and so course and seminars are designed to be accessible to a broad range of students, not just those who intend to major in philosophy. Various courses and seminars in
philosophy appear in concentrations in gender and sexuality studies, German studies, medieval studies, interpretation theory, and environmental studies.

## Prerequisites

Satisfactory completion of either any section of PHIL 001 Introduction to Philosophy, or PHIL 012 Logic, or any First-Year Seminar (numbered $002-010$ ) is a prerequisite for taking any further course in philosophy. Sections of Introduction to Philosophy and First-Year Seminars are intended to present introductions to philosophical problems and techniques of analysis. There are no prerequisites for these entry-level courses. Students may not take more than one introductory level course (First-Year Seminar or Introduction to Philosophy), with one exception: students may take Logic either before or after taking any other introductory course.
Juniors and seniors may enter intermediate courses in philosophy without having taken an introductory level course in philosophy.

## Course Major

One can major in philosophy in either the Course Program or the Honors Program. Internal distribution requirements are the same for both programs. Only students who will have satisfactorily completed two philosophy courses by the end of their sophomore year will be considered for acceptance as majors. Normally, applications to complete a major in philosophy will not be accepted after the add/drop period in the fall term of a student's senior year.
Philosophy students changing their program from course to honors (or honors to course) must do so by the end of the add/drop period of the fall term of senior year.

## Acceptance Criteria

In addition to having completed two courses, majors must meet the general requirements for remaining in good standing at the College and have the ability to satisfy the department's comprehensive requirements. They must further normally have at least a B- average in all philosophy courses taken at Swarthmore. For double majors, the standard is somewhat higher, and the philosophy faculty determines whether the
student has the ability to complete the comprehensive requirements of two departments satisfactorily.

## Requirements

Students majoring in philosophy must earn a total of eight credits, exclusive of senior work and complete at least
A. One course or seminar in logic and
B. Two credits in history: of these 2 credits, at least 1 must be in either ancient or modern (17th and 18th century) philosophy and
C. Two credits in at least one course covering one or more of the following areas: Advanced Logic, Philosophy of Science, Epistemology,
Metaphysics, Philosophy of Language, Philosophy of Mind and
D. Two credits in at least one course covering one or more of the following areas: Moral Philosophy, Social and Political Philosophy, Philosophy of
Law, Feminism, Aesthetics.
Note: With the exception of Logic (PHIL 012) introductory level courses and First Year Seminars (PHIL 001-010) do not count toward the distribution requirements.
In addition, students majoring in philosophy are urged to take courses and seminars in diverse fields of philosophy. Prospective majors should complete the logic requirements as early as possible. Course majors are encouraged to enroll in seminars. Mastery of at least one foreign language is recommended.

## Senior Course Study work

A student will complete a course major in philosophy by registering for a single credit of Senior Course Study in the spring term of the senior year. Senior Course Study does not count toward fulfilling the eight credit requirement for the major. Under this heading, the student will produce two independent essays, each of no more than 4,000 words, based on problems or texts considered in seminars or courses that they have already completed, and in response to questions set by the department faculty. These two independent essays must fall in two different areas of philosophy from the following list:
A. History of Philosophy: Ancient Philosophy; Modern Philosophy; 19th-Century Philosophy; Existentialism and Phenomenology; and Contemporary Philosophy;
B. Value Theory: Moral Philosophy; Social and Political Philosophy; Aesthetics; Feminist Theory; Philosophy of Law
C. Logic, Metaphysics, and Epistemology: Logic,

Theory of Knowledge, Philosophy of Science, Philosophy of Psychology, Philosophy of Language
Students should inform the chair about the general areas in which they wish to write their essays by the 10th week of the fall term. The faculty of the

Philosophy Department will then set questions and specify additional readings (1-3 articles or book chapters) for each area. These questions will be available to students by the end of the fall term. It is expected that these essays will demonstrate initiative in engaging with problems and texts and that they will develop lines of argumentation beyond what is normally expected of course or seminar papers. Conversation among students who are preparing these essays is encouraged, but each student must produce an independent, original essay. After completing these essays, each course major will be examined orally on both essays by two members of the department.

## Course Minor

Students may complete a minor in philosophy by earning any 5 credits in philosophy courses. There is no distribution requirement for the minor.

## Honors Major

## Acceptance Criteria

Students undertaking to pursue honors in philosophy should have B+ grades in philosophy courses and a B+ average overall. The opinions of the philosophy faculty concerning the philosophical ability of students weigh heavily in borderline cases.
Only students who have already completed two philosophy courses will be considered for admission to the Honors Program.
Philosophy students changing their program from honors to course (or course to honors) must do so by the end of the add/drop period of the fall term of senior year.

## Preparations

Students will normally prepare for external examination in a given field in philosophy by completing a double-credit seminar at Swarthmore. With the approval of the department, it is possible to combine one-credit courses or attachments, taken either at Swarthmore or elsewhere, to form a preparation. With the approval of the department, a double-credit thesis may be counted as one preparation and submitted to an examiner.

## Requirements

Honors majors will register for one-credit of Seniors Honors Study in philosophy during the spring term of their senior year. Senior Honors Study does not count toward fulfilling the eight credit requirement for the major. External examiners will set questions and specify additional readings (3-4 articles or book chapters) for each preparation that is to be examined. These questions will be available to students by the end of the fall term. Honors majors will choose one question for each preparation.

## Senior Honors Study

Honors majors will then produce for each preparation an independent essay of no more than 4,000 words in response to the question they have chosen.
It is expected that these essays will demonstrate initiative in engaging with problems and texts and that they will develop lines of argumentation beyond what is normally expected of papers produced for seminar discussion. The preparation of the essays will not be supervised by members of the faculty. Conversation among students who are preparing these essays is encouraged, but each student must produce an independent, original essay. The essays must be submitted to the department to be sent to the external examiners by the beginning of the written examination period. There will be no further written examination of preparations beyond these independent essays. An examiner will conduct a 60 minute oral examination for each preparation on both the independent essay and the materials considered in the preparation (typically all the materials listed on the syllabus for the related seminar).

## Honors Minor

## Requirements

Honors minors must complete six credits of work in philosophy. In special cases, with approval of the department, one or two of these credits may be closely related topics taught outside the philosophy department that are well-integrated with their work in philosophy. Minors in philosophy will register for 0.5 credit of Senior Honor Study in the spring term of their senior year. Senior Honors Study does not count toward satisfying the six credit requirement for the minor.

## Senior Honors Study

Students will prepare one independent, original essay of no more than 4,000 words in response to a question set by an external examiner (as above with majors). An external examiner will conduct a 60 minute oral examination on both the independent essay and the materials considered in the preparation (typically all the materials listed on the syllabus for the related seminar).

## Application Process Notes for the Major or the Minor

Follow the process described by the Dean's Office and the Registrar's Office for how to apply for a major. Submit application, with transcript, plan of study, and if applicable, honors application.
Transfer students will be deferred until they have obtained at least 1 philosophy credit from Swarthmore.
Students who are deferred may apply again after addressing the reason(s) for being deferred.

## Off-Campus Study

With prior approval from the Chair, a student may take philosophy courses abroad for a semester or year and have them count both toward a major and as part of an Honors Program. Courses abroad do not, however, always fit neatly into a philosophy major and are not always suitable for full course credit. Full consultation with the Chair about study abroad is essential for constructing a viable program.

## Deadlines

Students wishing to add a major or minor in Philosophy must do so by the end of the add/drop period of the fall term of the senior year.
Philosophy students changing their program from course to honors (or honors to course) must do so by the end of the add/drop period of the fall term of the senior year.
Philosophy honors students must declare their honors preparations by the end of the add/drop period of the fall term of senior year.
Philosophy students wishing to drop an honors major or minor must do so by the end of the add/drop period of the fall term of the senior year. Philosophy students wishing to drop a course major or minor after the add/drop period of the fall term of the senior year should speak to the chair of the department.

## Courses

## PHIL 001. Introduction to Philosophy

Philosophy addresses fundamental questions that arise in various practices and inquiries. Each section addresses a few of these questions to introduce a range of sharply contrasting positions. Readings are typically drawn from the works of both traditional and contemporary thinkers with distinctive, carefully argued, and influential views regarding knowledge, morality, mind, and meaning. Close attention is paid to formulating questions precisely and to the technique of analyzing arguments through careful consideration of texts.
1 credit.
Each semester. Staff.

## Section 1: Knowledge and Agency

What shall I do? What are the demands of morality? What is their basis (if there is one)? What is freedom of the will and do we enjoy it? Why is death bad? What is the meaning of life? (Does it have a meaning?) What can we know? What is knowledge? Are we just material beings or do we possess an immaterial (and, perhaps immortal) soul? These are and have always been fundamental philosophical questions. We will deal with them by reading and discussing classical as
well as contemporary philosophical texts.
Writing course.
1 credit.
Fall 2014. Baumann.

## Section 3: Truth and Desire

This course is designed to develop your natural ability to think philosophically by heightening your sense of wonder and honing your critical skills. We will take a historical approach, starting with Plato and then reading Descartes and Nietzsche before turning to more contemporary theorists like Frantz Fanon and Sandra Bartky. Throughout the course, we will pursue questions about truth (What is it? How does it relate to knowledge? When do we know that we know?) as well as questions about desire (What do we want? How does that relate to what we should want, our ideas of the good life, and the kind of life we should lead?) and the relationship between the two.
Writing course.
1 credit.
Fall 2014. Lorraine.

## Section 4: Knowledge and the World

"Men fear thought as they fear nothing else on earth-more than ruin, more than even death." Bertrand Russell believed that education's primary goal should be to instill in students not only the ability to seek knowledge, but also the desire for it, the joy of it, and the appreciation of its power. For Russell, this was also an essential component of philosophy. In this course, we will investigate the quest for knowledge itself: what are we looking for and how should we be looking for it? We will read some of the canonical answers to these questions as well as some answers that are not so canonical. We will ask what knowledge is, what kinds of knowledge we can have, and what it is exactly that we can know.
Writing course.
1 credit.
Spring 2015. Thomason.

## PHIL 003. First-Year Seminar: The Meaning

 of LifeWhat is the meaning of life? Isn't this question too big for us? Do we even understand the question? This course will engage critically with several philosophical attempts to make sense of this fundamental question; we will discuss different answers to it. More specifically, we will deal with questions like the following: Can life have a meaning only if there is a God? Isn't life just absurd? Is there anything that really matters? Is death a problem for the attempt to lead a meaningful life? (and wouldn't immortality be a good alternative?) What is the role of purpose, purposes and plans in our lives? Is a meaningful life a happy life? What role do values and goals
play in a meaningful life? And, finally: What is a good life?
Writing course.
1 credit.
Spring 2015. Baumann.

## PHIL 005. First-Year Seminar: Human

## Nature

Who are we? Who are we becoming? Who could we become? Are we masters of the universe, coparticipants in a larger whole, or instigators of an out-of-control path to destruction? What makes us distinct? How do we compare with other animals or machines? What part does our technology play in who we are? We will read classic conceptions of human nature drawn from the Western tradition of philosophy like Plato, Descartes, Rousseau, Kant, and Nietzsche. And we will consider interdisciplinary material drawn from evolutionary theory, animal studies, robotics, and neuroscience in order to consider how we might revise or rethink some of these earlier conceptions.
Writing course.
1 credit.
Not offered 2014-2015.
PHIL 006. First-Year Seminar: Life, Mind, and Consciousness
Classical problems of the nature and extent of life, the modern problems of mind and body, and contemporary issues that center on consciousness and thought serve as a chronological introduction to central philosophical issues. Individual writing conferences supplement plenary discussion sessions.
Writing course.
1 credit.
Fall 2014. Raff.

## PHIL 008B. First-Year Seminar:

Philosophy, Culture, and Film
On how some major philosophers (Plato,
Descartes, Marx, with some attention to Hegel and Nietzsche) have criticized forms of social and personal life and argued against the grains of their cultures in favor of life otherwise. Their work will be continuously compared with creative work on problems of human life by some major filmmakers (Herzog, Capra, Hawks).
Writing course.
1 credit.
Spring 2015. Eldridge.
PHIL 010. First-Year Seminar: Questions of Inquiry
Classical and contemporary philosophical readings on questions of the nature and rationale for inquiry in science, morality, religion, and in philosophy itself.

## Philosophy

Writing course.
1 credit.
Fall 2014. Raff.

## PHIL 011. Moral Philosophy

'What should I do?' This question is as old as philosophy itself. Just as it is one of the oldest and most complex philosophical puzzles, it also frequently occupies the minds of individuals in their day-to-day lives. In this course, we will focus on both ways of approaching this question. From the philosophical direction, we will discuss the ways in which philosophers have attempted to understand and describe our moral beliefs and commitments. From the practical direction, we will ask ourselves what it means to ascribe to these moral theories and how we might be able to actually live them.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for PEAC credit.
1 credit.
Spring 2015. Thomason.

## PHIL 012. Logic

An introduction to the principles of deductive logic with equal emphasis on the syntactic and semantic aspects of logical systems. The place of logic in philosophy will also be examined.
No prerequisite. Required of all philosophy
majors.
Eligible for COGS credit.
1 credit.
Fall 2014. Eldridge.

## PHIL 013. Modern Philosophy

Seventeenth- and 18th-century theories of knowledge, morals, and metaphysics studied in philosophical masterpieces by Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL
012, before enrolling in this course.
1 credit.
Spring 2015. Raff.
PHIL 016. Philosophy of Religion
(Cross-listed as RELG 015B)
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for INTP credit.
1 credit.
Fall 2014. Wallace.
PHIL 017. Aesthetics
On the nature of art and its roles in human life, considering problems of interpretation and
evaluation and some specific medium of art: Who should care about art? Why? How?
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012 , before enrolling in this course.
1 credit.
Not offered 2014-2015

## PHIL 018. Philosophy of Science

(See PHIL 119)
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
1 credit.
Not offered 2014-2015.

## PHIL 019. Philosophy and Literature and

 FilmThis course will focus on two interrelated issues 1) the natures of literature and film, and 2 ) their value for human life. Close attention will be paid to the formal, structural, thematic, aesthetic, and material features of works of literary and film art.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL
012, before enrolling in this course.
Eligible for INTP credit.
1 credit.
Not offered 2014-2015.
PHIL 020. Plato and His Modern Readers
(Cross-listed as CLAS 020)
Plato's dialogues are complex works that require
literary as well as philosophical analysis. While
our primary aim will be to develop interpretations of the dialogues themselves, we will also view Plato through the lens of various modern and postmodern interpreters (e.g., Nietzsche, Heidegger, Derrida, Jung, Foucault, Irigaray, Rorty, Lacan, Nussbaum, Vlastos)
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for CLST credit.
Writing course.
1 credit.
Spring 2015. Ledbetter.
PHIL 021. Social and Political Philosophy
The focus of this course is to explore the relationship between the individual and the state. We will examine three different conceptions of individuals and the three different theories of the state to which they give rise: political realism, political liberalism, and critical political theory. First we examine the historical foundations of these three theories. Then we will read contemporary work on particular issues in order to
draw out the implications of the three frameworks. We will see how each framework deals with questions about censorship, personal liberty, civil disobedience, and national security.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.

## PHIL 023. Metaphysics

Traditional issues of reality and appearance, and traditional topics of God, Freedom, and Immortality are background for contemporary questions of being.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012 , before enrolling in this course. 1 credit.
Not offered 2014-2015.

## PHIL 024. Theory of Knowledge

What is knowledge? Can we have it? If not, why not? If yes, how? Can we have a priori, "armchair" knowledge? Is cognition essentially social? What, if anything, is problematic about inductive inferences? How do our different senses relate to each other? In what consists the value of knowledge (if any)? We will discuss classic and contemporary answers to such questions.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for COGS credit.
Writing course.
1 credit.
Spring 2015. Raff.

## PHIL 025. Philosophy of Mathematics

Topics will include the nature of mathematical objects and mathematical knowledge, proof and truth, mathematics as discovery or creation, the character of applied mathematics, and the geometry of physical space. A considerable range of 20th-century views on these topics will be investigated including logicism (Frege and Russell), formalism (Hilbet), intuitionism (Brouwer and Dummett), platonism (Gödel), and empiricism (Kitcher). Important mathematical results pertaining to these topics, their proofs, and their philosophical implications will be studied in depth (e.g., the paradoxes of set theory, Gödel's incompleteness theorems, and relative consistency proofs for non-Euclidean geometries).
Prerequisites: Logic, acceptance as a major in mathematics, or approval of instructor. 1 credit.
Not offered 2014-2015.

PHIL 026. Language and Meaning
(Cross-listed as LING 026)
Language is an excellent tool for expressing and communicating thoughts. You can let your friend know that there will probably be fewer than 25 trains from Elwyn to Gladstone next Wednesday-but could you do this without using language? (have you tried?) Even more interesting is the question how you can do this using language. How can the sounds I produce or the marks that I leave on this sheet of paper be about the dog outside chasing the squirrel? How can words refer to things and how can sentences be true or false? Where does meaning come from? Philosophy has dealt with such questions for a long time but it was only a bit more than 100 years ago that these questions have taken center stage in philosophy. We will read and discuss such more recent authors, starting with Frege, Russell and Wittgenstein and leading up to authors like Austin, Quine, Kripke and Putnam.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for COGS credit.
1 credit.
Fall 2014. Baumann.
PHIL 031. Advanced Logic
A survey of various technical and philosophical issues arising from the study of deductive logical systems. Topics are likely to include extensions of classical logic (e.g., the logic of necessity and possibility [modal logic], the logic of time [tense logic], etc.); alternatives to classical logic (e.g., intuitionistic logic, paraconsistent logic);
metatheory (e.g., soundness, compactness, Gödel's incompleteness theorem); philosophical questions (e.g., What distinguishes logic from non-logic? Could logical principles ever be revised in the light of empirical evidence?).
Prerequisite: PHIL 012.
Eligible for COGS credit.
1 credit.
Not offered 2014-2015.

## PHIL 035. Environmental Ethics

Environmental ethics is normative moral and political philosophy as it pertains to environmental questions, concerns and issues. Here are some of the questions we'll examine: Who counts in environmental ethics: animals, plants, ecosystems? E.g., culling deer in the Crum woods is bad for the deer killed but good for the flora and other fauna of the Crum; Does nature possess intrinsic value or only instrumental value?; Are values merely subjective e.g., expressions of personal preference or taste, or can they be, in some sense, objective?; Is there one sound environmental ethic or several?; Should we accept the claims of so-called "deep ecology" or is a more pragmatic approach better?;

Should we be more concerned with sustaining, restoring, or preserving the environment e.g., with respect to wilderness?; How do we resolve a conflict between feeding people and saving nature?; Can we integrate human rights with environmentalism? Democratic decision making? This course is open to all, though it would be desirable if students had at least one philosophy course.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for ENVS credit.
1 credit.
Not offered 2014-2015.

## PHIL 039. Existentialism

In this course, we will examine existentialist thinkers such as Nietzsche, Kierkegaard,
Heidegger, Sartre, Beauvoir, and Camus to explore themes of contemporary European philosophy, including the self, responsibility and authenticity, and the relationships between body and mind, fantasy and reality, and literature and philosophy.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL
012, before enrolling in this course.
Eligible for INTP credit.
1 credit.
Spring 2015. Lorraine.

## PHIL 040. Semantics

(Cross-listed as LING 040)
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Note: This is not a writing course for PHIL. 1 credit.
Fall 2014 and spring 2015. Staff.
PHIL 045. Futures in Feminism
In this course, we will investigate the future directions feminist theory in the 21st century could or should take by looking at recent feminist theory and asking where we can go from here. Areas we will investigate include transnational theory, poststructuralist feminist theory, cultural theory, third-wave theory, critical race theory, and queer theory as well as theories that may not easily fit into any prevailing category of feminist thought.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015.
PHIL 049. Marx, Nietzsche, and Freud
This course will examine the work of three 19thcentury "philosophers of suspicion" who
challenged the self-presence of consciousness by considering consciousness as an effect of other forces. Their investigations into one's understanding of truth as the effect of will-topower (Nietzsche), one's understanding of reality as the effect of class position (Marx), and consciousness as the effect of unconscious forces (Freud) provide an important background to contemporary questions about the nature of reality, human identity, and social power.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for INTP credit.
1 credit.
Fall 2014. Lorraine.
PHIL 051. Human Rights and Atrocity
Are there such things as human rights? If so, where do they come from and how are they best conceived? What should we do when they are violated? This course examines the theoretical underpinnings of human rights. To try to understand and answer these questions, we will read traditional philosophical arguments and accounts of human rights in addition to philosophical examinations of atrocities like genocide. We will then use the philosophical works to examine specific historical examples of human rights violations such as genocide, war rape, and apartheid.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.
PHIL 052. Bioethics
Advances in medicine and biological research have no doubt contributed both to the body of human knowledge and to the advances of modern life. But these great strides are accompanied by serious ethical questions and those questions are the topic of this course. We will approach issues in bioethics from two perspectives. First, we will grapple with the ethical issues themselves, such as the use of human subjects in experimentation, physician-assisted suicide, and the rights of reproduction (among many others). Second, we will examine these issues at the level of policy: what can doctors, patients, researchers, and lawmakers actually do about any of these issues and how do we go about making those hard choices?
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012 , before enrolling in this course. 1 credit.
Not offered 2014-2015.

## PHIL 055. Philosophy of Law

In this course, we will examine some of the major theories of law: what exactly is law and why do we have to follow it? We then move to specific questions about criminal law, punishment, and civil disobedience. We conclude with a discussion of issues in international law and just war theory.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course. 1 credit.
Fall 2014. Thomason.
PHIL 059. Humans, Animals, and Robots The philosophical tradition of phenomenology takes lived experience as its starting point and insists upon the embodied nature of human minds. Once we take our embodiment seriously, how different are we from other animals? And what would it take for computer circuits to replicate something like human sentience? What can phenomenological descriptions of lived experience add to our understanding of who we are? This course will take a phenomenological perspective on what it is to be human and explore questions about embodiment, consciousness, rationality, affect, and identity, as well as the boundaries between the human and other forms of sentience.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012 , before enrolling in this course. 1 credit.
Not offered 2014-2015.
PHIL 061. Philosophy of Race and Gender Philosophers have long been interested in questions of identity, but that topic has largely been approached from the perspective of an abstract self. Female and LBGTQ philosophers and philosophers of color explore identity from within particular perspectives that are informed by gender and race. The authors we will read explore philosophical questions about race and gender through a mix of personal narratives and conceptual analysis. We will be primarily concerned with three broad issues of identity: (1) how race and gender have been historically understood and (2) how race and gender are experienced by individuals, and (3) how race and gender ought to be conceived.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for BLST and GSST credit.
Writing course.
1 credit.
Not offered 2014-2015.
PHIL 069. Phenomenology-Then and Now
In this course we will take a phenomenological perspective on lived experience in order to
investigate questions about subjectivity, perception, temporality, and the roots of knowledge in being-in-the-world. How does abstract thought emerge from pre-reflective immersion in the world and what kind of light might a closer look at lived experience shed on questions about who we are, what we know, and how we ought to live? In addition to close readings of classic figures in phenomenology like Edmund Husserl, Martin Heidegger, and Maurice MerleauPonty, we will read work that manifests phenomenology's continued relevance to questions we face in the 21st century about what it means to be human, embodied cognition, and environmental change.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012, before enrolling in this course.
Eligible for INTP credit.
Writing course.
1 credit.
Not offered 2014-2015.

## PHIL 079. Poststructuralism

This course will examine poststructuralist thinkers such as Foucault, Derrida, Kristeva, and Deleuze in light of contemporary questions about identity, embodiment, the relationship between self and other, and ethics.
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL 012 , before enrolling in this course.
Writing course.
1 credit.
Not offered 2014-2015.
PHIL 086. Philosophy of Mind
(See PHIL 118)
Prerequisite: First- and second-year students must complete one course in PHIL 001-010, or PHIL
012, before enrolling in this course.
Eligible for COGS credit.
1 credit.
Not offered 2014-2015.
PHIL 093. Directed Reading
Requires approval of a department faculty member sponsor.
Each semester. Staff.
PHIL 096. Senior Course Thesis
Requires approval of a department faculty member sponsor and the department.
Each semester. Staff.
PHIL 099. Senior Course Study
Required for all philosophy course majors. 1 credit.
Spring semester. Staff.

## Seminars

## PHIL 101. Moral Philosophy

An examination of the principal theories of value, virtue, and moral obligation-and their justification. The focus will be primarily on contemporary treatments of moral philosophy. A central question of seminar will be the possibility and desirability of moral theory.
2 credits.
Not offered 2014-2015.

## PHIL 102. Ancient Philosophy

For the Greeks and Romans, philosophy was a way of life and not merely an academic discipline. With this perspective in mind, we will examine topics in ethics, metaphysics, aesthetics, epistemology, and theology through close readings of Plato's Republic and Aristotle's Nichomachean Ethics. We will also look more briefly at the thought of the Presocratics and the Stoics. 2 credits.
Eligible for CLST credit.
Fall 2014. Ledbetter.
PHIL 103. Selected Modern Philosophers One or more 17th-or 18th-century philosophers selected for systematic or comparative study. 2 credits.
Not offered 2014-2015.

## PHIL 104. Topics in Metaphysics

One or more central topics in contemporary metaphysics selected for sustained study: include: freedom, causation, universals, categories, necessity, identity of things and people, fiction, God.
2 credits.
Not offered 2014-2015.

## PHIL 106. Aesthetics and Theory of

 CriticismOn the nature of art and its roles in human life, considering problems of interpretation and evaluation and some specific medium of art. Eligible for INTP credit.
2 credits.
Spring 2015. Eldridge.

## PHIL 113. Topics in Epistemology

What is knowledge? Can we have it? If not, why not? If yes, how? What does it mean to have evidence, justification or reasons for ones beliefs? How rational or irrational are we? Can we have a priori, "armchair" knowledge? Is cognition essentially social? We will discuss classic and contemporary answers to such questions.
Eligible for COGS credit.
2 credits.
Not offered 2014-2015.

PHIL 114. Nineteenth-Century Philosophy
The historical treatment of such topics as
knowledge, morality, God's existence, and freedom in Kant, Fichte, Hegel, Feuerbach, Marx, and Nietzsche.
Eligible for INTP credit.
2 credits.
Fall 2014. Eldridge.
PHIL 116. Language and Meaning
(Cross-listed as LING 116)
Behaviorist theories of meaning, cognitivist theories of meaning, and conceptions of language as a social practice will be surveyed and criticized. Eligible for COGS credit.
2 credits.
Not offered 2014-2015.

## PHIL 118. Philosophy of Mind

The course is divided into three principal sections, focusing on philosophy of mind, artificial intelligence, and cognitive science. Section 1 covers four core positions in the philosophy of mind "dualism, behaviorism, materialism, and functionalism," and it serves as an overview of traditional philosophy of mind. Section 2 explores how the philosophical ideas developed above connect to ongoing research in artificial intelligence. Section 3 concerns the philosophy of cognitive science, a field that investigates the biological and neurophysiological underpinnings of human mentality. Part of the aim is to clarify the goals and methods of cognitive science and to investigate ways in which advances in cognitive science may yield philosophical insights into the nature of mind.
Eligible for COGS credit.
2 credits.
Spring 2015. Baumann.

## PHIL 119. Philosophy of Science

A study of philosophical problems arising out of the presuppositions, methods, and results of the natural sciences, focusing particularly on the effectiveness of science as a means for obtaining knowledge. Topics include the difference between science and pseudoscience; the idea that we can "prove" or "confirm" scientific theories; explanation and prediction; the status of scientific methodology as rational, objective, and value free; and the notion that science aims to give us (and succeeds in giving us) knowledge of the underlying unobservable structure of the world. 2 credits.
Not offered 2014-2015.
PHIL 121. Social and Political Philosophy The focus of this seminar is justice: what makes a society or a state just and how to we deal with issues of oppression and injustice? We begin with historical conceptions of political power and

## Philosophy

examine critiques of these traditions. We then turn to current questions about the nature of justice from the liberal, libertarian, neo-Marxist, and feminist traditions. We end the course with a discussion of current issues of social justice.
2 credits.
Fall 2014. Thomason.
PHIL 125. Philosophy of Mathematics
Mathematics is a discipline whose elegance, rigor, and stunning usefulness across a huge variety of applications has made it a central part of every school and college curriculum. But what exactly is mathematics about? At one level, the answer seems obvious: Mathematics is about numbers, functions, sets, geometrical figures, and so on. But what are these things? Do they exist? If so, where? And how do we come to know anything about them? If they do not exist, what makes mathematics true? This seminar will tackle these issues and look at what some of the great philosophers such as Plato, Descartes, Kant, and Wittgenstein have had to say about mathematics. 2 credits.
Not offered 2014-2015.
PHIL 139. Phenomenology, Existentialism, and Poststructuralism
In this course, we will examine the themes of reality, truth, alienation, authenticity, death, desire, and human subjectivity as they emerge in contemporary European philosophy. We will consider thinkers such as Nietzsche, Husserl, Heidegger, Derrida, and Irigaray to place contemporary themes of poststructuralist thought in the context of the phenomenological and existential tradition out of which they emerge.
Eligible for INTP credit.
2 credits.
Spring 2015. Lorraine.

## PHIL 180. Senior Honors Thesis

A thesis may be submitted by majors in the department in place of one honors paper, on application by the student and at the discretion of the department.
Each semester. Staff.
PHIL 199. Senior Honors Study
Required of all philosophy honors students.
1 credit majors; 0.5 credit minors.
Spring semester.

ADAM HERTZ, Director of Physical Education and Athletics
NNENNA AKOTAOBI, Associate Director of Athletics, Senior Woman Administrator
KAREN BORBEE, Professor
SUSAN P. DAVIS, Professor ${ }^{1}$
MICHAEL L. MULLAN, Professor
TODD ANCKAITIS, Head Coach/Instructor
PETER CARROLL, Head Coach/Instructor
HARLEIGH CHWASTYK, Head Coach/Instructor
RENEE CLARKE, Head Coach/Instructor
RENEE L. DEVARNEY, Head Coach/Instructor
LAUREN FUCHS, Head Coach/Instructor
PAT GRESS, Head Coach/Instructor
LANDRY KOSMALSKI, Head Coach/Instructor
JEREMY LOOMIS, Head Coach/Instructor
MATTHEW MIDKIFF, Head Coach/Instructor
ERIC WAGNER, Head Coach/Instructor
JIM HELLER, Head Coach (part time)
BHAVIN PARIKH, Head Coach (part time)
MARIAN FAHY, Administrative Assistant
SHARON GREEN, Administrative Assistant
${ }^{1}$ Absent on leave, fall 2014.

The aim of the department is to contribute to the total education of all students through the medium of physical activity. We believe this contribution can best be achieved through encouraging participation in a broad program of individual and team sports, aquatics, physical fitness, and wellness. The program provides an opportunity for instruction and experience in a variety of activities on all levels. It is our hope that participation in this program will foster an understanding of movement and the pleasure of exercise and will enhance, by practice, qualities of good sportsmanship, leadership, and cooperation in team play. Students are also encouraged to develop skill and interest in a variety of activities that can be enjoyed after graduation.
The Intercollegiate Athletics Program is comprehensive, including varsity with teams in 22 different sports: 10 for men and 12 for women. Ample opportunities exist for large numbers of students to engage in intercollegiate competition, and those who qualify may be encouraged to participate in regional and national championship contests. Several club teams in various sports are also organized, and a program of intramural activities is sponsored.

## Requirements and Recommendations

Students are encouraged to enjoy the instructional and recreational opportunities offered by the department throughout their college careers. As a requirement for graduation, all nonveteran students, not excused for medical reasons, are required to complete 4 units of physical education by the end of their sophomore year. In addition, all
students must pass a survival swim test or complete one-quarter of aquatics instruction. Students who enter Swarthmore as transfer students can either apply transfer PE units toward the 4 -unit physical education requirement or opt for a reduction in the PE requirement based on the student's transfer status, but transfer students cannot both transfer PE units and receive a reduction in the requirement. The optional reduction in PE units depends on the transfer class of the student. Transfer students who enter Swarthmore as sophomores can opt to complete 3 units of physical education and pass a survival swim test (a reduction of 1 PE unit). Transfer students who enter Swarthmore as juniors can opt to complete 2 units of physical education and pass a survival swim test (a reduction of 2 PE units).
Courses offered by the department are listed subsequently. Credit toward completion of the physical education requirement will also be given for participation in intercollegiate athletics, as well as PE Dance Courses, which are semester-long courses. Credit will also be given for participation in approved club sports and student activity groups. The approved club sports are as follows: fencing, ruby, Ultimate Frisbee, men's volleyball and men's badminton. The approved student activity groups are as follows: aikido, capoeira, folk dance, swing dance, tango, squash, men's soccer and Quidditch.
Independent study for physical education is not permitted.

## Physical Education

## Courses

Fall
Aquatics II/III
Badminton
Basketball
Beginning Aquatics
Bowling
Cardio Tennis
Core Ball Training
Fitness Training
Gym Class Hero
Orienteering
Pilates
Step Dance Aerobics
Tennis
Volleyball
Walk, Jog, Run
Water Aerobics
Wellness Seminar
Spring
Aquatics II/III
Badminton
Basketball
Beginning Aquatics
Bowling
Cardio Tennis
Core Ball Training
Fitness Training
Pilates
Step Dance Aerobics
Table Tennis
Tennis
Walk, Jog, Run
Wellness Seminar

## PE Dance Courses

These courses are offered through the Dance Department. See the Music and Dance section of the course catalog and the Swarthmore College Schedule of Courses and Seminars for fall and spring PE dance course offerings.

## Intercollegiate Athletics

Fall
Men's Cross Country
Women's Cross Country
Field Hockey
Men's Soccer
Women's Soccer
Women’s Volleyball

## Winter

Badminton
Men's Basketball
Women's Basketball
Men's Swimming
Women's Swimming
Men's Indoor Track
Women's Indoor Track
Spring
Baseball
Golf
Men's Lacrosse
Women's Lacrosse
Softball
Men's Tennis
Women's Tennis
Men's Outdoor Track
Women’s Outdoor Track

MICHAEL R. BROWN, Professor of Physics and Chair
DAVID H. COHEN, Professor of Astronomy
PETER J. COLLINGS, Professor of Physics ${ }^{1}$
AMY LISA GRAVES, Professor of Physics
ERIC L.N. JENSEN, Professor of Astronomy
FRANK A. MOSCATELLI, Professor of Physics ${ }^{2}$
CATHERINE H. CROUCH, Associate Professor of Physics ${ }^{3}$
CARL H. GROSSMAN, Associate Professor of Physics
BENJAMIN D. GELLER, Visiting Assistant Professor of Physics and Research Associate
CAROL GUESS, Visiting Assistant Professor of Physics
TRISTAN SMITH, Visiting Assistant Professor of Physics
DAVID SCHAFFNER, Post-Doctoral Research Scientist
MARY ANN KLASSEN, Senior Lecturer
ADAM NEAT, Lecturer
PAUL JACOBS, Instrumentation Technician
STEVEN PALMER, Machine Shop Supervisor
CAROLYN R. WARFEL, Administrative Assistant
${ }^{1}$ Absent on leave, fall 2014.
${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

The Physics and Astronomy Department teaches the concepts and methods that lead to an understanding of the fundamental laws governing the physical universe.
Emphasis is placed on quantitative, analytical reasoning, as distinct from the mere acquisition of facts. Particular importance is also attached to laboratory work because physics and astronomy are primarily experimental and observational sciences.
With the awareness that involvement in research is a major component in the education of scientists, the department offers a number of opportunities for students to participate in original research projects, conducted by members of the faculty, on campus.
Several research laboratories are maintained by the department to support faculty interests in the areas of laser physics, high-resolution atomic spectroscopy, plasma physics, nano physics, computer simulation, liquid crystals, and observational and theoretical astrophysics.
The department operates the Peter van de Kamp Observatory for student and faculty research, plus several small telescopes for instructional use. The observatory is equipped with a $61-\mathrm{cm}$ reflecting telescope, a high-resolution spectograph, and a CCD camera for imaging and photometry. A monthly visitors' night at the observatory is announced on the department website.
Swarthmore College is also home to the historic Sproul 61-cm refracting telescope.
Two calculus-based introductory sequences are offered. PHYS 003 and 004 cover both classical and modern physics and is an appropriate introductory physics sequence for those students majoring in engineering, chemistry, and biology. PHYS 007 and 008, on the other hand, which are
normally preceded by PHYS 005, are at a higher level. They are aimed toward students planning to do further work in physics or astronomy and are also appropriate for engineering and chemistry majors. The sequence of courses from PHYS 005 to PHYS 018 is designed to provide a comprehensive introduction to the major topics and mathematical tools of physics.
Additional information is available at www.swarthmore.edu/physics.

## The Academic Program

In order to receive a degree from Swarthmore as a physics, astrophysics, or astronomy major, a student must have taken and satisfactorily passed one of the programs described below. In the Physics and Astronomy Department, the seminar is the standard format for most junior and senior level work. All prospective majors and minors in the department should realize this when planning programs. The seminars are open to all students, both honors and course majors.

## Core Programs

In the spirit of a liberal arts education, we note that one need not be considering a career in physical science to find a physics, astrophysics, or astronomy major beneficial and stimulating. The physics core curriculum and the astronomy core curriculum listed below both provide excellent training in quantitative reasoning and independent problem solving, skills that are applicable in a wide variety of arenas (finance, law, medicine, science journalism, public policy). Since all of the fundamental areas are covered, the physics core curriculum is also excellent preparation for a career in a scientific field related to physics, such as engineering or teaching physics in high school. The astronomy curriculum is excellent preparation
for teaching astronomy in high school, or working as a telescope operator or data analyst. These curricula are ideal for double majors.
While the physics core curriculum is adequate preparation for graduate study in physics, students considering graduate school are encouraged to take additional seminars, especially those listed below under "Enhanced Programs." Most graduate programs in astronomy expect somewhat more physics preparation than the minimum listed in the astronomy curriculum. Those considering graduate school in astronomy are encouraged to take as much additional physics as scheduling permits, and ideally, to choose the astrophysics major listed below under "Enhanced Programs."

* Note: The Mathematics and Statistics Department offers many sets of courses covering similar material at different levels of sophistication. In each case noted, the most elementary version from each set has been listed. Students should always take the most advanced version for which they qualify, e.g. MATH 034 or 035 rather than MATH 033, if possible.


## Physics Core Curriculum

PHYS 005
PHYS 007, 008, 013, 015, 017, 018
PHYS 111, 112, 113, 114
PHYS 063, 081, $082^{\dagger}$
MATH* 015, 025, 027, 033
Astronomy Core Curriculum
PHYS 005
PHYS 007, 008, 013, 015, ASTR 016, ASTR 061
Four Astronomy seminars (can include upper-level astronomy courses at Haverford)
MATH* $015,025,027,033$
Under some circumstances, PHYS 003, 004 can be substituted for PHYS 007, 008.
${ }^{\dagger}$ Students who have taken ENGR 072 may substitute PHYS 083 instead of PHYS 081, 082.

## Enhanced Programs

These programs provide strong preparation for graduate study in physics, astrophysics, or astronomy.

## Physics Enhanced Curriculum

In addition to the physics core requirements listed above, any two advanced seminars

## Astrophysics Curriculum

PHYS 005
PHYS 007, 008, 013, 015, 017, 018,
ASTR 016
Two Astronomy Seminars
PHYS 111, 112, 113, 114
MATH* $015,025,027,033$

## Other Requirements

Seniors not in the Honors Program must complete a comprehensive exercise, which is intended both to encourage review and synthesis and to allow students to demonstrate mastery of fundamentals studied during all four years. In addition, all students must satisfy the College distribution requirements and the 20-course rule (except for special majors such as astrophysics or chemical physics, for whom the 20 -course rule is waived).

## Course Major

A student applying to become either a physics major in the core program or an astronomy major should have completed or be completing PHYS 005 and either PHYS 004 or PHYS 008. Otherwise it will be impossible to fulfill all program requirements. To be accepted as a major, the applicant must have received grades of C+ or better in Physics, Astronomy, and Math courses.
A student applying to become a physics major in either the enhanced program in course or the Honors Program should have completed or be completing courses through PHYS 008, PHYS 013, PHYS 015, PHYS 017, PHYS 018. In addition, to be accepted into the course major, these courses must be completed with an average grade of $\mathrm{C}+$ or better. To be accepted into the Honors Program with a physics major, the average grade should be a B or better. Grades in math courses should be at a similar level.
A student applying to become an astrophysics major in course or in honors should have completed or be completing PHYS 008, PHYS 013, PHYS 015, PHYS 017, PHYS 018, and ASTR 016. To be accepted into the Honors Program with an astronomy major, the applicant should have completed or be completing ASTR 016. In addition, applicants for the Honors Program in either astrophysics or astronomy must normally have an average grade in physics and astronomy courses of B or better.
Since almost all advanced work in physics and astronomy at Swarthmore is taught in seminars where the student participants share the pedagogical responsibility, an additional consideration in accepting (retaining) majors is the presumed (demonstrated) ability of the students not only to benefit from this mode of instruction but also to contribute positively to the seminars. Grades in prior courses are the best criteria in admitting majors, since they tend to indicate reliably whether or not the student can handle advanced work at Swarthmore levels without being overwhelmed. However, constructive participation in classes and laboratories is also considered.

Program for the Last Two Years
The following one-credit physics seminars are offered on a regular basis (regardless of faculty leaves):
Prerequisites: PHYS 005, 007, 008, 013, 015, 017, and 018

PHYS 111. Classical Mechanics
PHYS 112. Electrodynamics
PHYS 113. Quantum Theory
PHYS 114. Statistical Physics
Additional prerequisite: ASTR 016
ASTR 121. Research Techniques in
Observational Astronomy (offered in alternate years)
ASTR 123. Stars and Stellar Structure (offered in alternate years)
ASTR 126. The Interstellar Medium
(offered in alternate years)
In addition, one or two one-credit advanced physics seminars are offered
each year. Typical topics are:
PHYS 130. General Relativity
PHYS 131. Particle Physics
PHYS 132. Non-Linear Dynamics and
Chaos
PHYS 133. Atomic Physics and
Spectroscopy
PHYS 134. Advanced Quantum
Physics
PHYS 135. Solid State Physics
PHYS 136. Quantum Optics and Lasers
PHYS 137. Computational Physics
PHYS 138. Plasma Physics
PHYS 139. Biophysics

## Course Minor

The Physics and Astronomy Department offers two types of course minor, one in physics and one in astronomy.
Physics Minor Curriculum
PHYS 005
PHYS 007
PHYS 008
PHYS 013
PHYS 015
PHYS 017
PHYS 018
PHYS 111 and $113^{\dagger}$
MATH* 015, 025, 033
Under some circumstances, PHYS 003 and/or
PHYS 004 may be substituted for PHYS 007
and/or PHYS 008.
${ }^{\dagger}$ We prefer that minors have two advanced
seminars, one in "classical" and one in
"quantum" physics. PHYS 111 is a prerequisite for future seminars and fulfills the "classical" requirement. While we recommend PHYS 113 as the second advanced seminar, a different seminar may be substituted upon consultation with the Chair.

## Astronomy Minor Curriculum PHYS 005 <br> PHYS 007 or PHYS 003 <br> PHYS 008 or PHYS 004 <br> ASTR 016

One Astronomy seminar numbered 100 or above One semester of ASTR 061 (0.5 credits) MATH* 015, 025, 033

* Note: The Mathematics and Statistics

Department offers many sets of courses covering similar material at different levels of sophistication. In each case noted, the most elementary version from each set has been listed. Students should always take the most advanced version for which they qualify.

## Honors Major

Honors majors must meet the requirements for the major as described above, and select three of the following preparations, plus their prerequisites.

## Honors Major Programs

Physics: Electrodynamics (PHYS 112), Quantum Theory (PHYS 113), Statistical Physics (PHYS 114), Honors Thesis (PHYS/ASTR 180)

Astrophysics: Any of the seminars from the astronomy program, plus: Electrodynamics (PHYS 112), Quantum Theory (PHYS 113), Statistical Physics (PHYS 114), Honors Thesis (PHYS/ASTR 180)
Note: must include at least one seminar each from astronomy and physics.
Astronomy: Research Techniques in Observational Astronomy (ASTR 121), Stars and Stellar Structure (ASTR 123), The Interstellar Medium (ASTR 126), Honors Thesis (ASTR 180)
Note: External examination for honors major programs includes two or three 3-hour written examinations on the chosen preparations, plus two or three 30-45 minute oral examinations on the chosen preparations, plus one 45-60 minute oral examination on the honors thesis (for thesis writers).

## Honors Minor

Physics: One of the following seminars PHYS 112, PHYS 113, PHYS 114
Astrophysics: One of the following seminars PHYS 112, PHYS 113, PHYS 114, ASTR 121, ASTR 123, ASTR 126

Astronomy: One of the following seminars (ASTR 121, ASTR 123, ASTR 126)
Note: External examination for honors minor programs includes one three-hour written examination on the chosen preparations, plus one 30-45 minute oral examination on the chosen preparations.

## Research Opportunities

## Advanced Laboratory Program

In the junior and senior years, all physics majors must take PHYS 081 and PHYS 082. Students enrolled in PHYS 081 and PHYS 082 must arrange their programs so that they can schedule an afternoon for the laboratory each week free of conflicts with other classes, typically Friday afternoon. Enrollment in each of these laboratories will appear on the student's transcript with a letter grade for 0.5 credit for each semester. PHYS 081, 082 together count as a "writing course" for collegiate graduation requirements. Students with credit for ENGR 072 may replace PHYS 081, 082 with PHYS 083, which is an advanced lab experience without an electronics component.

## Independent Work

Physics, astrophysics, and astronomy majors are encouraged to undertake independent research projects, especially in the senior year, either in conjunction with one of the senior seminars, or as a special project for separate credit (PHYS/ASTR 094). Members of the physics or astronomy faculty are willing to suggest possible projects and to supervise one of these if the student chooses to pursue it. Students completing work under PHYS/ASTR 094 are required to submit final written and oral reports of their work to the department. In preparation for independent experimental work, prospective physics majors are strongly urged to take the required 0.5 credit course PHYS 063, Procedures in Experimental Physics, during their fall semester of their sophomore year, which will qualify them to work in the departmental shops. There are usually many opportunities for students to receive financial support to work with faculty members on research projects during the summer.

## Thesis

Students may do a theoretical or experimental research thesis representing the results of independent work done under the supervision of a faculty member. This thesis will usually cover work begun in the summer after the junior year and completed during the senior year. A thesis is recommended of all students in the Honors Program.

## Off-Campus Study

With proper planning, study away from
Swarthmore for one or two semesters is possible while majoring in physics, astronomy, or
astrophysics. However, the many prerequisites in the Physics and Astronomy Department make careful planning for study abroad a necessity. Spring of junior year is often the easiest time to make this work. The important point is to begin planning at an early stage. This allows students (1) to make sure courses not available abroad are taken at Swarthmore, and (2) to find out well in advance what physics and astronomy courses are available in the various study abroad programs. While it is completely feasible to complete a physics major without taking physics abroad (e.g. if one is studying in a non-English-speaking country), students should note when planning their programs that PHYS 111 must be taken before PHYS 113 or PHYS 114.

## Teacher Certification

We offer teacher certification in physics through a program approved by the state of Pennsylvania. For further information about the relevant set of requirements, contact the Educational Studies Department chair, the Physics Department chair, or visit the Educational Studies Department website at
www.swarthmore.edu/educationalstudies.xml.

## Physics Courses

PHYS 002E. First-Year Seminar: Energy
This seminar will cover both the physics and policy of energy in all its forms. Topics include the physical basis for energy; thermodynamics and engines; energy sources (fossil fuels, solar, photovoltaics, nuclear); transportation; the electric grid; and climate change.
Prerequisite: High school algebra.
1 credit.
Not offered 2014-2015.
PHYS 002M. First-Year Seminar: Physics in Modern Medicine
The impact that physics has had on the practice of clinical medicine in the past decade has been nothing short of staggering. This seminar introduces nonscientists to the physics behind many of the diagnostic and therapeutic techniques of modern medicine as well as the basic physics behind many physiological systems in the human body. In addition to the scientific basis of the subject, covered in a modern text, the societal, ethical and economic implications will be treated through readings from other sources and through medical site visits. Topics will include: laser surgery, photodynamic therapy, ultrasound imaging, $x$-ray and radionuclide imaging, computer tomography (CAT or CT scans), positron emission tomography (PET scans), radiation therapy, magnetic resonance (MRI) and recent advances in optical imaging methods. Prerequisites: None. Mathematical level: only algebra and some basic trigonometry.

1 credit.
Fall 2014. Moscatelli.

## PHYS 003. General Physics I

Topics include vectors, kinematics, Newton's laws and dynamics, conservation laws, work and energy, oscillatory motion, systems of particles, and rigid body rotation. Possible additional topics are special relativity and thermodynamics. Includes one laboratory weekly.
Natural sciences and engineering practicum.
Prerequisite: MATH 015 (can be taken concurrently).
1 credit.
Fall 2014. Graves.

## PHYS 004. General Physics II

Topics include wave phenomena, geometrical and physical optics, electricity and magnetism, and direct and alternating current circuits. Possible additional topics may be added. Includes one laboratory weekly.
Natural sciences and engineering practicum.
Prerequisites: PHYS 003 or the permission of the instructor, MATH 025 (can be taken concurrently).
1 credit.
Spring 2015. Collings.
PHYS 004L. General Physics II: Electricity, Magnetism, and Optics with Biological and Medical Applications
PHYS 004L will cover the same topics as PHYS 004 but will emphasize biological, biochemical, and medical applications of those topics. The course will meet medical school requirements (in conjunction with PHYS 003) and will include a weekly laboratory. Students who wish to take PHYS 004L before PHYS 003 must have some high school physics background and obtain permission from the instructor.
Natural sciences and engineering practicum.
Prerequisites: MATH 015 or a more advanced calculus course; PHYS 003 or permission of the instructor.
1 credit.
Spring 2015. Geller.

## PHYS 005. Spacetime and Quanta

This course presents an introduction to the twin pillars of contemporary physics: relativity and quantum theory. Students will explore the counterintuitive consequences of special relativity for our understanding of space and time, and the nature of the subatomic quantum world, where our notions of absolute properties such as position or speed of a particle are replaced by probabilities. It is the usual entry point to majoring or minoring in astronomy, astrophysics, or physics, and is a preor co-requisite for the sophomore-level physics major curriculum; it welcomes both non-majors
and prospective majors who are interested in engaging rigorously and deeply with both the mathematical and conceptual descriptions of physics. Physics 005 will be taught seminar-style, with student presentation of problem solutions and ideas playing an essential role. Includes some afternoon labs and some evening telescope observing. Not eligible for NSEP credit. 1 credit.
Fall 2014. Smith.
PHYS 007. Introductory Mechanics
An introduction to classical mechanics. This course is suitable for potential majors, as well as students in other sciences or engineering who would like a course with more mathematical rigor and depth than PHYS 003. Includes the study of kinematics and dynamics of point particles conservation principles involving energy, momentum and angular momentum; rotational motion of rigid bodies, and oscillatory motion. Includes one laboratory weekly: used for hands-on experimentation and occasionally for workshops that expand on lecture material.
Natural sciences and engineering practicum.
Prerequisites: MATH 025 (can be taken concurrently), PHYS 005 or permission of the instructor.
1 credit.
Fall 2014. Guess.

## PHYS 008. Electricity, Magnetism, and

 WavesA sophisticated introductory treatment of wave and electric and magnetic phenomena, such as oscillatory motion, forced vibrations, coupled oscillators, Fourier analysis of progressive waves, boundary effects and interference, the electrostatic field and potential, electrical work and energy, D.C. and A.C. circuits, the relativistic basis of magnetism, Maxwell's equations, and geometrical optics. Includes one laboratory weekly.
Natural sciences and engineering practicum.
Prerequisites: PHYS 007 (or permission of instructor); MATH 033 (can be taken concurrently).
1 credit.
Spring 2015. Smith.

## PHYS 013. Thermodynamics / Statistical

 MechanicsA half-semester introductory course in thermal and statistical physics. Topics include energy, heat, work, entropy, temperature (the First, Second and "Third" Laws of Thermodynamics), heat capacity, ideal gases, paramagnetism, phase transitions, and the chemical potential. This course serves as a prerequisite for PHYS 114 and for PHYS 135. This class has a weekly laboratory requirement.

Prerequisite: single-variable calculus (MATH 025 or 026); may be taken as a corequisite with permission of the instructor.
First half of the semester.
0.5 credit.

Spring 2015. Grossman.

## PHYS 015. Optics

A half-semester introduction to geometric and wave optics, including ray diagrams, matrix optics, polarization, Jones matrices, interference, and diffraction. This class has a weekly laboratory requirement.
Prerequisite: single-variable calculus (MATH 025
or 026); may be taken as a corequisite with permission of the instructor.
Second half of the semester.
0.5 credit.

Spring 2015. Grossman.

## PHYS 017. Mathematical Methods of

 PhysicsA half-semester survey of mathematical techniques useful in physics. Topics include eigenvalue problems, Fourier analysis, solutions to ordinary and partial differential equations, special functions, the theory of residues, and numerical methods. Includes a weekly numerical laboratory. Prerequisite: linear algebra (MATH 027, 028, or 028S); corequisite: multivariable calculus (MATH 033,034 , or 035 ).
First half of the semester.
0.5 credit.

Spring 2015. Brown.

## PHYS 018. Quantum Mechanics

A half-semester introductory course in quantum mechanics. Topics include waves, photons, the Schrodinger equation, Dirac notation, onedimensional potentials, quantized angular momentum, and central potentials. This course serves as a prerequisite for PHYS 113. This class has a weekly laboratory requirement.
Prerequisites: PHYS 005, PHYS 017, and MATH
27; corequisite: multivariable calculus (MATH 033,034 , or 035 ).
Second half of the semester.
0.5 credit.

Spring 2015. Brown.
PHYS 024. The Earth's Climate and Global Warming
A study of the complex interplay of factors influencing conditions on the surface of the Earth. Basic concepts from geology, oceanography, and atmospheric science lead to an examination of how the Earth's climate has varied in the past, what changes are occurring now, and what the future may hold. Besides environmental effects, the economic, political, and ethical implications of global warming are explored, including possible
ways to reduce climate change. Includes one laboratory every other week.
Natural sciences and engineering practicum. 1 credit.
Not offered 2014-2015.

## PHYS 027. The Dark Universe

This course introduces non-science students to our modern understanding of cosmology. In the short span of 40 years, modern cosmology has
transformed from a purely theoretical field to one overflowing with increasingly precise data. As a result, our picture of how the universe came into being and how it evolves in time has come into near-perfect focus: it seems as though, after thousands of years of thought, we may be on the cusp of understanding the physical nature of our ultimate origin. Although correct in certain respects, this sense of understanding may not be as founded as we might hope. We will critically explore the theoretical motivation and observational evidence that supports our modern cosmological model. We will also discuss the social and philosophical implications of humanity's attempts to understand and order the cosmos.
1 credit.
Not offered 2014-2015.
PHYS 029. Seminar on Gender and

## (Physical) Science

This seminar will take a multifaceted approach to the question: "What are the connections between a person's gender, race, or class and their practice of science?" The history of science, the education of women and feminist pedagogy, and philosophy of science will be addressed. Physical science will be the principal focus. Includes some laboratory work.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015.

## PHYS 093. Directed Reading

This course provides an opportunity for an individual student to do special study, with either theoretical or experimental emphasis, in fields not covered by the regular courses and seminars. The student will present oral and written reports to the instructor.
$0.5,1$, or 2 credits.
Each semester. Staff.
PHYS 094. Research Project
Initiative for a research project may come from the student, or the work may involve collaboration with ongoing faculty research. The student will present a written and an oral report to the department.
$0.5,1$, or 2 credits.
Each semester. Staff.

## Physics Advanced Seminars

## PHYS 111. Analytical Dynamics

Intermediate classical mechanics. Motion of a particle in one, two, and three dimensions;
Kepler's laws and planetary motion; phase space; oscillatory motion; Lagrange equations and variational principles; systems of particles; collisions and cross sections; motion of a rigid body; Euler's equations; rotating frames of reference; small oscillations; normal modes; and wave phenomena.
Prerequisites: PHYS 005, 007, 008, and 017.
1 credit.
Fall 2014. Grossman.

## PHYS 112. Electrodynamics

Electricity and magnetism using vector calculus, electric and magnetic fields, dielectric and magnetic materials, electromagnetic induction, Maxwell's field equations in differential form, displacement current, Poynting theorem and electromagnetic waves, boundary-value problems, radiation and four-vector formulation of relativistic electrodynamics.
Co-requisite: PHYS 111.
1 credit.
Fall 2014. Brown.
PHYS 113. Quantum Theory
Postulates of quantum mechanics, operators, eigenfunctions, and eigenvalues, function spaces and hermitian operators; bra-ket notation, superposition and observables, fermions and bosons, time development, conservation theorems, and parity; angular momentum, three-dimensional systems, matrix mechanics and spin, coupled angular momenta, time-independent and timedependent perturbation theory.
Prerequisites: PHYS 018, 111; PHYS 112 strongly recommended.
1 credit.
Spring 2015.

## PHYS 114. Statistical Physics

The statistical behavior of classical and quantum systems; temperature and entropy; equations of state; engines and refrigerators; statistical basis of thermodynamics; microcanonical, canonical, and grand canonical distributions; phase transitions; statistics of bosons and fermions; black body radiation; electronic and thermal properties of quantum liquids and solids.
Prerequisites: PHYS 013, 111.
1 credit.
Spring 2015. Graves.
PHYS 115. Modern and Quantum Optics
A modern treatment of matrix optics, interference, polarization, diffraction, Fourier optics, coherence, Gaussian beams, resonant cavities, optical
instruments. The quantization of the electromagnectic field, single mode coherent and quadrature squeezed states. The interaction of light with atoms using second quantization and dressed states. Spontaneous emission.
Prerequisites: PHYS 015, 111, 112 (or concurrently with instructor's permission), and 113.

1 credit.
Not offered 2014-2015.

## PHYS 130. General Relativity

Newton's gravitational theory, special relativity, linear field theory, gravitational waves, measurement of space-time, Riemannian geometry, geometrodynamics and Einstein's equations, the Schwarzschild solution, black holes and gravitational collapse, and cosmology.
Prerequisites: PHYS 111 and 112.
1 credit.
Spring 2015. Smith.

## PHYS 131. Particle Physics

A study of the ultimate constituents of matter and the nature of the interactions between them.
Topics include relativistic wave equations, symmetries and group theory, Feynman calculus, quantum electrodynamics, quarks, gluons, and quantum chromodynamics, weak interactions, gauge theories, the Higgs particle, and some of the ideas behind lattice gauge calculations.
Prerequisites: PHYS 113 (may be taken concurrently).
1 credit.
Not offered 2014-2015.
PHYS 135. Condensed Matter Physics
Crystal structure and diffraction, the reciprocal lattice and Brillouin zones, lattice vibrations and normal modes, phonon dispersion, Einstein and Debye models for specific heat, free electrons and the Fermi surface, electrons in periodic structures, the Bloch Theorem, band structure, semiclassical electron dynamics, semiconductors, magnetic and optical properties of solids, and superconductivity. Prerequisites: PHYS 113 and PHYS 114.
1 credit.
Not offered 2014-2015.

## PHYS 138. Plasma Physics

An introduction to the principles of plasma physics. Treatment will include the kinetic approach (orbits of charged particles in electric and magnetic fields, statistical mechanics of charged particles) and the fluid approach (single fluid magnetohydrodynamics, two fluid theory).
Topics may include transport processes in plasmas (conductivity and diffusion), waves and oscillations, controlled nuclear fusion, and plasma astrophysics.
Prerequisite: PHYS 112.

1 credit.
Not offered 2014-2015.

## PHYS 180. Honors Thesis

Theoretical or experiment work culminating in a written honors thesis. Also includes an oral presentation to the department. This course must be completed by the end of, and is normally taken in, the fall semester of the student's final year.
1 or 2 credits.
Each semester. Staff.

## Physics Laboratory Program

PHYS 063. Procedures in Experimental Physics
Techniques, materials, and the design of experimental apparatus; shop practice; printed circuit design and construction. This is a 0.5 -credit course open only to majors in physics, astrophysics, or astronomy.
0.5 credit.

Fall 2014. Technical staff.
PHYS 081. Advanced Laboratory I
This is the first of a two-semester sequence designed to fulfill the physics major advanced laboratory requirement. Students will perform projects in digital electronics. They will also perform experiments chosen from among the areas of thermal and statistical physics, solid state, atomic, plasma, nuclear, biophysics, condensed matter physics, and advanced optics.
Writing course.
0.5 credit.

Each semester. Staff.
PHYS 082. Advanced Laboratory II
This is the second of a two-semester sequence designed to fulfill the physics major advanced laboratory requirement. Students will perform projects in digital electronics. They will also perform experiments chosen from among the areas of thermal and statistical physics, solid state, atomic, plasma, nuclear, biophysics, condensed matter physics, and advanced optics. When both PHYS 081 and 082 are taken, students will receive credit for having completed a writing (W) course.
Writing course.
0.5 credit.

Each semester. Staff.
PHYS 083. Advanced Laboratory I and II
This course is designed to fulfill the physics major advanced laboratory requirement for students who have already had sufficient experience with digital electronics (ENGR 072 or the equivalent). Students will perform experiments chosen from among the areas of thermal and statistical physics, solid state, atomic, plasma, nuclear, biophysics, condensed matter physics, and advanced optics.

Writing course.
0.5 credit.

Each semester. Staff.

## Astronomy Courses

## ASTR 001. Introductory Astronomy

The scientific investigation of the universe by observation and theory, including the basic notions of physics as needed in astronomical applications. Topics may include the appearance and motions of the sky; history of astronomy; astronomical instruments and radiation; the sun and planets; properties, structure, and evolution of stars; the galaxy and extragalactic systems; the origin and evolution of the universe; and prospects for life beyond Earth. Includes six evening labs. Natural sciences and engineering practicum. 1 credit.
Fall 2014. Jensen.

## ASTR 006. Introductory Cosmology

A half-semester introductory course on cosmology, with an emphasis on the basics of standard Big Bang cosmology, its theoretical framework, and its observational underpinnings. Topics covered will include a qualitative treatment of general relativity, a Newtonian derivation of the Friedmann equation and associated solutions for model universes, the expansion of the Universe, the cosmic microwave background, and big-bang nucleosynthesis. We also will explore more recent observational measurements of the properties of dark matter and dark energy as well as the growth of structure in the Universe. This course is intended for first-year students who are considering physics, astrophysics, or astronomy majors but it is suitable for other students with similar backgrounds and interests as well.
Prerequisites: Math 25 or equivalent being taken at least concurrently; some classical physics, at least at the high school level. No astronomy background is presumed.
Second half of semester.
0.5 credit.

Not offered 2014-2015.

## ASTR 016. Modern Astrophysics

This is a one-semester calculus- and physics-based introduction to astrophysics as applied to stars, the interstellar medium, galaxies, and the large-scale structure of the universe. The course includes four evening laboratories and observing sessions.
Prerequisites: MATH 015 and 025, and some prior work in calculus-based physics (which could include high school physics). Recommended (but not required) pre- or co-requisites are PHYS 013; PHYS 015; and/or PHYS 007 or PHYS 003. Interested students should consult with the instructor.

1 credit.
Fall 2014. Cohen.

## ASTR 061. Current Problems in Astronomy and Astrophysics

Reading and discussion of selected research papers from the astronomical literature. Techniques of journal reading, use of abstract services, and other aids for the efficient maintenance of awareness in a technical field. May be repeated for credit. Credit/No Credit only.
Prerequisite: ASTR 016.
0.5 credit.

Spring 2015. Cohen.
ASTR 093. Directed Reading
(See PHYS 093)
ASTR 094. Research Project
(See PHYS 094)

## Astronomy Seminars

Students interested in upper-level work in astronomy are encouraged to also consult Haverford's course schedule, since the two astronomy programs actively work to offer complementary topics.

## ASTR 121. Research Techniques in

 Observational AstronomyThis course covers many of the research tools used by astronomers. These include instruments used to observe at wavelengths across the electromagnetic spectrum; techniques for photometry, spectroscopy, and interferometry; various methods by which images are processed and data are analyzed; and use of online resources including data archives and bibliographic databases. Students will perform observational and data analysis projects during the semester.
Prerequisite: PHYS 015; ASTR 016.
1 credit.
Not offered 2014-2015.

## ASTR 123. Stellar Astrophysics

An overview of physics of the stars, both atmospheres and interiors. Topics may include hydrostatic and thermal equilibrium, radiative and convective transfer nuclear energy generation, degenerate matter, calculation of stellar models, interpretation of spectra, stellar evolution, white dwarfs and neutron stars, nucleosynthesis, supernovae, and star formation.
Prerequisites: PHYS 013; ASTR 016. PHYS 017 and 018 recommended.
1 credit.
Not offered 2014-2015.
ASTR 125. Stars in the Interstellar Medium An overview of physics of the stars with related interstellar medium topics. Topics may include hydrostatic and thermal equilibrium, energy
transport, nuclear energy generation, degenerate matter and compact objects, interpretation of spectra, stellar evolution, nucleosynthesis, and transitioning to the interstellar medium topics supernovae, star formation, cooling mechanisms, emission nebulae, absorption spectroscopy of interstellar clouds, hydrodynamics and shock waves, interstellar molecules, and dust.
Prerequisites: PHYS 013; ASTR 016. PHYS 017 and 018 recommended.
1 credit.
Spring 2015. Cohen.

## ASTR 126. The Interstellar Medium

Study of the material between the stars and radiative processes in space, including both observational and theoretical perspectives on heating and cooling mechanisms, physics of interstellar dust, chemistry of interstellar molecules, magnetic fields, emission nebulae, hydrodynamics and shock waves, supernova remnants, star-forming regions, the multiphase picture of the interstellar medium.
Prerequisites: PHYS 013; ASTR 016. PHYS 017 and 018 recommended.
1 credit.
Not offered 2014-2015.

## ASTR 129. Cosmology

Cosmology is the study of the overall structure, history, and future evolution of the universe. This seminar will cover the following topics: the distance ladder; Hubble’s law; Einstein's general theory of relativity; Friedmann models of the Universe; high-redshift supernovae; the cosmic microwave background; dark matter and dark energy; the early universe including big bang nucleosynthesis and inflation; the age of the universe and the "Cosmic Concordance."
Prerequisites: ASTR 016, or PHYS 13 and PHYS 17.

1 credit.
Fall 2014. Cohen.
ASTR 180. Honors Thesis
(See PHYS 180)
1 or 2 credits.
Each semester. Staff.

JAMES R. KURTH, Professor Emeritus
CAROL NACKENOFF, Professor and Acting Chair
KENNETH E. SHARPE, Professor
RICHARD VALELLY, Professor
TYRENE WHITE, Professor ${ }^{1}$
GIOVANNA DI CHIRO, Lang Visiting Professor for Issues of Social Change
BENJAMIN BERGER, Associate Professor
CYNTHIA HALPERN, Associate Professor ${ }^{2}$
KEITH REEVES, Associate Professor ${ }^{3}$
DOMINIC TIERNEY, Associate Professor
AYSE KAYA, Assistant Professor
SHERVIN MALEKZADEH, Assistant Professor
KATHERINE S. JAVIAN, Visiting Assistant Professor
ADNAN A. NASEEMULLAH, Visiting Assistant Professor
GINA INGIOSI, Administrative Assistant
DEBORAH SLOMAN, Administrative Assistant
${ }^{1}$ Absent on leave, fall 2014.
${ }^{2}$ Absent on leave, spring 2015.
${ }^{3}$ Absent on leave, 2014-2015.

## The Academic Program

To graduate with the major in political science, a student must complete the equivalent of at least eight courses in the department, plus 0.5 credit requirement for completing the senior comprehensive exercise. At least five of these eight courses must be taken at Swarthmore, including all of the distribution requirements (see below), and two introductory level courses (POLS $001,002,003,004,010$ ) must be completed at Swarthmore before acceptance as a major. Introductory level courses will count as distribution requirements with the exception of POLS 001, which only satisfies the theory requirement for honors minors and special majors.

## Distribution of courses within the

 departmentPolitical science majors are required to take one course or seminar in each of the three subfield areas: 1) American politics; 2) comparative or international politics; and 3) political theory.
Courses in American politics include:
Environmental Politics, Constitutional Law, American Elections, Lesbians and Gays in American Politics, Political Parties and Elections, Congress and the American Political System, Polling, Public Opinion and Public Policy, Politics of Voting Rights, U.S. Presidency, Race and American Development, Urban Underclass, Democratic Theory and Practice (POLS 019), Politics of Punishment, and others.
Courses in comparative and international politics include: Latin American Politics, China and the World, Defense Policy, American Foreign Policy, The Causes of War, Globalization, International Political Economy, and others.
Courses in political theory include: Practical Wisdom, Ancient Political Theory, Modern

Political Theory, Democratic Theory and Practice (POLS 019), Ethics and Public Policy, and others.

## Political theory requirement

At least one course in ancient or modern political theory is required of all majors. This requirement can be met by enrollment in either one course or one honors seminar, listed below. It is strongly recommended that all majors complete this requirement no later than their junior year.
Eligible courses are:
POLS 011. Ancient Political Theory
POLS 012. Modern Political Theory
POLS 100. Ancient Political Theory
POLS 101. Modern Political Theory
There are many other political theory courses taught in the department. However, only ancient or modern political theory, either the course or the seminar, actually count as fulfilling the political theory requirement. Courses taken abroad or outside of Swarthmore are not considered the equivalent of these courses. This requirement must be met at Swarthmore, in the Political Science Department.

## Lotteries

Sometimes courses have to be lotteried. If a student is lotteried for a course one semester, their name will go on a list and they will not be lotteried for that same course the next semester that the course is offered.

## Course Major

1. Course prerequisites. Students must have completed two introductory courses at Swarthmore (POLS 001, 002, 003, 004, 010) by the end of their first semester of sophomore year. This is the prerequisite for further work in the department and
acceptance into the major. Majors will be deferred from acceptance into the department until both intros are completed. Only one intro can be a firstyear seminar.
2. Grade requirements. We consider student applications to join the department individually, taking into account each student's background and college performance to date. Normally, the following expectations apply:
a. For acceptance as a course major, the department expects performance at the C level in all college courses and at the C+ level in courses in political science (including courses graded Credit/No Credit).
b. For acceptance as a double major, the department expects performance at the 3.0 level in all college courses and at the B+ level in courses in political science (including courses graded Credit/No Credit).
3. Prerequisites for individual courses. Students should note that certain courses and seminars have specific prerequisites.
4. The senior comprehensive requirement. To graduate from Swarthmore, all majors in the Course Program need to fulfill the senior comprehensive requirement in the Political Science Department. This can be done in one of two ways. The preferred option is POLS 092: the Senior Comprehensive Exam, which is a 0.5 credit graded exercise. Working with a faculty adviser, students will produce a short paper in the spring semester of their senior year, which connects work they have done in two different sub-fields of political science (political theory, American politics, comparative politics, and international relations). Students will then present their work at a department conference. Option two, POLS 095 is a one-credit graded written thesis, which may be chosen by students who meet the eligibility requirements and get the approval of a faculty adviser and the chair. All junior and senior course majors (unless abroad) are required to attend the department senior comprehensive exercise conference in March.
5. Recommended courses in other departments. Supporting courses strongly recommended for all majors are Statistical Thinking or Statistical Methods (STAT 001 or 011) and Introduction to Economics (ECON 001).

## Honors Major

1. Political science honors majors must meet all current distributional requirements for majors, including the political theory requirement, preferably with the honors versions of ancient or modern political theory.
2. They must have a minimum of ten credits inside the Political Science Department.
3. Six of these credits will be met with three (3) two-unit honors preparations which will help
prepare honors majors for outside examinations, both written and oral. These two-unit preparations will normally be either a two-credit honors seminar or a "course-plus" option.
Of these three (3) two-unit preparations, no more than two may be in a single field in the department, and no more than one may be a course-plus option.
The "course-plus" option will normally consist of two one-unit courses that have been designated to count as an honors preparation, or in some cases a one-unit course and a one-unit seminar that have been so designated. It is up to the student to arrange a course-plus option with a specific faculty member and to have this approved by the chair.
4. To fulfill the senior honors study requirement, students will revise a paper written for one of their department seminars. This paper will be submitted to the appropriate external examiner as part of the honors evaluation process.
5. To be accepted into the Honors Program students should normally have at least an average of 3.5 inside and 3.2 outside the department, and should have given evidence to the departmental faculty of their ability to work independently and constructively in a seminar setting. Seminars will normally be limited to eight students and admission priority will go to honors majors, first seniors and then juniors, including special majors. 6. Honors majors are strongly encouraged to attend the department senior comprehensive exercise conference in March.

## Admission to Seminars

Placement in honors seminars is normally limited to honors students. Occasionally, there is room in a seminar for highly qualified non-honors students, but this is rare and at the discretion of the teacher. Honors seminars in the Political Science Department are normally full. Students should request placement in scheduled honors seminars by including the seminar in the Sophomore Plan or by including it in the application for participation in the Honors Program. All honors students in the department must get the approval of the Chair of the department for their Honors Program by meeting with the chair. The department maintains priority lists for enrollment in every seminar we anticipate offering in the next two academic years. We add the names of qualified students to these lists in the order their requests for seminar placement are received, with honors majors always receiving priority over non-honors majors. Seniors, including special majors, are given priority over juniors and non-honors majors. If a seminar is full, the names of students who wish to be placed in that seminar are added to a waiting list.
To be fair to everyone, we ask each student not to request placement in more than two seminars in any one semester. In addition, there is an overall
limit of three seminars for majors and one seminar for others.
We make every effort to offer the seminars we announce. But inclusion on a priority list is not a guarantee that the seminar will be offered, or that you will get in. Sometimes seminars are lotteried. It is best to discuss your participation in a seminar with the faculty member who is teaching it.

## Honors Minor

1. Honors minors in political science will be required to have at least five credits in political science. Among these credits there must be one introductory course, one course in political theory, and a course in one other subfield. The political theory requirement can be met by enrolling in one of the following: Introduction to Political Theory (POLS 001), Ancient Political Theory (POLS 011), Modern Political Theory (POLS 012), Ancient Political Theory (POLS 100), Modern Political Theory (POLS 101). Only honors minors are allowed to count POLS 001, Introduction to Political Theory, for fulfillment of their theory requirement. This also means that honors minors can satisfy both the introductory course requirement and the theory requirement by taking POLS 001.
2. Minors must also take one (1) of the two-unit honors preparations offered by the department.

## Honors Exams

The honors exams will normally consist of a three hour written exam in each of the student's seminars, and an oral exam in each seminar, conducted by an external honors examiner

## Special Major

All special majors must have a designated faculty adviser and consult with the chair to receive approval for the proposed program. Within that approved program, six credits must be taken in the department and the distribution requirements must be met (see Distribution of Courses within the department section. Please note that POLS 001 Introduction to Political Theory normally satisfies the theory requirement for special majors.) All special majors are required to participate in the department's Senior Comprehensive exercise.

## Application for the Honors or Course Major

All applicants to the major are required to have completed two introductory courses before applying to the major or their application will be deferred.

## Application for the Honors Minor

All applicants to the minor are required to have completed one introductory course before applying to the minor or their application will be deferred.

## Advanced Placement/International Baccalaureate Credit

No more than one Advanced Placement credit will be accepted for course credit.

## Transfer Credit

Transfer credit is offered on the same basis as study abroad credit. Students taking classes elsewhere should consult the chair in advance on the amount of credit likely to be available. As with study abroad, students should retain all written assignments and present copies to the chair for assessment.

## Off-Campus Study

The department supports student interest in study abroad. Students are reminded that no more than three of their eight credits (ten credits if in the Honors Program) may be taken outside the Swarthmore department. Expectations about offcampus study should be incorporated in the Sophomore Plan. Students planning to study abroad should consult the chair and obtain approval prior to making final course selection. Any change in course selection must ultimately be approved as well. Upon return from a study abroad program, political science syllabi, papers, and other course materials should be submitted to the chair, or faculty member designated by the chair, for credit evaluation. Pre-estimated credits do not guarantee any particular transfer of credit. The actual transfer of credit depends on the assessment of work done abroad by the department.

## The Engaging Democracy Project

The Engaging Democracy Project incorporates academic theory and political practice to promote a richer understanding of American democracy. As program director, Professor Ben Berger practices "community-based learning" (or CBL) techniques to involve students with local communities; works with other professors offering CBL courses (including the political science department's Keith Reeves) to share resources and expertise and to improve pedagogy; and works with student groups to bring a wide range of speakers and activists to the Swarthmore campus.

## Courses

## POLS 001. Political Theory

This course is an introduction to political theory by way of an introduction to some of its most important themes, problems, and texts. It seeks to elicit an understanding of theory as a way of thinking about the world; theory as related to political practices and institutions; and theory as a form of politics. We will look at three central issues of politics-1) Justice; 2) Freedom; 3) Power, Knowledge and Values-over the course of the semester. The course proceeds topically as
well as chronologically, and we will return to certain primary classic theory texts more than once. Primary texts will include Plato, Aristotle, Hobbes, Locke, Mill, Marx and Foucault, as well as texts that present a contemporary perspective on each issue.
Writing course.
1 credit.
Fall 2014. Sharpe.
This course examines a range of arguments about the principles of justice-including rights, duties, utility, individual dignity, equality, and autonomy - that should govern our everyday behavior and our political experience. Authors include canonical theorists such as Plato, Xenophon, Kant, Bentham, Mill, Marx and Nietzsche, as well as more recent theorists such as Nozick, Rawls, Sandel and Nussbaum. Students will draw upon five modern movies (Scarface, Crimes \& Misdemeanors, Minority Report, It's a Wonderful Life, and Casablanca) as a means of grounding the questions in a contemporary sensibility.
Writing course.
1 credit.
Fall 2014. Halpern.

## POLS 002. American Politics

How do American institutions and political processes work? To what extent do they produce democratic, egalitarian, or rational outcomes? The course examines the exercise and distribution of political power. Topics include presidential leadership and elections; legislative politics; the role of the Supreme Court; federalism; parties, interest groups, and movements; public policy; the politics of class, race, and gender; voting; mass media; and public discontent with government. 1 credit.
Fall 2014. Nackenoff. Writing course. Fall 2014 and spring 2015. Javian (these sections are not Writing courses).

## POLS 003. Introduction to Comparative

 Political SystemsWhy did more than a century of democracy in Chile collapse violently into one of the most durable military regimes of the 20th century? What might a comparative examination of the Egyptian Arab Spring and the Indian decolonization movement teach us about the promises and conceptual limitations of revolutionary action? Is the United States "exceptional" in its politics, or is it a pale rival to the "post-national" project of the EU? This course asks students to push against conventional wisdom, the "obvious" and "permanent" truths of political and social life, to seek falsifiable, testable explanations for the anomalies, gaps, and mysteries in the domestic politics of states and countries. Lectures, essays, and classroom debates
will return over and over again to the following questions: What constitutes legitimate authority, and how is it reproduced? We will seek out answers by exploring how states, regimes, and governments in Europe, Asia, Africa, South America, and the Middle East conciliate difference and change, violently and non-violently, in relation to their respective societies. 1 credit.
Fall 2014 and spring 2015. Malekzadeh.
POLS 004. International Politics
In this course, we will explore the fundamental concepts of the field of international relations. Students will learn the basic facts about international conflict, the international economy, international law, development, and the world environment, among other things. Furthermore, we will study the fundamental theoretical concepts and theories of international relations. Using these theories, students will be able to sort through arguments about various topics in international relations and make judgment calls for yourself. Finally, students will learn how these concepts have evolved over time and how we can use them to hypothesize what lies ahead for international relations.
1 credit.
Fall 2014. Tierney. Spring 2015. Kaya.
POLS 010. First-Year Seminar: Reason, Power, and Happiness
This seminar will look at what classical theoristsparticularly Plato, Aristotle, and Hobbes-can teach us about the relationship between reason, power, and happiness. Among the questions we will explore are the following: What, if anything, is the difference between happiness and pleasure? Do we need to be powerful in order to be happy, and, if so, what kind of power do we need? What do we mean by reason? Is it a neutral capacitysilent about ends or values? Is it simply a tool to help us find the best means to our ends, to break down complex problems into understandable parts? Or is reason always the servant of powerful interests (our own or those of others) and thus inevitably a tool of the powerful to manipulate the weak? In this sense, are policy analysts, skilled at using reason to do cost-benefit calculations, simply hired guns, serving the interest of the powerful? Or is reason actually an integral part of the daily moral choices we make, as Aristotle argued when he wrote about practical wisdom (phronesis)?
1 credit.
Not offered 2014-2015.

## POLS 010C. First-Year Seminar: Mass

## Media, Politics, and Public Policy

This seminar will explore important conceptual, empirical, normative, and public policy questions surrounding media institutions as they wrestle with
new and increasingly controversial challenges created by the Internet's new technologies such as Web-based communities of like-minded
individuals. Moreover, we will critically examine the important and intricate role of public opinion, such that we might gain a finer appreciation of media influences on the workings of contemporary American government. Finally, we conclude with an examination of the economic, demographic, political, and technological forces that are propelling the present transformations surrounding mass media institutions-and ascertain their implications for American electoral politics and governance.
1 credit.
Not offered 2014-2015.

## POLS 010F. First-Year Seminar: When

 Disaster StrikesWhen a natural or man-made disaster strikes, what are the political repercussions? Using a variety of cases from a different historical periods, different regions of the world, different levels of politics (national, regional, and local), this course will examine both the causes and consequences of disaster. How does the trauma of disaster influence political processes, institutions, and leaders? Is the impact fleeting or enduring? A different case will be examined each week. In the final weeks of the semester, the class will choose several cases of interest to them that we will then investigate together.
1 credit.
Spring 2015. White.

## POLS 010H. First-Year Seminar: Disaster

This seminar will use a combination of reading materials and video footage to explore the links between politics and major disasters around the world. Looking at a series of major disasters in different parts of the world, and at different historical moments, we will examine both the origins and outcomes of these events, and the role of political forces, actors, or institutions in the causes or the aftermath of these events. We will also consider the extent to which any political lessons were learned from the events, and whether they were the right lessons. Both natural and manmade disasters will be examined.

## 1 credit.

Not offered 2014-2015.

## POLS 011. Ancient Political Theory:

Pagans, Jews, and Christians
This course covers the two great traditions that feed into the Modern Age. We begin with the Greeks, with tragedy and philosophy. We read Nietzsche's The Birth of Tragedy, Sohocles, Plato, and Aristotle. We contrast Greek philosophy with the biblical traditions that gave us history and salvation. We read from the Hebrew Bible, Genesis, Exodus, and the great prophets of the
exile, the New Testament, and the Gnostic Gospels and culminate in the grand transformation of both traditions into one foundation with Augustine's City of God.
1 credit.
Fall 2014. Halpern.

## POLS 012. Introduction to Modern Political

 ThoughtThis course introduces some of the major concepts and themes of modern political thought through a close reading of texts from the 16th to the early 20th century. The starting point of the course is Machiavelli's novel "science" of statecraft, which identified the state as the focal point of political activity, and announced that a good politician must be prepared to act immorally, or even love his city more than his soul. In other words, we begin with the thought of politics as a distinct sphere of activity, centered around the state, and separable from other spheres such as morality and religion. The problem of the modern state and the relationship of the political to other domains of life will guide our exploration of the fundamental concepts and debates of modern political thought. Other themes we will discuss include secularism and toleration, absolutist and popular sovereignty, constitutionalism and individual rights, theories of war and colonialism, and the relationship between social and political forms of domination. Authors include Niccolò Machiavelli, Thomas Hobbes, John Locke, Jean-Jacques Rousseau, Immanuel Kant, Alexis de Tocqueville, John Stuart Mill, Mary Wollstonecraft, Karl Marx, Max Weber and W.E.B. Dubois.

1 credit.
Spring 2015. Berger.

## POLS 013. Political Psychology and Moral

 EngagementThis course combines readings from the fields of political psychology, social psychology and political theory for the purposes of understanding ourselves as citizens and moral agents. Students will canvas theories as well as empirical studies that describe the processes of political and moral decision-making. We will also ask whether the same processes that usually lead to normal political and moral decision-making might occasionally produce disastrous consequences, and we will investigate means of avoiding the worst outcomes.
1 credit.
Not offered 2014-2015.

## POLS 015. Ethics and Public Policy

This course will examine the nature and validity of ethical arguments about moral and political issues in public policy. Specific topics and cases will include ethics and politics, violence and war, public deception, privacy, discrimination and affirmative action, environmental risk, health care,
education, abortion, surrogate motherhood, world hunger, and the responsibilities of public officials.
Eligible for PPOL credit.
1 credit.
Not offered 2014-2015.

## POLS 018. Race and American Political

 DevelopmentThe struggle against slavery, Civil War, emancipation, Reconstruction, resistance to black disenfranchisement and Jim Crow, the Great Migration, the civil rights movements of the 1950s, 1960s, and 1970s, the quest for the Civil Rights Act of 1964 and the Voting Rights Act of 1965, the election of President Barack Obama this short list suggests how consequential AfricanAmericans and their white allies-and their opponents-have been in shaping American political thought, associations and groups, national government, Congress, the Constitution and the Supreme Court, federalism, and public policy. Course is historical-and often comparative-in how it traces the continuously racialized nature of American politics.
1 credit.
Spring 2015. Valelly.

## POLS 019. Democratic Theory and Practice

What is democracy, and what does it require? Widespread political participation? Social connectedness? Economic equality? Civic virtue? Excellent education? How well does the contemporary U.S. meet those ideal standards? POLS 019 students read classic and recent texts in normative political theory and empirical political science-addressing what democracy should do and how well the U.S. is doing it augmented by a participatory component that requires several hours per week outside of class. Students engage with civic leaders and activists in the strikingly different communities of Swarthmore and Chester, and participate in a variety of community projects. The goal is to understand better the ways in which social, economic, educational and political resources can affect how citizens experience democracy.
1 credit.
Fall 2014. Berger.

## POLS 020. Public Opinion and American

 DemocracyHow do individuals form political opinions? How do those opinions affect American democracy? This course examines political attitude formation and the aggregation of these attitudes to form what we call "public opinion." The course covers individual level attitude formation, sampling and survey methodology, macro-level opinion and topics related to macro-level opinion including democratic values and policy representation. Students will become familiar with democratic
theory and the role that the public plays in democratic theory. Readings will cover cuttingedge social science research as well as the classics of public opinion and political behavior. Using social scientific research methods, students will research public opinion on a particular issue over time.
1 credit.
Spring 2015. Javian.

## POLS 021. American Political Parties and

 ElectionsConsiders how national parties organize presidential and congressional elections. Topics may include parties in democratic theory, presidential candidacies, presidential partybuilding, presidential campaigns during the general presidential election, presidential mandates, why parties remain persistently competitive, party polarization and income inequality, the development of partisan bases, and issue evolution and coalition maintenance in party politics. Prior course work in American politics not required but is helpful for comprehension. 1 credit.
Not offered 2014-2015.
POLS 022. American Elections: Ritual, Myth, and Substance
An examination of the role of policy issues, candidates images, campaign advertisements, media, polling, marketing, and political parties in the American electoral process. We will consider the role of race, gender, class, and other variables in voting behavior and look for evidence concerning the increasing polarization of American politics. We will examine the impact of recent laws and practices that seek to encourage or depress voting in the aftermath of the 2008 election, and will explore the impact of felony disenfranchisement. What are some of the most important recent changes affecting American electoral politics? Historical trends will provide the basis for analyzing upcoming elections. Do elections matter, and, if so, how?
1 credit.
Not offered 2014-2015.
POLS 024. American Constitutional Law The Supreme Court in American political life, with emphasis on civil rights, civil liberties, and constitutional development. The class examines the court's role in political agenda-setting in arenas including economic policy, property rights, separation of powers, federalism, presidential powers and war powers, and interpreting the equal protection and due process clauses as they bear on race and gender equality. Judicial review, judicial activism and restraint, and theories of constitutional interpretation will be explored.
1 credit.
Not offered 2014-2015.

POLS 029. Polling, Public Opinion, and Public Policy
Public opinion polling has become an essential tool in election campaigning, public policy decision making, and media reporting of poll results. As such, this course focuses on helping students interested in these areas learn the fundamental skills required to design, empirically analyze, use, and critically interpret surveys measuring public opinion. Because the course emphasizes the application of polling data about public policy issues and the political process, we will examine the following topics: abortion, affirmative action, September 11th, the 2008 and 2012 presidential elections and presidential leadership.
Prerequisite: POLS 002 or permission of the instructor.
Eligible for PPOL credit.
1 credit.
Not offered 2014-2015.
POLS 032. Gender, Politics, and Policy in America
Gender issues in contemporary American politics, policy, and law. Policy issues include the feminization of poverty, employment discrimination, pornography, surrogate parentage, privacy rights and sexual practices, workplace hazards, and fetal protection.
1 credit.
Not offered 2014-2015.

## POLS 037. Introduction to GIS for Social

 and Environmental AnalysisThis course is designed to introduce the foundations of GIS with emphasis on applications for social and environmental analysis. It deals with basic principles of GIS and its use in spatial analysis and information management. Students learn not only the theory and concepts of GIS but also how to use GIS software, ArcGIS10, with hands-on activities based on real world data sets. Students will learn to work with a variety of spatial databases including data sets pertaining to land use/land cover, parcel records, census demographics, environmental issues, water, transportation, local government, community development, and businesses. Technical topics to be covered include finding and understanding sources of information for spatial databases, integration of data from a variety of sources, database structure and design issues, spatial analysis capabilities, data quality and data documentation. Ultimately, students will design and carry out research projects on topics of their own choosing.
1 credit.
Fall 2014. Staff.

## POLS 038. Public Service, Community

Organizing, and Social Change
Through community-based learning, this seminar explores democratic citizenship in a multicultural society. Semester-long public service and community organizing internships, dialogue with local activists, and popular education pedagogy allow students to integrate reflection and experience.
1 credit.
Not offered 2014-2015.
POLS 040. The Politics of Voting Rights
The right to vote and who has it have been politically constructed and contested since the early 19th century. The course considers why and how this politics has taken so many different forms over the course of American political development, with particular attention to the strange career of African-American voting rights and their party systemic and policy impact, female suffrage, the demobilization of the working class early in the 20th century and its remobilization during the New Deal, the late development of protections for Native American, Latino, and Asian-American voters, and current struggles over election administration and voter qualifications. 1 credit.
Fall 2014. Valelly.

## POLS 042. Congress in the American

 Political SystemInstitutional evolution since the 19th century, the rise of the congressional career, participation in congressional politics by members of Congress themselves, parties in Congress, and House-Senate differences are the primary topics. Other issues may include the committee system, how congressional elections shape the institution, lobbying and interest groups in congressional process and politics, congressional influence on the bureaucracy, presidential influence on the legislative process, congressional interaction with the federal judiciary, the relative difficulty of conceptualizing and measuring representation, and deficit politics. Prior course work in or detailed knowledge of American politics is required. 1 credit.
Not offered 2014-2015.

## POLS 043. Environmental Policy and

 PoliticsTopics in environmental politics, policy, and law. In the United States, we focus on national regulation and proposals for more flexible responses to achieve environmental goals; environmental movements and environmental justice; the role of science in democratic policymaking; courts and the impact of federalism, the commerce clause, and rights on regulation. The course also considers the role and efficacy of supranational institutions and NGOs and
controversies between more and less developed nations. Topics include most of the following: air and water pollution, common-pool resource problems, toxic and radioactive waste, sustainable development, food, natural resource management, wilderness, environmental racism, effects of climate change.
Eligible for ENVS credit.
1 credit.
Not offered 2014-2015.

## POLS 043B. Environmental Justice:

 Theory and ActionExamines historical, political, and activist roots of the field of environmental justice. Using interdisciplinary approaches from political ecology, environmental science, history, geography, cultural studies, and social movement theory, we analyze diverse environmental justice struggles and community activism in contemporary environmental issues such as: air quality and health, toxic contamination and reproductive issues, sustainable agriculture and food security, fossil energy-coal, oil, hydro-fracking-and livelihoods, climate change and climate justice. Course incorporates a communitybased learning component.
1 credit.
Fall 2014. Di Chiro.

## POLS 046. Lesbians and Gays in American Politics

Considers the struggle for gay rights historically, treating the political and social construction of homophobic stigma over the course of the 20th century, the early struggle to build a movement, the iconic role of the Stonewall Rebellion, and the expansion of gay rights activism during and after the 1970s. Why and how gay rights became identified with same-sex marriage and equal military service are considered in some detail. We also treat the roles of the Supreme Court the two political parties, the presidency, Congress, public opinion and federalism in shaping the quest for equality.
1 credit.
Fall 2014. Valelly.

## POLS 047. Democracy, Autocracy, and

 Regime ChangeWhy do some dictatorships fall, while others survive? Why are some democracies successful and vibrant, while other democracies struggle to survive? This class will introduce students to the study of political regimes and the core concepts of democracy, autocracy, and the politics and processes of regime change. We will explore the ideal types of democracy and dictatorship, and learn about the many factors that contribute to regime stability, and why some regimes become so unstable that they can be swept away. Finally, we will examine various types of regime changes,
from the early waves of democratization to the recent events of the Arab Spring.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.
POLS 048. The Politics of Population
The role of population and demographic trends in local, national, and global politics will be examined. Topics include the relationship between population and development, causes of fertility decline, the impact and ethics of global and national family planning programs, and contemporary issues such as population aging and the AIDS pandemic.
Eligible for ENVS or PPOL credit.
1 credit.
Not offered 2014-2015

## POLS 049. The U.S. Presidency

The presidency is widely considered an enormously powerful office, but political scientists have instead been struck by how difficult and relatively impotent the office actually is. The course explores this contradiction and clarifies exactly how, why, and when presidents have been influential. Other topics may include whether and how presidents control the presidency and the executive branch, veto bargaining with and influence on Congress, presidential influence on the macroeconomy, presidential influence on the Supreme Court and the federal judiciary, the politics of executive orders, presidential acquisition of the war power, and the development of the national security state and its implications for political democracy.
1 credit.
Not offered 2013-2014.

## POLS 050. The Politics of India and

 PakistanThis course explores the origins, historical trajectories and contemporary political and social dynamics of India and Pakistan. We will discuss Partition in 1947 and the making of the two countries, as well as evolving ideas of citizenship and national belonging in the two countries. We will then investigate the transformations of Indian democracy and the rise and fall of dictatorship in Pakistan. We will examine issues of contemporary relevance in the two countries, such as the role of religion and ethnicity in national politics and public life.
1 credit.
Fall 2014. Naseemullah

## POLS 055. China and the World

Examines the rise of China in the late 20th and early 21st centuries. Topics include China's reform and development strategy, the social and political consequences of reform, the prospects for regime liberalization and democratization, and
patterns of governance. The course will also examine patterns of political resistance and
China's changing role in regional and global affairs.
Eligible for ASIA or PPOL credit.
1 credit.
Not offered 2014-2015.
POLS 056. Patterns of Asian Development
Patterns of political, social, and economic development in Asia will be traced, with special focus on China, Japan, North and South Korea, Taiwan, Vietnam, and India. Topics include the role of authoritarianism and democracy in the development processes, the legacies of colonialism and revolution and their influences on contemporary politics, sources of state strength or weakness, nationalism and ethnic conflict, gender and politics, and patterns of political resistance. Eligible for ASIA or PPOL credit. 1 credit.
Not offered 2014-2015.

## POLS 057. Latin American Politics

A comparative study of the political economy of Mexico, Chile, Guatemala, Nicaragua, Colombia, and Cuba. Topics include the tensions between representative democracy, popular democracy, and market economies; the conditions for democracy and authoritarianism; the sources and impact of revolution; the political impact of neo-liberal economic policies and the economic impact of state intervention; and the role of the United States in the region.
Eligible for LASC credit.
1 credit.
Spring 2015. Sharpe.
POLS 058. Contemporary Chinese Politics Just how strong is China? Is it on the path to great power status? This course considers those questions by examining the rise of China in recent decades, along with the political, economic and social backdrop to this historic development. Topics will include China’s political and economic development, urban and rural unrest, regionalism and nationalism, music and the arts as forms of political expression, environmental politics, law, justice, and human rights, and the role of the military in Chinese politics. Literature, music, online media and video chat with experts will supplement traditional written materials. 1 credit.
Not offered 2014-2015.

## POLS 061. American Foreign Policy

This course analyzes the formation and conduct of foreign policy in the United States. The course combines three elements: a study of the history of American foreign relations since 1865; an analysis of the causes of American foreign policy such as
the international system, public opinion, and the media; and a discussion of the major policy issues in contemporary U.S. foreign policy, including terrorism, civil wars, and economic policy.
Prerequisite: POLS 004 or the equivalent.
1 credit.
Not offered 2014-2015.

## POLS 063. Who's the Boss? Identity,

 Ideology, and PowerWhy do we obey? How do we learn the rules that govern our daily lives? This course explores efforts by modern states to regulate social and political behavior through the inculcation of national identity and ideology, and the ways in which ordinary citizens interpret, misinterpret, negotiate, ignore, internalize, and resist those efforts. The course focuses on non-coercive, nonviolent forms of power, and pays special attention to the ways in which the application of state power facilitates both the domination and emancipation of ordinary members of society.
1 credit.
Not offered 2014-2015.
POLS 064. American-East Asian Relations
This course examines international relations across the Pacific and regional affairs within East Asia (including China, Japan, North and South Korea, Taiwan, Vietnam and the United States). Topics include the impact of Sept. 11 and its aftermath on regional and cross-Pacific relationships, the significance of growing Chinese power, tensions on the Korean peninsula and between China and Taiwan, and the impact of globalization on crossPacific interactions.
Eligible for AISA credit.
1 credit.
Not offered 2014-2015.
POLS 065. Chinese Foreign Policy
How does China view the world, and its place in the world? How do issues of regional and global concern look from the vantage point of Beijing, and how do they shape Chinese views and policies? As China rises in global influence and strength, how will it exercise its newfound power? The course will focus on these questions, as well as a number of contemporary issues in Chinese foreign policy, including U.S.-China relations, the China-Taiwan conflict, China's foreign economic policy, and its evolving defense posture and capabilities.
Eligible for ASIA credit. 1 credit.
Not offered 2014-2015.

## POLS 067. Great Power Rivalry in the 21st

## Century

Since the end of the great rivalry that marked the bipolar Cold War, commentators have debated whether we live in a unipolar or multipolar world. Celebrations, condemnations, as well as obituaries of U.S. hegemony have repeatedly been written. At the same time, nuclear weapons and the economic interdependence have radically reduced the prospects for war between great powers. Does the U.S.A. stand as the sole great power? Is the European Union simply an enormous market with a soft spot for multilateralism, or does the worldviews it puts forward and the international relations it fosters rival the U.S. way? To what extent does the Chinese agenda at multilateral institutions conflict with that of the U.S.A.'s and the E.U.'s? In answering these questions and others, some of the issues that the course addresses are: changing meanings of "great power" and "rivalry"; historical overview of rivalry; trade disputes between the U.S.A., E.U., and China at the World Trade Organization; relations between these three powers at other international institutions, particularly the United Nations and the International Monetary Fund; foreign aid policies of the U.S.A., the E.U., and China; the implications of the rise of Brazil, Russia, and India for world politics.
Prerequisite: POLS 004.
1 credit.
Spring 2015. Kaya.

## POLS 069. Globalization: Politics,

 Economics, Culture and the Environment This course examines globalization along its diverse but inter-related dimensions, including economic, cultural, and political globalization. Topics include: historical overview of globalization; economic globalization and its governance with a focus on the major international organizations involved in the governance of international trade and financial flows, the World Trade Organization, the World Bank, and the International Monetary Fund; global inequality and poverty; cultural globalization; political globalization and the state; environmental globalization; regional organizations, particularly the EU; and prospects for global democracy. The course will also examine topical issues, such as the recent financial crisis.1 credit.
Not offered 2014-2015.

## POLS 070. Political Psychology

Examines the psychological dimensions of politics. Topics include: the role of perception and cognition in different political contexts, from crisis management to routine political decision-making; the dynamic relationship between leaders and their followers, including the impact of charismatic leaders and the psychology of group dynamics; the
impact of political beliefs and values on political behavior, and the role of ideology in the mobilization of revolutionary movements; the formation of group identity, and the forces that provoke the breakdown of cooperation and the eruption of violence between groups. Examples used to illustrate these issues will be drawn from a wide range of locations around the world and a variety of historical eras.
1 credit.
Not offered 2014-2015.

## POLS 070B. Politics of Punishment

The question of why the United States has become a vastly more punitive society-some 2.3 million Americans are held in jails and prisons throughout this country, at last count-is the subject of this upper-level division seminar. The aim of the seminar is to provide both a critical and in-depth exploration of the interplay among American electoral politics, public concerns regarding crime, and criminal justice policy. Among the central questions we will examine are: How is it that so many Americans are either locked up behind bars or under the supervision of the criminal justice system? And where did the idea of using "jails" and "prisons" as instruments of social and crime control come from? What explains the racial and class differences in criminal behavior and incarceration rates? What does it mean to be poor, a person of color-and in "jail" or "prison?" How and why does criminal justice policy in this country have its roots in both the media culture and political campaigns? And how might "politics" underpin what is known as "felon disenfranchisement" or "prison-based gerrymandering?" What are the implications of such political practices for broader questions of racial, economic, and social justice? And importantly, what are the prospects for reform of America's incarceration complex?
Eligible for BLST or PPOL credit.
1.5 credit. Enrollment only by permission of the instructor.
Not offered 2014-2015.

## POLS 071. Applied Spatial Analysis with

GIS: Special Topics
This applied GIS course covers advanced topics in spatial analysis and project development. The class will complete a service project for a local nonprofit and students will pursue applied individual research on subjects of their choosing. Advanced GIS topics will include geocoding, spatial interpolation, network analysis, and model development and automation.
Eligible for ENVS credit.
1 credit.
Not offered 2014-2015.

## POLS 072. Constitutional Law: Special Topics

Students will explore in depth several recent issues and controversies, most likely drawn from First-, Fourth-, Fifth-, Sixth-, and/or 14th-Amendment jurisprudence. Attention will also be given to theories of interpretation. Designed for students who want to deepen their work in constitutional law.
Prerequisites: POLS 024 and permission of the instructor.
1 credit.
Not offered 2014-2015.
POLS 073. Comparative Politics: Special Topics: Comparative Capitalism
A large proportion of all political conflict concerns the relationship between states and economies through regulation, management, and provision of social services. This course explores comparative political economy, or the study of different ways these questions have been resolved across the world, with varying degrees of success and stability. It complements courses such as International Political Economy, regional Comparative Politics courses, American Politics, and Public Policy. It covers topics such as the development and crisis of welfare states, the organization of business-government relations, the impact of globalization on domestic politics and economic management, and the multiple successive models of capitalism within advanced industrial societies.

## 1 credit.

Not offered 2014-2015.

## POLS 075. International Politics: Special

 Topics: The Causes of WarThe causes of war is arguably one of the most important issues in the field of international politics. In each week of the course, a candidate theory will be examined, and a specific war will be analyzed in depth to test the validity of the theory. Topics will include revolution and war, capitalism and war, misperception and war, and resource scarcity and war. The course will conclude with a discussion of the future of war, particularly the likelihood of conflict among the great powers. Prerequisite: POLS 004 or equivalent.
Eligible for PEAC credit.
1 credit.
Spring 2015. Tierney.

## POLS 076. Violence and Development in

 South AsiaThis course explores the themes of nationalist development and political violence in South Asia. In the years after independence, India, Pakistan and Sri Lanka embarked on state-driven industrialization, producing high rates of growth as well as political conflicts arising from exclusion
and inequality. The 1980s and 1990s saw both market reforms in these countries and increasingly violent conflict against the state, patterns that have continued to this day. This course examines whether there is indeed any theoretical link between development and violence through the study of economic development and insurgent violence in India, Parkistan and Sri Lanka, as well as the secondary cases of Bangladesh and Nepal. 1 credit.
Spring 2015. Naseemullah.

## POLS 077. Practical Wisdom

What is practical wisdom (what Aristotle called "phronesis")? Is it necessary to enable people to flourish in their friendships, loving relations, education, work, community activities, and political life? What is the relevance of this Aristotelian concept for the choices people make in everyday life, and how does it contrast with contemporary Kantian, utilitarian, and emotivist theories of moral judgment and decision making?
What does psychology tell us about the experience and character development necessary for practical wisdom and moral reasoning? And how do contemporary economic and political factors influence the development of practical wisdom? Prerequisites: Some background in philosophy or political theory.
Enrollment is limited and by permission of the instructor. Applications available from department office.
1 credit.
Spring 2015. Sharpe.

## POLS 078. Iran, Islam, and the Last Great

 RevolutionDescribed as the site of the last great revolution of the Modern Era, this course explores Iran's recent political history as the expression of an "authentic" modernity, conceived by Iranians and articulated in local terms, both Islamic and pre-Islamic. Rather than treat the postrevolutionary politics of the Islamic Republic as a break with modernity or "a force spinning Iran back thirteen centuries in time," the course examines continuities between the policies of the current regime and more than 200 years of effort in Iran, stretching back to the Qajar and Pahlavi monarchies, to reconcile European (and later, North American) modernity to Iranian culture and history. Special attention is given to ideology and political Islam, nationalism, the educational system, and the concepts of postIslamism and social non-movements, particularly since the Green Movement and Arab Spring. The course places Iranian encounters with modernity into comparative perspective by looking at similar processes taking place in countries like Egypt and Turkey, and in Latin America.
1 credit.
Spring 2015. Malekzadeh.

POLS 079B. Comparative Politics: Special Topic Revolutions
Inspired by the recent events of the Arab Spring, this course is a theoretical and historical examination of revolutions. We will study the different definition, causes, and effects of revolutions, as well as the distinction between revolutions and other forms of social movements. Students will be challenged to explain how we know when a revolution is complete-what happens after the storming of the palace?-as well as the reasons why certain revolutions fail while others succeed. Although the course considers a broad scope of political uprisings, ranging from the "colored revolutions" of the post-Communist to the Occupy Wall Street movement, special attention will be paid to the French, Russian, Mexican, Chinese, Cuban, and Iranian revolutions.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015
POLS 082. Schooled to Obey, Learning to Protest: The Politics of Schooling in Latin America and the Middle East
This course looks at the politics of schooling in the late-developing, occasionally post-revolutionary countries of Latin American and the Middle East, supplemented by casework on China and Russia. The focus will be on the emancipatory and disciplinary effects of schooling, produced by modernizing states as they pursue developmental dreams and nationalist imaginings. Schooled to obey and to produce, many students and their parents learned how to challenge the demands and expectations of the educative state in order to appropriate the public good of schooling for private use.
1 credit.
Fall 2014. Malekzadeh.

## POLS 087. Water Policies, Water Issues:

 China and the U.S.
## (Cross-listed as CHIN 087)

Access to fresh water is an acute issue for the 21st century, and yet civilizations have designed a wide range of inventive projects for accessing and controlling water supplies over the centuries. Fresh water resource allocation generates issues between upstream and downstream users, between a country and its neighbors, between urban and rural residents, and between states and regions. This course examines a range of fresh water issues, comparing China and the U.S. Topics include dams and large-scale water projects (e.g., rerouting rivers); water pollution; groundwater depletion; industrial water use (e.g., for hydrofracking); impact of agricultural practices; urban storm water management; wetlands conservation; desertification; desalination. In the U.S. context especially, issues of water rights regimes and property rights, privatization, and
commodification of water will receive attention. Which claims upon fresh water resources come first? What role do governments, transnational organizations, corporations, NGOs, and grassroots citizens' movements play in these water decisions? Guest lectures will emphasize science and engineering perspectives on water management. Chinese language ability desirable but not required.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.
POLS 087A. Policies and Issues of Fresh Water Resources in China
(Cross-listed as CHIN 087A)
This is an attachment to POLS 087. Students who complete the course have the option of adding a 0.5 credit field work component. Field work will be conducted in China under the supervision of Professors Nackenoff and Zuo, and will include specific Chinese language training in the vocabulary used in the field of environmental studies.
Eligible for ASIA credit.
0.5 credit.

Not offered 2014-2015.
POLS 088. Governance and Environmental Issues in China
(Cross-listed as CHIN 088)
This course examines China's environmental challenges and the range of governmental policies and institutions that have an impact on those challenges. Topics include air pollution, food supply, energy consumption, urbanization, and environmental activism. Students will be guided through an examination of China's historical approach to environmental issues, its contemporary pattern of environmental governance, and its engagement with global institutions and environmental diplomacy. Special attention will be given to the transformation of Beijing and other major cities, to China's policymaking process, and the role of environmental NGOS and global institutions in shaping domestic policy outcomes. Literary works (Chinese novels and short stories) and feature films/documentary films reflecting environmental issues will be combined with readings from social science and environmental science to provide an interdisciplinary perspective. All required readings/screenings are in English or English translation/subtitled. Chinese language ability is preferred, but not required.
1 credit.
Not offered 2014-2015.
POLS 088A. Governance and Environmental Issues in China (Cross-listed as CHIN 088A)

This is an attachment to POLS 088. Students who complete the course have the option of adding a 0.5 credit field work component. Field work will be conducted in China under the supervision of Professors Kong and White, and will include specific Chinese language training in the vocabulary used in the field of environmental studies.
0.5 credit.

Not offered 2014-2015.

## POLS 090. Directed Readings in Political

 ScienceAvailable on an individual or group basis, subject to the approval of the instructor.
1 credit.
Staff.
POLS 092. Senior Comprehensives
Open only to senior majors completing the comprehensive requirement.
0.5 credit.

Spring 2015. Tierney

## POLS 095. Thesis

A 1-credit thesis, normally written in the fall of the senior year. Students need the permission of the department chair and a supervising instructor. 1 credit.

## Seminars

The following seminars prepare for examination for a degree with honors:

## POLS 100. Ancient Political Theory: Plato

 to HobbesThis course will consider the development of political thought in the ancient and medieval periods and the emergence of a distinctively modern political outlook. Special attention will be paid to the differences between the way the ancients and the moderns thought about ethics, reason, wisdom, politics, democracy, law, power, justice, the individual, and the community. Key philosophers include Plato, Aristotle, and Hobbes. 2 credits.

## Fall 2014. Sharpe.

## POLS 101. Modern Political Theory

In this seminar, we will study the construction of the modern liberal state and capitalism through the works of Hobbes, Locke, and Rousseau, and then, in more detail, we will examine the greatest critics of the modern age-Marx, Nietzsche, Jung, and Foucault. Marx demands that we take history and class conflict seriously in political theory.
Nietzsche connects the evolution of human instinct to the politics of good and evil for the sake of political transformation. Jung establishes psychology and mythology as foundations for politics, and Foucault uses all three of these critics
to question the modern subject and the disciplines of power and knowledge that construct selves and politics in a postmodern age.
2 credits.
Spring 2015. Berger.
POLS 102. Comparative Politics: China Examines contemporary Chinese politics against the backdrop of its revolutionary past. Topics include pathways of political and economic development, the legacy of the Maoist era, the origins and evolution of the modernization and reform program implemented over the last several decades, and the dynamics of political, economic and social change. Also examine issues of political unrest and instability, demographic change and migration, religion and nationalism, institutions and governance, law and human rights, and civilmilitary relations.
2 credits.
Not offered 2014-2015.
POLS 103. Power, Identity and Culture Power, external and objective, is also internal and subjective, invisibly working to shape understandings of who we are even as it performs the visible rituals of regulation typically associated with states and governments. This course takes as its central thesis that immaterial and invisible forms of power are power's most effective form as well as the most difficult for political science to measure and understand. Alternating between case and theory, and looking at power both naked and sublime, we will examine the struggle by the state and other elite actors to shape subjectivities through culture and identity formation in order to secure quiescence and rule. Close attention will be paid to how socializing agents, including schools and the educational system, media and film, and families and local communities, shape and reshape formal efforts to have ordinary citizens internalize what Stuart Hall describes as "the horizon of the taken-for-granted," those ruling ideas and beliefs that consist "of things that go without saying because, being axiomatic, they come without saying; things that, being presumptively shared, are not normally the subject of explication or argument." This course seeks to understand how such efforts succeed, falter, and change as they face the negotiations of the ordinary and the less powerful. Authors include Antonio Gramsci, Steven Lukes, James C. Scott, Clifford Geertz, Michel Foucault, Joel Migdal, Stuart Hall, and Robert Dahl.
2 credits.
Spring 2015. Malekzadeh.

## POLS 104. American Political System

An intensive survey of the best political science literature on national institutions, democratic processes, citizens' attitudes and their attention to and knowledge of politics, the behavior of voters
and politicians, federalism, income inequality's political origins, and the questions that political scientists have asked and currently ask about these topics. Previous background in American politics and history is essential. The seminar mixes the latest research with enduring contributions in order to capture the vitality and excitement of studying American politics and its constituent elements.
Prerequisite: POLS 002 or an intermediate American politics course
2 credits.
Spring 2015. Valelly.

## POLS 105. Constitutional Law in the

## American Polity

This seminar examines the Supreme Court in American political life, with emphasis on civil rights, civil liberties, and constitutional development. The seminar explores the court's role in political agenda setting in arenas including economic policy, property rights, separation of powers, federalism, presidential powers and war powers, and interpreting the equal protection and due-process clauses as they bear on race and gender equality. Judicial review, judicial activism and restraint, and theories of constitutional interpretation will be included.
2 credits.
Spring 2015. Nackenoff.

## POLS 106. The Urban Underclass and Public Policy

This seminar is a critical examination of some of the most pressing (and contentious) issues surrounding the nation's inner cities today and the urban underclass: the nature, origins, and persistence of ghetto poverty; racial residential segregation and affordable public housing; social organization, civic life, and political participation; crime and incarceration rates; family structure; adolescent street culture and its impact on urban schooling and social mobility; and labor force participation and dislocation. We conclude by examining how these issues impact distressed urban communities, such as the neighboring city of Chester.
Eligible for BLST or PPOL credit. 2 credits.
Not offered 2014-2015.
POLS 108. Comparative Politics: East Asia This course examines the politics of China, Japan, the two Koreas, Vietnam and Taiwan. It compares pathways to development, the role of authoritarianism and democracy in the development process, the conditions that promote or impede transitions to democracy, and the impact of regional and global forces on domestic politics and regime legitimacy. It also explores the ideas and cultural patterns that influence society and politics, and the role of social change and
protest in regime transformation.
Eligible for ASIA or PPOL credit.
2 credits.
Not offered 2014-2015.

## POLS 109. Comparative Politics: Latin

 AmericaA comparative study of the political economy of Mexico, Chile, Guatemala, Nicaragua, Colombia, El Salvador, and Cuba. Topics include the tensions between representative democracy, popular democracy, and market economies; the conditions for democracy and authoritarianism; the sources and impact of revolution; the political impact of neo-liberal economic policies and the economic impact of state intervention; and the role of the United States in the region.
Eligible for LASC credit.
2 credits.
Spring 2015. Sharpe.

## POLS 112. Democratic Theory and Civic

 Engagement in AmericaThis course begins with the questions: What is democracy, and what does it require? Widespread political participation? Economic equality? Good education? Civic virtue? If any of these conditions or characteristics are necessary, how might they be promoted? In addition to theoretical questions, we will investigate one of the hottest debates in contemporary political science: whether political participation, social connectedness, and general cooperation have declined in the United States over the past half-century. If so, why? What might be done? We will consider the potential civic impact of economic and social marginalization in inner-city areas, the role of education in promoting civic engagement, the problem of civic and political disengagement among America's youth, and the potential for the Internet and other communications technology to resuscitate democratic engagement among the citizenry. We will close by considering some lessons from successful community activists, politicians, and political mobilizers.
2 credits.
Fall 2014. Berger.

## POLS 113. International Politics: War,

 Peace, and SecurityThis seminar will investigate in depth the issues of conflict, security, and the use of force in contemporary international politics. The course will begin by considering the changing meaning of "security" and by analyzing the major theoretical approaches including realism, liberalism, and constructivism. The course will then tackle some of the great puzzles of international security including the clash of civilizations hypothesis, the role of nuclear weapons, civil wars and intervention, terrorism, and human rights.

## Political Science

2 credits.
Fall 2014. Tierney.
POLS 116. International Political Economy
The course studies the main historical and contemporary approaches in international political economy, and focuses on the primary
contemporary issues in political-economic
relations among states as well as between states and non-state actors. Topics include: domesticinternational level interaction in the politics of international economic relations, economic globalization, the international financial and monetary systems, the international trading system, development and aid, economic crises, multinational corporations, interlinkages between economic and security relations, multilateral platforms to address international political economic issues, including relatively new forums such as the G20.
Prerequisites: POLS 004 and ECON 001
(Introduction to Economics).
2 credits.
Fall 2014. Kaya.
POLS 180. Thesis
With the permission of the department, honors candidates may write a thesis for double course credit.
2 credits.

FRANK H. DURGIN, Professor
ALLEN M. SCHNEIDER, Professor
BARRY SCHWARTZ, Professor
ANDREW WARD, Professor and fall semester Chair
JANE E. GILLHAM, Associate Professor and spring semester Chair ${ }^{1}$
DANIEL J. GRODNER, Associate Professor ${ }^{3}$
STELLA CHRISTIE, Assistant Professor
CATHERINE J. NORRIS, Assistant Professor
MICHELE REIMER, Assistant Professor (part time)
JODIE A. BAIRD, Visiting Assistant Professor (part time)
ELIZABETH D. KRAUSE, Visiting Assistant Professor (part time)
LES SIKOS, Visiting Assistant Professor (part time) and Post-Doctoral Research Fellow
KATHRYN TIMMONS, Administrative Coordinator
ABIGAIL ROBINSON, Research Coordinator and Academic Assistant
${ }^{1}$ Absent on leave, fall 2014.
${ }^{3}$ Absent on leave, 2014-2015.

Psychology is concerned with the systematic study of human behavior and experience. Psychologists use diverse approaches to understand human relationships, mental and emotional life, and decision-making, as well as the relationships between language, perception, the mind, and the brain. Topics also include the influence of other people on the individual and the origins and treatment of mental illness.

## The Academic Program

The courses and seminars of the department are designed to provide a sound understanding of the principles and methods of psychology. Students learn the nature of psychological inquiry and psychological approaches to various problems encountered in the humanities, the social sciences, and the life sciences.
The Psychology Department offers a course major and minor, honors major and minor, and regularized special majors in neuroscience and in psychology and education. Students may, with approval, develop other individualized special majors, such as psychology and economics.

## Prerequisites

The most common way to fulfill the prerequisite for further work in psychology is to take PSYC 001 Introduction to Psychology. A second entry point is a psychology first-year seminar: PSYC 006 First-Year Seminar: Happiness or PSYC 007 First-Year Seminar: Early Social Cognition.

## Advanced Placement

Alternatively, a student may meet the prerequisite for psychology courses with a grade of AP 5 on the psychology Advanced Placement test or a grade of 6 or 7 for psychology in the International Baccalaureate Program, but this practice is not encouraged. In either case, an entering student should seek guidance from the department chair or academic assistant about selection of a first psychology course. Students electing the AP or IB
placement option are not permitted to take a core course (numbered in the 30s) in their first semester. (Swarthmore credit is not granted for AP or IB work in psychology.)

## Course Major

A course major must include at least 8 credits in psychology. One additional credit is required in statistics as a prerequisite for PSYC 025.
Normally, one credit of the 8 credits in psychology may be accepted from a semester abroad. The minimum requirement excludes courses crosslisted in psychology that are taught solely by members of other departments, such as EDUC 021/PSYC 021, EDUC 023/PSYC 023 and EDUC 026/PSYC 026. COGS 001 Introduction to Cognitive Science may be counted in the minimum courses required for the major when taught by a member of the Psychology Department.
A typical sequence of courses toward a major begins with PSYC 001 Introduction to Psychology (or equivalent), followed by a core course (those with numbers in the 30s) or PSYC 025 Research Design and Analysis.

## Requirements

1. PSYC 001 Introduction to Psychology (or equivalent) is normally a prerequisite for all courses in psychology (see the note about prerequisites above).
2. PSYC 025 Research Design and Analysis is a requirement for the major. Note that STAT 011 Statistical Methods (or equivalent, e.g., ECON 031 ) is a prerequisite for PSYC 025, or may be taken concurrently.
3. At least four core courses in psychology are required (those with numbers in the 30s): 030 Physiological Psychology; 031A Social, Cognitive and Affective Neuroscience; 032 Perception; 033 Cognitive Psychology; 034 Psychology of Language; 035 Social Psychology; 036 Thinking,

Judgment and Decision Making; 038 Clinical Psychology; 039 Developmental Psychology.
4. Finally, to graduate with a major in psychology, students must also complete a culminating research experience, described below.

## Comprehensive Requirement: Culminating

## Research Experience

Students in the Course Program must satisfy the College's comprehensive requirement in their majors. In psychology, this can be done in one of the following four ways:

1. Complete a research practicum in psychology in the senior year: PSYC 102 Research Practicum in Cognition and Perception; PSYC 103 Research Practicum in Behavioral Neuropharmacology; PSYC 104 Research Practicum in Language and Mind; PSYC 105 Research Practicum in Psychology and Neuroscience: Social Imitation; PSYC 106 Research Practicum in Cognitive Development; 108 Research Practicum in SchoolBased Interventions; 109 Research Practicum in Clinical Psychology. Students may enroll in these practica to conduct original empirical research for one-half (an option for some practica) or one credit and may take these courses before the senior year without meeting the comprehensive requirement. When taking these courses to meet the comprehensive requirement, the student will normally enroll for one credit and participate in the Senior Research Poster Session.
2. Complete PSYC 098 Senior Research Project. With the approval of the faculty, students may select a topic of their choice in psychology and write a substantial paper on the topic based on library research-and possibly some original empirical research. The paper may constitute a significant expansion and extension of a paper or papers written by the student previously for psychology courses, or it may address a topic on which the student has not written before. Students are encouraged, but not required, to select topics that span more than one content area in psychology. In addition to submitting their written reports, students participate in the Senior Research Poster Session. Students receive either one-half or one course credit for satisfactory work on the Senior Research Project, and a letter grade is assigned. Students normally enroll in the course in the fall semester.
3. Complete PSYC 096-097 Senior Thesis. Admission to the senior thesis program is by application only. Enrollment in 2 credits of senior thesis, one each semester of the senior year, is required. We require that students wishing to prepare a senior thesis have averages at the high B level in psychology and overall. Application to the senior thesis program is usually made by the end of the junior year. The list of faculty research interests on the department's website will help students identify the appropriate faculty member to consult when developing thesis plans.
4. Complete a clinical practicum (PSYC 090) in the spring semester of the senior year. Extensive planning in advance is necessary. See the PSYC 090 description.

## Acceptance Criteria

To be accepted as a course major, students must have successfully completed two courses in psychology and be in good standing at the College.

## Course Minor

A course minor in psychology requires a minimum of 5 credits taken with psychology faculty at Swarthmore. There is no comprehensive requirement.

## Requirements

PSYC 001 Introduction to Psychology (or equivalent) is normally a prerequisite for all courses in Psychology (see the note about prerequisites above).
A minimum of two core courses in psychology (those with numbers in the 30s) is required: 030 Physiological Psychology; 031A Social, Cognitive and Affective Neuroscience; 032 Perception; 033 Cognitive Psychology; 034 Psychology of Language; 035 Social Psychology; 036 Thinking, Judgment and Decision Making; 038 Clinical Psychology; 039 Developmental Psychology.

## Acceptance Criteria

To be accepted as a course minor, students must have successfully completed one course in psychology and be in good standing at the College.

## Honors Major

An honors major in psychology requires completing all the requirements for the course major while incorporating three honors preparations in psychology, of which one is a 2credit senior honors thesis. The other two honors preparations in psychology are composed of two core courses (a course numbered in the 30s) along with their corresponding one-credit seminars (numbered in the 130s).
The Psychology Department currently offers examination in honors in the following fields:

Behavioral Neuroscience
Clinical Psychology
Cognitive Psychology/Perception
Developmental Psychology
Psycholinguistics
Social, Cognitive and Affective Neuroscience
Social Psychology
Thinking, Judgment and Decision Making

## Requirements

PSYC 001 Introduction to Psychology (or equivalent) is normally a prerequisite for all
courses in psychology (see the note about prerequisites above).
PSYC 025 Research Design and Analysis is required of honors majors, as it is for course majors. Note that STAT 011 Statistical Methods (or equivalent, e.g., ECON 031) is a prerequisite for PSYC 025 (or may be taken concurrently).
Two seminar-based honors preparations, as described above, must be completed, each consisting of a core course and its corresponding seminar.
In all, a minimum of four core courses in psychology (those with numbers in the 30s) must be completed: 030 Behavioral Neuroscience; 031A Social, Cognitive and Affective Neuroscience; 032 Perception; 033 Cognitive Psychology; 034 Psychology of Language; 035 Social Psychology; 036 Thinking, Judgment and Decision Making; 038 Clinical Psychology; 039 Developmental Psychology.
A two-credit honors thesis (PSYC 180), spread over both semesters of the senior year, is the third honors preparation and fulfills the comprehensive requirement in psychology.

## The Honors Examination for Majors

In psychology, the usual form of evaluation is a three-hour written examination prepared by the external examiner and administered during the honors examination period in the senior year. This is followed, during the subsequent examiners' weekend, by an oral examination with the examiner for each of a student's preparations. An honors thesis stands in place of one written examination.

## Acceptance Criteria

Approval of an application to participate in the Honors Program as a major depends upon successfully completing two psychology courses at Swarthmore, normally PSYC 001, Introduction to Psychology, or a psychology first-year seminar, and one core course. Admission to the Honors Program usually takes place in the spring semester of the sophomore year, but students may apply for honors even in the junior year. To be accepted, students must have high B averages in psychology and overall. Moreover, to continue in honors, students must have attained a B+ average in psychology at the end of the junior year.

## Honors Minor

Completing an honors minor in psychology requires fulfilling the requirements for the course minor while incorporating a single honors preparation in psychology, composed of a core course (a course numbered in the 30s) and its corresponding one-credit seminar (numbered in the 130s). A complete list of available preparations is given above in the section on honor majors.

## Requirements

A minimum of five credits taken with psychology faculty at Swarthmore, including the honors preparation, are required for the honors minor.
PSYC 001 Introduction to Psychology (or equivalent) is normally a prerequisite for all courses in psychology (see the note about prerequisites above).
Two of the five credits must be core courses in psychology (those with numbers in the 30s): 030 Behavioral Neuroscience; 031 Cognitive
Neuroscience; 031A Social, Cognitive and Affective Neuroscience; 032 Perception; 033 Cognitive Psychology; 034 Psychology of Language; 035 Social Psychology; 036 Thinking, Judgment and Decision Making; 038 Clinical Psychology; 039 Developmental Psychology.
The honors preparation is completed by taking the seminar corresponding to one of the
aforementioned core courses. PSYC 025 Research Design and Analysis is strongly recommended for honors minors.
The Honors Examination for Minors
The usual form of evaluation is a three-hour written examination prepared by the external examiner and administered during the honors examination period in the senior year. This is followed, during the subsequent examiners' weekend, by an oral examination with the examiner.

## Acceptance Criteria

Approval of an application to participate in the Honors Program as a minor depends upon successfully completing two psychology courses at Swarthmore, normally PSYC 001, Introduction to Psychology, or a psychology first-year seminar, and one core course. Admission to the Honors Program usually takes place in the spring semester of the sophomore year, but students may apply for honors even in the junior year. To be accepted, students must have high B averages in psychology and overall. Moreover, to continue in honors, students must have attained a B+ average in psychology at the end of the junior year.

## Special Major in Neuroscience

The psychology and biology departments have defined a regularized special major in neuroscience that combines work in the two departments in a way that allows students flexibility in choosing the focus of their Neuroscience majors. Approval and advising for this special major are done through both departments. Details about the course and honors special majors can be found online at www.swarthmore.edu/academics/biology/neurosci ence.xml. Students interested in developing a special major in Neuroscience are encouraged to consult faculty in both departments.

## Special Major in Psychology and Educational Studies

A student wishing to undertake a special major in psychology and educational studies will propose and justify an integrated program that includes $10-$ 12 credits in the two disciplines, as described below.

## Requirements

The special major will include 5 credits in courses or seminars taught by members of the department of psychology, including at least 3 core areas (courses numbered in the 30s) and PSYC 025 Research Design and Analysis. It will include at least 5 credits taught by members of the Department of Educational Studies. One of these courses must be EDUC/PSYC 021 Educational Psychology. Practice Teaching (EDUC 016) and the Curriculum and Methods Seminar (EDUC 017) may not be included in the program.

## Culminating Exercise/Comprehensive

 ExaminationEither a two-semester, two-credit interdisciplinary senior thesis, a research practicum ( 0.5 or 1 credit), a practicum in clinical psychology (PSYC 090, 1 credit) or an integrated comprehensive project (PSYC 098 or EDUC 098, 0.5 credit) suitable to the special major serves to satisfy the comprehensive requirement. Theses and comprehensive projects are supervised by one member of each department. Students wishing to prepare a senior thesis must have averages at the high B level in psychology, educational studies, and overall. Application to the senior thesis program is usually made by the end of the junior year. Because special majors may not undertake work on a thesis in a semester in which they are student teaching, such students must be sure to apply early and to begin thesis work as second semester juniors.

## Honors special major in psychology and education

The requirements for honors require that four honors preparations be included in the special major, including the senior honors thesis. For special majors involving educational studies, theses are supervised by both departments.
Normally, the remaining three honors preparations consist of two two-credit seminars in educational studies and one preparation in psychology composed of a core course (a course numbered in the 30s) and its corresponding one-credit seminar (numbered in the 130s), but a program could be proposed involving two preparations in psychology and one in educational studies.

## Acceptance Criteria

To be accepted as a special major in psychology and educational studies, a student must have successfully completed two courses in psychology, EDUC 014 Introduction to Education, and be in good standing at the College.

## Other Special Majors Involving Psychology

Other individualized special majors including psychology may be designed. A special major in cognitive science, which may involve psychology, is administered through the program coordinator of cognitive science. A special major in psychology and economics is also an option.

## Transfer Credit

Transfer credit is handled on an individual basis. Whenever possible, prior approval is recommended.

## Off-Campus Study

The Psychology Department recognizes that international study may have an important place in the educational programs of students, and we support those who wish to include such an experience. We usually advise students to complete their time abroad by the middle of the junior year so that it does not interfere with applications for summer research or with the development of thesis proposals and senior research projects proposals. Students may wish to consult with an adviser in the department about their specific plan because of the absence of international standards in psychology. In most cases, we encourage students to emphasize work in areas other than psychology while away. However, the department may permit a student to transfer a single psychology course from a study abroad program to count toward the minimum major requirements, but normally not in fulfillment of a core course requirement nor as a prerequisite for an advanced seminar. Additional work may be considered for transfer beyond the minimum major requirements. Prior completion of introductory psychology or its equivalent is an important component of approval for transfer credit.

## Research and Service-Learning Opportunities

Students are encouraged to get involved with research at any point in their time at Swarthmore, and many seniors also do field placements through the clinical practicum.

## Academic Year Opportunities

There are many opportunities for research with the faculty of the department during the academic year either for academic credit (PSYC 094:
Independent Research, PSYC 102: Research
Practicum in Perception and Cognition, PSYC
103: Research Practicum in Behavioral
Neuropharmacology, PSYC 104: Research
Practicum in Language and Mind, PSYC 105
Research Practicum in Psychology and
Neuroscience: Social Imitation, PSYC 106:
Research Practicum in Cognitive Development,

PSYC 108: Research Practicum in School Based Interventions, PSYC 109: Research Practicum in Clinical Psychology) or as a paid assistant. Students may participate in the design, conduct and analysis of projects at any stage in their program. In the senior year, such experiences, in the form of a thesis (PSYC 096-097 or PSYC 180) or research practicum, may constitute the culminating comprehensive experience. The list of faculty research interests on the department's website will help students identify the appropriate faculty member to consult about developing research plans.
The clinical practicum (PSYC 090) provides field experience for students who are considering careers in clinical psychology, psychiatry, social work, and counseling. Some advanced students undertake practica to gain experience in clinical settings such as a shelter for battered women, a program for children with autism, or a residential treatment facility. Enrollment is often limited to seniors and requires at least a $B$ average in Psychology as well as appropriate course preparation. The clinical practicum is a Community-based Learning course.

## Service-Learning Opportunities

Several psychology courses are designated as Community-Based Learning courses. They are PSYC 090 Practicum in Clinical Psychology; PSYC 108 Research Practicum in School-Based Interventions; and PSYC 109 Research Practicum in Clinical Psychology

## Summer Research Opportunities

Students may apply for summer funding to conduct research in psychology either through the Social Sciences Division or through the Division of Natural Sciences and Engineering, depending on the nature of the research project. Students should seek the sponsorship of a faculty member who is willing to provide guidance in developing and submitting an application. Funding may be obtained to work with faculty members on campus or, in some cases, at another campus or setting. Students planning to prepare a thesis are especially encouraged to consider ways of integrating a summer of research into their thesis work, but all interested students should feel free to explore their options. The list of faculty research interests on the department's website will help students identify the appropriate faculty member to consult.

## Teacher Certification

Students who wish to qualify for certification at the secondary school level should consult faculty in the educational studies department. Psychology majors can complete the requirements for teacher certification in social science, through a program approved by the Commonwealth of Pennsylvania. For further information about the relevant set of
requirements, please refer to the Educational Studies section of the Bulletin.

## Life After Swarthmore

Psychology majors have followed a variety of paths after graduation, including into medicine, law, business, information technology, marketing, counseling, finance, theater, and education, as well as into traditional psychology programs leading to clinical practice and/or academic research in psychology, neuroscience and related fields.

## Courses

## PSYC 001. Introduction to Psychology

An introduction to the basic processes underlying human and animal behavior-studied in experimental, social, and clinical contexts. Analysis centers on the extent to which normal and abnormal behaviors are determined by learning, motivation, neural, cognitive, and social processes.
In addition to the course lectures, students are required to participate in a mini-seminar for several weeks during the semester. Each meeting is 1 hour and 15 minutes, typically during the Monday or Wednesday (1:15-4 p.m.), or Friday (2:15-5 p.m.) class periods. Students will be assigned to a group after classes begin but should keep at least one period open.
Students also act as participants in Psychology Department student and faculty research projects.
PSYC 001 is a prerequisite for further work in the department.
Social sciences.
1 credit.
Each semester. Staff.

## COGS 001. Introduction to Cognitive

 Science(See COGS 001)
COGS 001 is offered in the Cognitive Science Program. It can count toward the minimum required credits in a psychology major when taught by a member of the Psychology
Department.
1 credit.
Fall 2014. Durgin and Sikos.
PSYC 006. First-Year Seminar: Happiness
What is happiness? How important is it to people? How important should it be to people? Do people know what makes them happy? If they do know, are they able to make decisions that promote happiness? This course asks all of these questions and tries to answer at least some of them by examining current psychological research. This course serves as an alternate prerequisite for further work in the department.
Social sciences.

1 credit.
Fall 2014. Schwartz.

## PSYC 007. First-Year Seminar: Early Social Cognition

Humans are helplessly social: we spend much of our lives interacting with others, continuously encoding and processing information about our social world. What are the origins and developmental trajectory of our social cognition? Are we prejudiced from the start? How do we learn us vs. them distinction? When and how do young children come to appreciate the content of others' minds? This course explores the underlying cognitive processes that shape infants' and children's understanding of the social world.
PSYC 007 serves as an alternate prerequisite for further work in the department.
No prerequisite.
Social sciences.
1 credit.
Spring 2015. Christie.

## PSYC 021. Educational Psychology

(See EDUC 021)
Note: The Educational Studies Department offers this course. It does not count toward the minimum required credits for a psychology major or minor. Fall 2014. Renninger.

## PSYC 023. Adolescence

(See EDUC 023)
Note: The Educational Studies Department offers this course. It does not count toward the minimum required credits for a psychology major or minor. Spring 2015. Smulyan.
PSYC 025. Research Design and Analysis How can one answer psychological questions? What counts as evidence for a theory? This course addresses questions about the formulation and evaluation of theories in psychology. The scientific model of psychological hypothesis testing is emphasized, including the critical evaluation of various research designs and methodology, understanding basic data analysis and statistical issues, and the application of those critical thinking skills to social science findings reported in the media.
Students also learn to design and conduct psychology studies, analyze data generated from those studies, and write up their findings in the format of a psychology journal article.
This course is required for the major prior to the student's senior year. Statistics 011 must be taken prior to or concurrently with the course.
Prerequisite: PSYC 001 and STAT 011 or equivalent.
Social sciences.
Writing course.

1 credit.
Fall 2014. Baird, Ward. Spring 2015. Baird, Norris.

## PSYC 026. Special Education: Issues and

 Practice(See EDUC 026)
Note: The Educational Studies Department offers this course. It does not count toward the minimum required credits for a psychology major or minor. Fall 2014. Linn.

## PSYC 029. Practical Wisdom

(Cross-listed as POLS 077)
What is practical wisdom (what Aristotle called "phronesis")? Is it necessary to enable people to flourish in their friendships, loving relations, education, work, community activities, and political life? What is the relevance of this Aristotelian concept for the choices people make in everyday life, and how does it contrast with contemporary Kantian, utilitarian, and emotivist theories of moral judgment and decision making? What does psychology tell us about the experience and character development necessary for practical wisdom and moral reasoning? And how do contemporary economic and political factors influence the development of practical wisdom?
Prerequisites: Some background in psychology, philosophy or political theory.
Enrollment is limited and by permission of the instructors. Applications available from either psychology or political science department office. 1 credit.
Spring 2015. Schwartz and Sharpe.

## PSYC 030. Behavioral Neuroscience

Course previously titled Physiological Psychology A survey of the neural and biochemical bases of behavior with special emphasis on sensory processing, motivation, emotion, learning, and memory. Both experimental analyses and clinical implications are considered.
Prerequisite: PSYC 001.
Social sciences.
Eligible for COGS credit. 1 credit.
Spring 2015. Schneider.

## PSYC 031A. Social, Cognitive and

## Affective Neuroscience

This course focuses on the neural underpinnings of cognitive (memory, attention), social (theory of mind, empathy), and affective (emotion, evaluation) processes, as well as how they interact with and contribute to each other. We consider how such processes are implemented at the neural level, but also how neural mechanisms help give rise to social and emotional phenomena. Many believe that the expansion of the human brain evolved due to the complex demands of dealing
with others - competing or cooperating with them, deceiving or empathizing with them,
understanding or misjudging them. In this course, we review current theories and methods guiding social, cognitive, and affective neuroscience, taking a multi-level approach to understanding the brain in its social context.
Prerequisite: PSYC 001.
Social sciences.
1 credit.
Fall 2014. Norris.

## PSYC 032. Perception

Perception is fundamental to both cognition and action. How does perception work? This course covers a variety of scientific theories of perception including biological analyses of comparative functional anatomy of sensory systems and the informational "ecology" in which they have evolved, as well as functionalist information processing theories including computational, statistical and inferential approaches. An integrated series of laboratories and demonstrations provides students with experience testing theories of perception empirically. Required weekly laboratory.
Prerequisite: PSYC 001 and PSYC 025: Research Design and Analysis or permission of instructor.
Natural sciences and engineering practicum. 1 credit.
Spring 2015. Durgin.

## PSYC 033. Cognitive Psychology

Cognitive psychology is one of the intellectual foundations on which modern psychological science is built. This course has two principal goals. On the one hand, it provides an integrated overview of a variety of subfields of cognitive psychology including perception, attention, memory, language, concepts, imagery, thinking, decision-making, and problem solving. On the other hand, it develops a coherent conceptual framework for understanding how behavioral experiments can illuminate the workings of the human mind.
Prerequisite: PSYC 001.
Social sciences.
Eligible for COGS credit.
1 credit.
Not offered 2014-2015. Staff.

## PSYC 034. Psychology of Language

(Cross-listed as LING 034)
The capacity for language sets the human mind apart from all other minds, both natural and artificial, and so contributes critically to making us who we are. In this course, we ask several fundamental questions about the psychology of language: How do children acquire it so quickly and accurately? How do we understand and
produce it, seemingly without effort? What are its biological underpinnings? What is the relationship between language and thought? How did language evolve? And to what extent is the capacity for language "built in" (genetically) versus "built up" (by experience)?
Prerequisite: PSYC 001 or permission of the instructor.
Social sciences.
1 credit.
Not offered 2014-2015. Grodner.

## PSYC 035. Social Psychology

Social psychology argues that social context is central to human experience and behavior. This course provides a review of the field with special attention to relevant theory and research. The dynamics of cooperation and conflict, the self, group identity, conformity, social influence, prosocial behavior, aggression, prejudice, attribution, and attitudes are discussed.
Prerequisite: PSYC 001.
Social sciences.
1 credit.
Spring 2015. Ward.

## PSYC 036. Thinking, Judgment, and

 Decision MakingPeople in the modern world are flooded with major and minor decisions on a daily basis. The available information is overwhelming, and there is little certainty about the outcomes of any of the decisions people face. This course explores how people should go about making decisions in a complex, uncertain world; how people do go about making decisions in a complex, uncertain world; and how the gap between the two can be closed. Prerequisite: PSYC 001.
Social sciences.
1 credit.
Fall 2014. Schwartz.

## PSYC 038. Clinical Psychology

A consideration of major forms of psychological disorder in adults and children. Cognitive, behavioral, psychodynamic, sociocultural, and biological theories of abnormality are examined, along with their corresponding modes of treatment.
Prerequisite: PSYC 001.
Social sciences.
1 credit.
Fall 2014. Krause. Spring 2015. Reimer.
PSYC 039. Developmental Psychology
Do infants have concepts? How do children learn language? These questions and others are addressed in this survey course of physical, cognitive, social, and emotional development during infancy and early childhood. The course
asks how and why human minds and behaviors develop, examining the theoretical perspectives and empirical evidence on the nature of
developmental change.
Prerequisite: PSYC 001.
Social sciences.
Eligible for COGS credit.
1 credit.
Fall 2014. Christie.

## PSYC 041. Children at Risk

Violence, educational inequality, war, and chronic poverty are key contexts for many children's lives We consider children's responses to adversity from clinical, developmental and ecosystemic perspectives. In addition, we explore the role of psychology in both prevention and social policy affecting children and families
Prerequisites: PSYC 001 and either PSYC 038:
Clinical Psychology or PSYC 039: Developmental Psychology or permission of the instructor. Social sciences.
1 credit.
Not offered 2014-2015. Reimer.

## PSYC 046. Psychology and Economic

 RationalityThe discipline of economics makes a set of assumptions about human motivation and decision making. This course examines those assumptions in light of evidence from other social sciences, especially psychology. The course is taught in a seminar format, open especially to students in psychology and economics.
Prerequisites: PSYC 001 and ECON 001 or related preparation with permission of instructor
Social sciences.
1 credit.
Not offered 2014-2015. Schwartz.
PSYC 048. Gender and Psychopathology
Why are certain clinical syndromes, such as depression, overrepresented among women, while others, such as aggression, are more common among men? This course explores gender differences in emotion socialization, coping styles, and mental illness, including depression, eating disorders, posttraumatic stress, aggressive disorders, and substance abuse. It also critiques definitions of sex and gender and methodological approaches to the study of group differences.
Prerequisites: PSYC 001 and PSYC 038 Clinical Psychology
Social sciences.
1 credit.
Spring 2015. Krause.

## PSYC 050. Developmental

## Psychopathology

This course covers several psychological disorders that often first appear in childhood and adolescence, including autism and other developmental disorders, attention-deficit disorder, conduct disorder, eating disorders, and emotional disorders. Theories about the causes and treatment are discussed. A heavy emphasis is on current research questions and empirical findings related to each disorder.
Prerequisites: PSYC 001 and either PSYC 038:
Clinical Psychology or PSYC 039: Developmental Psychology or permission of the instructor.
Social sciences.
1 credit.
Not offered 2014-2015. Gillham.

## PSYC 055. Family Systems Theory and

 Psychological ChangeSystems theory is important in clinical, educational, medical and organizational contexts. This course explores family systems perspectives on illness and change. Research and theory are supplemented with popular film, documentaries, and therapeutic case histories to understand how psychologists work with individuals and organizations to address developmental, communication, and emotional impasses.
Prerequisites: PSYC 001 and either PSYC 038: Clinical Psychology or PSYC 039: Developmental Psychology or permission of the instructor.
Social sciences.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015. Reimer.

## PSYC 090. Practicum in Clinical

 PsychologyAn opportunity for advanced psychology students to gain supervised experience in off-campus clinical settings. Requirements include 8 hours per week in an off-campus placement, weekly meetings to discuss placement experiences and relevant readings, and a major term paper.
Students are expected to have clinical contact with clients/patients and to have an on-site supervisor. Students are responsible for arranging a
placement, in consultation with the instructor in advance of the semester. Students applying for this course must have at least a B average in psychology. Contact the instructor for details and an application form. When taken in the senior year, this course fulfills the comprehensive requirement in psychology. Students who plan to take PSYC 090 to fulfill the senior comprehensive requirement must apply by April 15 of the junior year. For all other students, applications are due November 4.

Prerequisites: PSYC 001 and one of the following: PSYC 038: Clinical Psychology, PSYC 041: Children at Risk or PSYC 050: Developmental Psychopathology. Enrollment is limited to seniors and juniors. If the course over-enrolls, priority is given to senior majors and special majors.
Social sciences. Community-based Learning course.
1 credit.
Spring 2015. Gillham. Reimer.

## PSYC 091. Special Topics in Behavioral

 NeuroscienceCurrent issues in behavioral neuroscience are considered from both a clinical and an experimental perspective. Topics include learning and memory, with a focus on emotional memory and its relation to anxiety disorders; memory storage, with a focus on the impact of brain damage; neuropsychiatric and degenerative disorders, including schizophrenia, clinical depression, Alzheimer's and Parkinson's diseases; psychopharmacology, with a focus on drug addiction.
Prerequisites: PSYC 001 and PSYC 030:
Physiological Psychology or permission of the instructor.
Social sciences.
1 credit.
Fall 2014. Schneider.

## PSYC 094. Independent Research

Students conduct independent research projects. They typically study problems with which they are already familiar from their courses. Students must submit a written report of their work. Registration for independent research requires the sponsorship of a faculty member in the Psychology Department who agrees to supervise the work.
Each semester. Staff.

## PSYC 095. Tutorial

Any student may, under the supervision of a member of the Psychology Department, work in a tutorial arrangement for a single semester. The student is thus allowed to select a topic of particular interest and, in consultation with a faculty member, prepare a reading list and work plan. Tutorial work may include field research outside Swarthmore.
Each semester. Staff.

## PSYC 096 and 097. Senior Thesis

A senior thesis, which is a yearlong empirical research project, fulfills the senior comprehensive requirement in psychology. It must be supervised by a member of the department and must be taken as a two-semester sequence for 1 credit each semester. Admission requirements include a B+ average in psychology and overall, an approved topic, an adviser, and sufficient advanced work in psychology to undertake the thesis. The supervisor
and an additional reader (normally a member of the department) evaluate the final product. Students should develop a general plan in consultation with an adviser by the end of the junior year. Students are encouraged to begin thesis work during the summer preceding the senior year.
Prerequisites: PSYC 001 and PSYC 025: Research Design and Analysis and permission of a research supervisor.
Social sciences.
1 credit each semester.
Each semester. Staff.

## PSYC 098. Senior Research Project

As one means of meeting the comprehensive requirement, a student may select a topic in psychology in consultation with psychology faculty. Usually prepared during the fall semester of the senior year, the student writes a substantial paper on the topic based on library research or original empirical research. In addition to submitting written reports, students participate in a poster conference at the end of the semester. Onehalf credit or one credit with a letter grade is awarded for all components of the project. See the department website for further details www.swarthmore.edu/academics/psychology/acad emic-program/majors-and-minors.xml.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis, and permission of a research adviser.
Social sciences.
Section 01. 0.5 credit.
Section 02.1 credit.
Each semester. Staff.

## PSYC 102. Research Practicum in

Perception and Cognition
In this course, students conduct research projects singly or in small groups in collaboration with the instructor. Projects include designing, implementing, analyzing and reporting an experiment. Project topics are negotiated at the beginning of the semester. Past projects have studied eye-movements and decision-making, perception of the bodily self, self-motion and space perception, metaphor processing, and even experimental demand characteristics. All students meet together for a weekly lab meeting; additional weekly meeting times will be scheduled. When taken in the senior year, this course fulfills the comprehensive requirement in psychology.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis and permission of the instructor.
Social sciences.
Section 01: 0.5 credit.
Section 02: 1 credit.
Not offered 2014-2015. Durgin.

## PSYC 103. Research Practicum in

## Behavioral Neuropharmacology

In this practicum students conduct research projects in small groups in collaboration with the instructor. Projects include designing,
implementing, analyzing and reporting an experiment. Experiments are directed at characterizing and pharmacologically targeting underlying mechanisms mediating abnormal fear memory, based on an animal model of anxiety disorders. When taken in the senior year, this practicum fulfills the comprehensive requirement in psychology and in neuroscience.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis; PSYC 30: Behavioral Neuroscience; prior training in conducting animal research and permission of the instructor. Social sciences.
0.5 credit.

Fall 2014. Schneider.

## PSYC 104. Research Practicum in

 Language and MindIn this course students conduct research projects singly or in small groups in collaboration with the instructor. Projects include designing, implementing, analyzing and reporting an experiment. Project topics are negotiated at the beginning of the semester. Past projects have investigated how people understand the perspective of conversational partners, how comprehenders resolve linguistic ambiguity, how perceivers infer what a speaker means from what they have said, and hemispheric differences in the way the brain processes language. All students meet together for a weekly lab meeting; additional weekly meeting times will be scheduled. When taken in the senior year, this course fulfills the comprehensive requirement in psychology.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis, and permission of the instructor.
Social sciences.
Section 01: 0.5 credit.
Section 02: 1 credit.
Not offered 2014-2015. Grodner.

## PSYC 105. Research Practicum in Psychology and Neuroscience: Social Imitation

In this course students conduct research projects singly or in small groups in collaboration with the instructor. Projects include designing,
implementing, analyzing and reporting an experiment. Project topics are negotiated at the beginning of the semester but will generally focus on topics related to social imitation, including why we tend to imitate others, what purposes social imitation serves, the consequences of social imitation for the experience of empathy, how imitation may give rise to emotional contagion,
and how interpersonal factors such as similarity, attractiveness, and race bias may affect imitation. All students meet together for a weekly lab meeting; additional weekly meeting times will be scheduled. When taken in the senior year, this course fulfills the comprehensive requirement in psychology.
Prerequisites: PSYC 001; PSYC 025 Research
Design and Analysis; either PSYC 031A Social, Cognitive and Affective Neuroscience or PSYC 035 Social Psychology and permission of the instructor.
Social sciences.
Section 01: 0.5 credit.
Section 02: 1 credit.
Fall 2014. Norris.

## PSYC 106. Research Practicum in

## Cognitive Development

This course provides experience in conducting research with infants and young children. Students conduct research projects singly or in small groups in collaboration with the instructor. Students will design, implement, analyze, and report an experiment. Project topics are negotiated at the beginning of the semester and are focused on language and concept acquisition as well as the interaction between language and cognition early in development. All students meet together for a weekly lab meeting; additional weekly meeting times will be scheduled. When taken in the senior year, this course fulfills the comprehensive requirement in psychology.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis and permission of the instructor. PSYC 039 Developmental Psychology is strongly recommended.
Social sciences.
1 credit.
Spring 2016. Christie.

## PSYC 108. Research Practicum in School-

## Based Interventions

This course provides experience conducting research on school-based interventions. Students collaborate on research that is evaluating schoolbased interventions designed to promote wellbeing in early adolescents. Students gain experience in many aspects of the research process, such as reviewing research literature, developing hypotheses, collecting, entering and analyzing data, writing in journal article format and presenting findings. All students meet together for lab meetings; additional meeting times will be scheduled. When taken in the senior year, this course fulfills the comprehensive requirement in psychology.
Commitment: 2 semester (fall and spring) commitment required.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis and at least one of the
following: PSYC 038: Clinical Psychology; PSYC 041: Children at Risk; PSYC 050: Developmental Psychopathology; PSYC 055: Family Systems Theory and Psychological Change; and permission of the instructor.
Social sciences. Community-based Learning course.
1 credit each semester.
Not offered 2014-2015. Gillham.

## PSYC 109. Research Practicum in Clinical

 PsychologyThis course provides experience in conducting research related to clinical psychology or positive psychology. Students collaborate on projects evaluating psychosocial interventions designed to promote well-being. Students gain experience in many aspects of the research process, such as reviewing research literature, developing hypotheses, collecting, entering and analyzing data, writing in journal article format and presenting findings. All students meet together for lab meetings; additional meeting times will be scheduled. When taken in the senior year, this course fulfills the comprehensive requirement in psychology.
Commitment: 2 semester (fall and spring) commitment required.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis and permission of the instructor. PSYC 038: Clinical Psychology is strongly preferred.
Social sciences. Community-based Learning course.
1 credit each semester.
Not offered 2014-2015. Gillham.

## Seminars

Note: Admission to honors seminars normally requires at least a B+ in the associated core course. Enrollment in seminars is normally limited to 12 students.

## PSYC 130. Seminar in Behavioral

 NeuroscienceCourse previously titled Seminar in Physiological Psychology
An analysis of the neural bases of motivation, emotion, learning, memory, and language.
Generalizations derived from neurobehavioral relations are brought to bear on clinical issues. Prerequisites: PSYC 001 and PSYC 030:
Behavioral Neuroscience or permission of the instructor.
Social sciences.
Eligible for COGS credit.
1 credit.
Spring 2015. Schneider.

## PSYC 131A. Seminar in Psychology and

## Neuroscience: The Social Brain

This seminar focuses on a critical analysis of current social neuroscience literature, covering topics such as person perception, empathy, perspective taking, emotion, attitudes, relationships, stereotypes and prejudice. Students consider evidence from studies using a broad spectrum of methods, including behavioral measures, functional neuroimaging, neurophysiological recordings, neuropsychology and computational modeling.
Prerequisites: PSYC 001 and PSYC 031A: Social, Cognitive and Affective Neuroscience or permission of the instructor.
Social sciences.
Eligible for COGS credit.
1 credit.
Spring 2015. Norris.

## PSYC 132. Perception, Cognition and the

## Embodied Mind Seminar

This seminar examines foundational issues and theories in the empirical study of human perception and cognition including the interplay between perception, action, language, and reasoning. Emphasis is placed on skeptical rigor in exploring philosophical and neuroscientific considerations regarding embodied cognition. What counts as an explanation of experience? How could conscious beings evolve? What is the relationship between perception and cognition? Topics vary from year to year.
Prerequisites: PSYC 032: Perception, PSYC 033: Cognitive Psychology or COGS 001: Introduction to Cognitive Science or permission of the instructor.
Social sciences.
1 credit.
Not offered 2014-2015. Durgin.
PSYC 133. Metaphor and Mind Seminar
This seminar examines scientific theories of metaphor with an emphasis on using metaphor as a way of understanding the representation of meaning in the brain and the communication of meaning.
Prerequisites: PSYC 033: Cognitive Psychology, PSYC 034: Psychology of Language or COGS
001: Introduction to Cognitive Science or permission of the instructor.
Social sciences.
1 credit.
Spring 2015. Durgin.
PSYC 134. Seminar in Psycholinguistics
(Cross-listed as LING 134)
An advanced study of special topics in the psychology of language. A research component is sometimes included.

Prerequisites: PSYC 001 and PSYC 034:
Psychology of Language or permission of the instructor.
Social sciences.
Eligible for COGS credit.
1 credit.
Not offered 2014-2015. Grodner.
PSYC 135. Seminar in Social Psychology
The seminar will provide an opportunity for critical exploration of contemporary topics in social psychology, including findings from crosscultural and social neuroscience research. Various perspectives and methods for investigating how human mind and social behavior interact with situational and environmental factors are considered. Real world implications and applications are also discussed.
Prerequisites: PSYC 001 and PSYC 035: Social
Psychology or permission of the instructor. PSYC
025: Research Design and Analysis is strongly preferred.
Social sciences.
1 credit.
Fall 2014. Ward.
PSYC 136. Seminar in Thinking, Judgment, and Decision Making
The seminar considers in depth several of the topics introduced in PSYC 036.
Prerequisites: PSYC 001 and PSYC 036:
Thinking, Judgment, and Decision Making or permission of the instructor.
Social sciences.
1 credit.
Spring 2015. Schwartz.

## PSYC 138. Seminar in Clinical Psychology

An advanced study of special topics in clinical psychology, including etiology and treatments for several major disorders, and the role of context and culture in the understanding and treatment of psychological disorders. In fall 2014 we also focus on developmental psychopathology and special considerations involved in the psychotherapy of childhood disorders.
Prerequisites: Psych 001 and Psych 038: Clinical Psychology or permission of the instructor. Social sciences.
1 credit.
Fall 2014. Reimer.

## PSYC 139. Seminar in Developmental

## Psychology

(Cross-listed as LING 139)
An advanced study of special topics in development: language and concept acquisition.
We discuss findings from newborn infants, crosscultural, and atypical population research relevant
to the issues of language acquisition and conceptual development.
Prerequisites: PSYC 001 and PSYC 039:
Developmental Psychology or PSYC 034:
Psychology of Language or permission of the instructor.
Social sciences.
1 credit.
Fall 2014. Christie.

## PSYC 180. Honors Thesis

An honors thesis, a yearlong empirical research project, fulfills the senior comprehensive requirement in psychology as part of an honors major in psychology. It must be supervised by a member of the department and must be taken as a two-semester sequence for 1 credit each semester. Students should develop a general plan in consultation with an adviser by the end of the junior year. When possible, students are encouraged to begin work on their thesis during the summer before their senior year.
Prerequisites: PSYC 001; PSYC 025: Research Design and Analysis and permission of a research supervisor.
Social sciences.
1 credit each semester.
Each semester. Staff.

| Coordinator: | JOHN CASKEY (Economics) <br> Cathy Wareham (Administrative Assistant) |
| :--- | :--- |
|  |  |
| Committee: | Erin Todd Bronchetti (Economics) <br> Robinson Hollister (Economics) <br>  <br> Ellen Magenheim (Economics) <br>  <br> Carol Nackenoff (Political Science) <br>  <br>  <br>  <br>  <br> Keith Reeves (Political Science) <br> Lynne Schofield (Mathematics and Statistics) <br>  <br>  <br> Lisa Smulyan (Educational Studies) <br>  <br>  <br> Richard Valelly (Political Science) <br> Robert Weinberg (History) |

The minor in public policy enables students to combine work in several departments toward both critical and practical understanding of public policy issues, including those in the realm of social welfare, health, energy, environment, food and agriculture, and national and global security. These issues may be within domestic, foreign, or international governmental domains. Courses in the minor encompass the development, formulation, implementation, and evaluation of policy.
Note: The faculty of the Public Policy Program and the Curriculum Committee have determined that policy-related courses and internships have become so ingrained in the College's curriculum that the interdisciplinary program has become redundant. Current students, through the class of 2016, will be able to pursue a minor in public policy. After that time, students may continue to take all of the same courses through the economics, educational studies, engineering, history, mathematics and statistics, and political science departments, but the public policy minor will no longer be offered. Internships related to public policy will continue to be supported by the College, even after the program ends.

## The Academic Program

The minor in public policy may be taken together with a course major in any field or as a minor in the Honors Program. At a minimum, the minor consists of six credits and an internship. The program of each minor should be worked out in consultation with the coordinator of the Public Policy Program and approved by the coordinator, preferably at the same time as majors in the Course and Honors Programs are planned. The public policy minor consists of 6 credits of work. Basic academic requirements for the minor cover three areas: (1) economic analysis, (2) political analysis, and (3) quantitative analysis. These may each be met by taking one course or seminar in each of the three categories; courses that fulfill these requirements are listed below.
In addition to these three preparatory or prerequisite courses, three credits must be taken from among the policy-oriented courses listed
below. With the approval of the Public Policy coordinator, other courses, whether taken at Swarthmore or other colleges and universities, that have a substantial focus on public policy analysis can also count for Public Policy credit. If a student takes a two-credit seminar to fulfill a Public Policy requirement, only one credit of the seminar can be counted toward the requirement. Please note that seminars are limited in size and that most departments give priority to departmental majors and minors, so Public Policy minors might not be admitted. In addition, students should take into account course prerequisites when planning the minor program.
Some students may wish to focus their public policy studies heavily in a particular field, e.g. urban policy, food studies, poverty, health, or transportation. This is encouraged for students who have such specific interests.

## Internship

Some direct experience or practical responsibility in the field, through work in a public, private, or voluntary agency, is required for graduation with a minor in public policy. Normally, students will hold internships between their junior and senior years. The internship program is supervised by the coordinator of the Program. Planning for the internship should begin six to eight months before the time it might commence. Students should keep the Program coordinator informed of their internship plans and, if needed, seek his or her advice in finding an appropriate internship. Funding for an internship is sometimes provided by the agency in which a person serves. Frequently, however, students require support to cover their travel and maintenance costs during the eight to ten weeks of a summer internship. For students who are minors, the College can generally provide support, up to a specified limit, to help fund the internship. Other possible sources of support for an internship include the James H. Scheuer Summer Internships in Environmental and Population Studies, the J. Roland Pennock Fellowships in Public Affairs, the Joel Dean Awards, the Sam Hayes III Research Grant, the Lippincott Peace Fellowships, and the David G. Smith Internship in Health and Social Policy. Information on each of these sources can be
obtained in the Public Policy Program Office, 105 Trotter.

## Thesis / Culminating Exercise

Students who are honors minors in Public Policy must write a senior thesis for one of their policy credits. Frequently, but not always, the thesis is related to the internship and/or a student's focus of study. Students writing a thesis should register for PPOL 097 in the fall of their senior year.

## Honors Minor Option

Students construct an honors minor in public policy by combining the one-credit thesis with a related course or seminar. Policy work examined as a minor should meet three criteria: first, the thesis and the associated coursework should fit together in some fashion that is coherent and examinable; second, the honors minor preparation must meet the College requirement that the work be in a discipline outside the student's major department; and third, each student must have his/her proposed preparation approved by the Public Policy Program coordinator who may consult with the Public Policy Committee.
For more information on the public policy minor, internships, theses and related topics, talk with the coordinator of the program.

## Off-Campus Study

Minors planning to study abroad during their junior year should confirm that any required courses that have not been completed will be offered during their remaining time on campus. For students who will be away during the spring semester, it is highly recommended that the internship be secured before leaving or that the internship be done after the sophomore year. Communicating with the program office and, more importantly, with a prospective internship organization, from abroad is difficult and will limit opportunities.

## Areas of Policy Focus

As noted above, some students may wish to focus their substantive work in policy heavily in a particular field. Given the size and interests of the faculty, not every area of public policy is well represented within the College's curriculum and faculty. But generally students can fulfill even highly specialized interests within the tri-College community or by taking courses at the University of Pennsylvania. Courses that fulfill the public policy foundation requirements in political analysis, economic analysis, and quantitative analysis as well as other courses that count toward the program are listed subsequently. As noted above, students can petition the program coordinator to have appropriate courses that are not listed below count toward the minor.

## Foundation Requirements

## Political Analysis Courses

POLS 002. American Politics or equivalent policy analysis in political science
POLS 003. Comparative Politics
POLS 004. International Politics
Economic Analysis Courses
ECON 011. Intermediate Microeconomics
ECON 041. Public Economics
ECON 141. Public Economics*
Quantitative Analysis Courses
ECON 031. Introduction to Econometrics
ECON 035. Econometrics
ENGR 057/ECON 032. Operations Research
STAT 011. Statistical Methods
STAT 031. Data Analysis and Visualization
STAT 061. Mathematical Statistics
Policy Courses and Seminars (Arranged by Department)*
ECON 005. Savage Inaccuracies: The Facts and
Economics of Education in America (Cross-listed
as EDUC 069)
ECON 041. Public Economics
ECON 042. Law and Economics
ECON 044. Urban Economics
ECON 051. The International Economy
ECON 073. Race, Ethnicity, and Gender in Economics
ECON 075. Health Economics
ECON 081. Economic Development
ECON 082. Political Economy of Africa
ECON 101A. Economic Theory: Advanced
Microeconomics*
ECON 141. Public Economics*
ECON 151. International Economics*
ECON 171. Labor and Social Economics*
ECON 181. Economic Development*
EDUC 068/SOAN 020B. Urban Education
ENGR 004. Introduction to Environmental Protection
ENGR 066. Environmental Systems Engineering
HIST 049. Race and Foreign Affairs
HIST 054. Women, Society, and Politics
HIST 066. Disease, Culture and Society in the Modern World
LING 032. International Perspectives on Deafness
PPOL 097/098. Public Policy Thesis
POLS 015. Ethics and Public Policy
POLS 029. Public Opinion, Polling, and Public Policy
POLS 032. Gender, Politics, and Policy
POLS 033. Race, Ethnicity, and Public Policy:
African Americans

## Public Policy

POLS 039. Faith-Based Social Policy in the
United States
POLS 041. Political Economy and Social Policy:
The United States in the 1990s
POLS 042. Congress in the American Political System
POLS 043. Environmental Politics and Policy
POLS 048. The Politics of Population
POLS 055. China and the World
POLS 070B. The Politics of Punishment
POLS 104. American Political System
POLS 106. The Urban Underclass and Public Policy
POLS 111. International Politics*
SOAN 020B/EDUC 068. Urban Education

Course descriptions can be found in each department's course listings in this catalog.

* Note: Seminars are limited in size, departmental majors and minors are often given registration priority, so public policy minors may not be admitted.

YVONNE P. CHIREAU, Professor
STEVEN P. HOPKINS, Professor and Chair
MARK I. WALLACE, Professor
TARIQ al-JAMIL, Associate Professor
GWYNN KESSLER, Associate Professor
ELLEN M. ROSS, Associate Professor
HELEN PLOTKIN, Visiting Assistant Professor (part time)
ANITA PACE, Administrative Assistant

The Religion Department plays a central role in the Swarthmore academic program. One attraction of the study of religion is the cross-cultural nature of its subject matter. The discipline addresses the complex interplay of culture, history, text, orality, performance, and personal experience. Religion is expressed in numerous ways: ritual and symbol, myth and legend, story and poetry, scripture and theology, festival and ceremony, art and music, moral codes and social values. The department seeks to develop ways of understanding these phenomena in terms of their historical and cultural particularity and in reference to their common patterns.
Courses offered on a regular cycle in the department present the development of Judaism, Islam, Buddhism, Hinduism, Afro-Caribbean religions, and Christianity as well as the development of religion and religions in the regional areas of the Indian Sub-Continent (Hindu, Jain, Buddhist, Muslim, Sikh), Sri Lanka and Southeast Asia (Buddhism, Hinduism, and Islam), China (Taoist, Confucian, spirit cults), Japan (Buddhist and Shinto), Africa (Fon, Yoruba, Dahomey, and Kongo), the Middle East (Christian, Islamic, Jewish, Gnostic, Mandean), Jewish, Christian, and Islamic Europe and the Americas (from New World African traditions, Vodou and Candomblé, to Neo Paganism and Civil Religion in North America). Breadth in subject matter is complemented by strong methodological diversity; questions raised include those of historical, theological, philosophical, literary, feminist, sociological, and anthropological interests. This multifaceted focus makes religious studies an ideal liberal arts major.

## The Academic Program

Normally, the student who applies for a major or minor in religion will have completed (or be in the process of completing) two courses in the discipline. Majors successfully complete eight credits in religion, including the required Senior Symposium (Religion Café) in the fall of the senior year, to meet departmental and college graduation requirements. Minors complete five credits in the Religion Department and are not required to take the Senior Symposium. For many students, courses numbered Religion 001-013 serve as points of entry for advanced work in the department, and sometimes as prerequisites for
higher-level courses, though this is not always the case.
Students come to the study of religion through various courses at various levels, and the department encourages this flexibility and diversity of entry-points by having no introductory course requirements, nor are there required distribution courses. The major in religion is planned in consultation with faculty members in the department, the individual student's adviser, along with other relevant faculty, who encourage curricular breadth (close work in more than one religious tradition) and methodological diversity in the proposed program. Such breadth and diversity in the program is encouraged at the very beginning in the major's Sophomore Plan.
The curriculum in the Religion Department is strongly comparative, thematic, and interdisciplinary, so it is relatively easy for students to propose programs that are crosscultural and trans-disciplinary in scope. Religion majors are encouraged to include study abroad in their programs, planned in collaboration with the department. Often a student's independent study project done while studying abroad is expanded into a one or two-credit honors or course thesis upon return to Swarthmore.

## Course Major and Minor

## Requirements

General major requirements are 8 credits in religion, including the Senior Symposium. En route to completing (at least) eight religion credits, students who major in religion are free to take a variety of courses of their own choice, in consultation with the department and their departmental adviser, but are required to enroll in the Senior Symposium: Religion Café, in the fall of the student's senior year. Successful completion of the symposium will be the culminating requirement for the course major. For all religion majors the symposium will be a one-credit seminar and will include a term essay assignment.
Religion minors will complete (at least) five religion credits, and are not required to enroll in the Senior Symposium: Religion Café.
Students may choose to write a thesis. Those seniors who desire to complete a one-credit thesis or a two-credit thesis as part of the major will need to obtain permission from a faculty adviser in consultation with the department. For majors, this
exercise will not substitute for the Senior Symposium.
With department approval, up to three courses cross-listed but not housed within the Religion Department may count toward the major. Only one such cross-listed course will count toward the minor. Up to two non-Swarthmore courses (i.e., courses taken abroad or domestically) may count toward the major; only one such course is permissible for the minor. The department will accept two courses in language (Arabic, Hebrew, or other proposed research languages) toward the major with the approval of department faculty.
The department will accept one course in language (Arabic, Hebrew, or other proposed research languages) toward the minor with the approval of department faculty.

## Admission to the Major

The Religion Department considers two areas when evaluating applications: overall GPA and quality of prior work in religion courses.
Applicants are sometimes deferred for a term so the department can better evaluate an application for the major (generally it is expected that students will have taken two courses in religion before being accepted into the major/minor). A student's demonstrated ability to do at least B/B- work in religion is required for admission to the major in course.

## Honors Major and Minor

## Requirements

All honors majors and minors fulfill requirements for the Course Program. Beyond this step, the normal method of preparation for the honors major will be done through three seminars, although with the consent of the department, a single 2-credit thesis, a 1-credit thesis/course combination, or a combination of two courses (including attachments and study abroad options) can count for one honors preparation. In general, only one such preparation can consist of non-seminar-based studies.
In the religion major, the mode of assessing a student's three 2-credit preparations in religion (seminars or course combinations, but not 2-credit theses) will be a three-hour written examination set by an external examiner. In addition, with the exception of a thesis preparation, a student will submit to each external examiner a Senior Honors Study paper. Senior Honors Study papers will be between 2500 and 4000 words and will normally be a revision of the final seminar paper or, in the event of a non-seminar mode of preparation, a revised course paper. A final oral examination by the examiner follows the written exam. 2-credit theses will be read and orally examined by an external examiner (with no extra Senior Honors Study requirement).

In the minor, the mode of assessing a student's one 2-credit preparation in religion will also be a threehour written examination (and the oral) set by an external examiner, along with a Senior Honors Study paper.
Seminars and the written and oral external examinations are the hallmarks of honors. Seminars are a collaborative and cooperative venture among students and faculty members designed to promote self-directed learning. The teaching faculty evaluates seminar performance based on the quality of seminar papers, comments during seminar discussions, and when required, a final paper. Since the seminar depends on the active participation of all its members, the department expects students to live up to the standards of honors. These standards include: attendance at every seminar session, timely submission of seminar papers, reading of seminar papers before the seminar, completion of the assigned readings prior to the seminar, active engagement in seminar discussions, and respect for the opinions of the members of the seminar. Students earn double-credit for seminars and should expect twice the work normally done in a course. The external examination, both written and oral, is the capstone of the honors experience.

## Admission to the Honors Program

Because of the nature of different instructional formats (e.g., seminars) and of the culminating exercise in the Honors Program, the department expects applicants to this program to have at least a $\mathrm{B}+/ \mathrm{B}$ average in religion courses as well as an overall average above the College graduation requirement for admission to the Honors Program.

## Application Process for the Major or the Minor

Sophomore applicants: for instructions and forms, please visit the "Sophomore Plan of Study" page under "Academic Advising \& Support" on the Dean's Office website.
Junior and senior applicants: please visit the Registrar's Office website for the "Change/Add a Major or Minor" form.

## Please note:

All applications to the religion major or minor should include a one to two paragraph statement that details the applicant's reason for applying to the department (we encourage curricular breadth and diversity of courses).
All religion majors must take RELG 095 Religion Café: Senior Symposium in the fall of senior year.

## Transfer Credit

For policy regarding domestic study or any summer study see the Registrar's Office and website: Policies, "Transfer Credit Policy - Credit for Work Done Elsewhere."

## Off-Campus Study

In many cases, credit may be earned in the Religion Department for study abroad or at other institutions in this country. Typically, the Religion Department will approve a maximum of 2 religion credits for off-campus study. For international study during the academic year, see the OffCampus Study Office and website. In addition, students who are seeking credit for study to be completed at other institutions should consult with the Religion Department off-campus study representative prior to enrolling in courses. In order to seek credit for any work completed while away from Swarthmore the general policy is that students must have the Registrar's or Off-Campus Study Office's approval form signed by the Religion Department representative prior to undertaking the course or courses.
Further Notes about International Off-Campus Study:

1. Prior to the international study opportunity, speak with the Faculty Adviser for Off-Campus Study, or with Rosa Bernard, Assistant Director for Off-Campus Study, in the Off-Campus Study office. Carefully review all material received from the Off-Campus Study Office.
2. Complete the "Application for Pre-Estimation of Study Abroad Credit." This will include getting signatures from representatives in departments from which you will be requesting credit.
3. While away, contact the Religion Department if any changes are made to the preapproved schedule.
4. During your study away from Swarthmore, keep all relevant course material including syllabi, class notes, papers, and examinations, etc.
5. At the beginning of the semester after your return, meet with an Off-Campus Study Office staff member to organize your materials for evaluation for credit.
6. Complete the "Record of Departmental Materials Submission" (available at the OffCampus Study Office). At the time you submit all supporting documents (e.g., syllabi, papers, examinations, class notes, etc.) to the Religion Department, have this form signed by the Religion Department representative who oversees transfer credit requests in religion.
7. The Religion Department will then consider credit award and will send the student, the Registrar, and the Off-Campus Study Office its decision. At this time, you may pick up your supporting materials in the Religion Department Office.

## Courses

RELG 001. Religion and Human
Experience
This course introduces the nature of religious worldviews, their cultural manifestations, and their
influence on personal and social selfunderstanding and action. The course explores various themes and structures seminal to the nature of religion and its study: sacred scripture, visions of ultimate reality and their various manifestations, religious experience and its expression in systems of thought, and ritual behavior and moral action. Members of the department will lecture and lead weekly discussion sections.
Writing course.
1 credit.
Not offered 2014-2015.
RELG 001C. Religion and Terror in an Age of Hope and Fear
Religion kills: this is the verdict against religion since the September 11, 2001 attacks on the World Trade Center. Since that time, here and abroad, the United States views many forms of religion as potent security threats. Various forms of Judaism, Christianity, and Islam, in particular, are seen as direct challenges to the secular ethos and global mission of late capitalist societies. This teamtaught course in religion, politics, and culture, will offer a counter-narrative to the argument that religion and violence are equivalent terms using the resources of postcolonial theory, critical race theory, sustainability economics, liberation theology, and psychoanalytic theory. No prerequisites.
1 credit.
Eligible for ISLM or PEAC credit. Not offered 2014-2015

## RELG 002. Religion in America

This course is an introduction to religion in the United States, beginning with Native American religions and European-Indian contact in the colonial era, and moving forward in time to present-day movements and ideas. The course will explore a variety of themes in American religious history, such as slavery and religion, politics and religion, evangelicalism, Judaism and Islam in the United States, "cults" and alternative spiritualities, New Age religions, popular traditions, and religion and film, with an emphasis on the impact of gender, race, and national culture on American spiritual life.
1 credit.
Spring 2015. Chireau.
RELG 003. The Bible: In the Beginning... The Bible has exerted more cultural influence on the West than any other single document; whether we know it or not, it impacts our lives. This class critically examines the Hebrew Bible (Old Testament)—from its Ancient Near Eastern context to its continued use today. We explore a variety of scholarly approaches to the Biblehistorical, literary, postmodern-as we read the Bible both with the tools of source-criticism and as cultural critics. Particular focus will be placed on
constructions of God, gender, nature, and the "other" in biblical writings as well as the themes of collective identity, violence, and power.
Eligible for GSST or INTP credit.
1 credit.
Fall 2014. Kessler.

## RELG 003A. Hebrew Bible and its Modern Interpreters

When was the last time you read the most important text in the West? The Hebrew Bible isn't what it used to be. In the modern period, the scientific study of the Bible opened up new ways of thinking about sacred texts. This is an introduction to the Hebrew Bible as a literary, historical, political, and religious document. We will explore the use and abuse of the Hebrew Bible by Jews and Christians, paying attention to its role in contemporary culture, politics, and ethics.
Reading select books of the Bible, we will emphasize issues of gender and race, revolution and Zionism, genocide and slavery, good and evil. 1 credit.
Not offered 2014-2015.

## RELG 004. New Testament and Early

 ChristianityA discussion-rich introduction to the New Testament in light of recent biblical scholarship. The class engages the issues of authorship and redaction, purpose and structure, and historical context and cultural setting. Some of the particular themes that are studied include the dynamic of canon formation, the synoptic problem in relation to the Gospel of John, first-century Judaism, Greek and Roman influences, the messianic consciousness of Jesus, the use of epistolary literature in Paul, the problem of apocalyptic material, and the wealth of extra-canonical writings (e.g., Gospel of Thomas) that are crucial for examining the rise of Christianity in the years from 30 CE to 150 CE. Novels and films inspired by the New Testament are read and viewed as well.
Eligible for INTP credit and Community-Based Learning.
1 credit.
Spring 2015. Wallace.

## RELG 004B. Jewish Interpretation: From the HolyLand to Hollywood

A famous rabbinic statement proclaims, "If you wish to know The-One-Who-Spoke-and-the-
World-Came-Into-Being, learn aggadah" (Sifre Deuteronomy 11:22). This course further proclaims, if you wish to know Judaism, study Jewish interpretation. The process of Jewish interpretation, begun in the Hebrew Bible and continuing to the present day, offers great insight not only into the ways Jewish tradition, literature, and culture have come into being, but also how these facets of Judaism, and Judaism writ large,
adapt and develop over time. This class begins with Jewish interpretations during the 2nd Temple Period, proceeds to examine in some depth classical rabbinic exegesis, moves on to explore some "off the beaten track" medieval sources, and culminates in contemporary meditations (and movies) about Judaism. We pay attention to both the continuities and disjunctions of Jewish writings and representations over time as we explore what the boundaries are-if indeed there are any-of both Jewish interpretation and Judaism. 1 credit.
Not offered 2014-2015.

## RELG 005. World Religions

Wars are fought; walls go up; hope marches on. Religion plays a crucial role in culture, politics, global events, and in the lives of contemporary peoples world-wide. This class, by examining what religion is and how it manifests itself in multiple ways around the world and in the United States, provides students with religious literacy and analytic skills to better engage as citizens of the world in the 21st century. This course introduces students to both the academic study of religion and to religions as practiced around the world. We will explore textual traditions and lived practices of religions-and investigate the relationships between such texts and practices-in numerous historical and cultural contexts. Topics covered include: definitions and meanings of the term "religion;" understandings and expressions of the sacred; the relationship between violence and religion. We will examine the myths and rituals, the beliefs and practices, institutions, and expression of global religious traditions.
Eligible for PEAC credit.
1 credit.
Spring 2015. Chireau, Kessler.
RELG 005B. Introduction to Christianity
This course is a selective introduction to Christian religious beliefs and practices. This course introduces students to the development and diverse forms of Christianity, drawing on categories from the study of religion including ritual, narrative, art, and theology.
1 credit.
Not offered 2014-2015.
RELG 006. Judaism: God, Torah, Israel
This course explores Judaism through a survey of its history, literature, practices and beliefs-with particular emphasis on the concepts of God, Torah, and Israel (the Jewish people). We examine the fundamental historical developments of Judaism from the biblical to modern eras, paying attention to how Judaism has developed and continues to develop over time. We consider the diversity of Judaism as a religion and the diverse expressions of Jewish identity, particularly in their contemporary North American context(s).

1 credit.
Not offered 2014-2015.

## RELG 006B. The Talmud

This course introduces students to the academic study of the Babylonian Talmud (Bavli)-and through it, the academic study of Judaism.
Through close, critical, and engaged readings of both brief selections and more lengthy passages, the course not only explores the vast seas of the Bavli but also considers the Bavli’s foundational place within Judaism and its importance to Jewish tradition. We begin by reading selections of the Talmud that both seek to situate the material in its immediate historical-literary contexts and to explore current points of relevance. We proceed to a close reading of one sugya (passage) and then spread out to examine some specific topics, focusing on rabbinic constructions of gender and rabbinic theology. The close readings of texts are supplemented by contemporary scholarship on the Talmud and the rabbis of antiquity. Finally, we read two contemporary mediations on Judaism that use the Talmud as their "anchor," their point of reference.
1 credit.
Not offered 2014-2015.

## RELG 007B. Women and Religion

This course will examine the variety of women's religious experiences in the United States. Topics will include the construction of gender and religion, religious experiences of women of color, spiritual autobiographies and narratives by women, Wicca and witchcraft in the United States, and feminist and womanist theology.
Eligible for GSST credit.
1 credit.
Not offered 2014-2015.

## RELG 008. Patterns of Asian Religions

A thematic introduction to the study of religion through an examination of selected texts, teachings, and practices of the religious traditions of South and East Asia structured as patterns of religious life. Materials are drawn from the Buddhist traditions of India, Tibet, China, and Japan; the Hindu and Jain traditions of India; the Confucian and Taoist traditions of China; and the Shinto tradition of Japan. Themes include deities, the body, ritual, cosmology, sacred space, religious specialists, and death and the afterlife.
Writing course.
Eligible for ASIA credit.
1 credit.
Spring 2015. Hopkins.

## RELG 008B. The Qur'an and Its

 InterpretersThis is course will include detailed reading of the Qur'an in English translation. The first part of the course will be devoted to the history of the Qur'an
and its importance to Muslim devotional life. The first portion of the course will include: discussion of the history of the compilation of the text, the methods used to preserve it, styles of Qur'anic recitation, and the principles of Qur'anic abrogation. Thereafter, attention will be devoted to a theme or issue arising from Qur'anic interpretation. Students will be exposed to the various sub-genres of Qur'anic exegesis including historical, legal, grammatical, theological and modernist approaches.
Eligible for ISLM or MDST credit.
1 credit.
Spring 2015. al-Jamil.
RELG 009. The Buddhist Traditions of Asia
This course explores the unity and variety of Buddhist traditions within their historical developments in South, Central, and East Asia, by way of the study of its texts The course will be organized chronologically and geographically, and to a lesser extent thematically, focusing on the formations of early Indian Buddhism (the Nikaya traditions in Påli and Sanskrit), the Theravada in Sri Lanka and Thailand, Mahayana Ch'an/Zen traditions in China and Japan, and Vajrayana (tantra) traditions in Tibet. Themes include narratives of the Buddha and the consecration of Buddha images; gender, power, and religious authority, meditation, liberation, and devotional vision; love, memory, attachment and Buddhist devotion; the body, and the social construction of emotions and asceticism.
Writing course.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.

## RELG 010. African American Religions

What makes African American religion "African" and "American"? Using texts, films, and music, we will examine the sacred institutions of Americans of African descent. Major themes will include Africanisms in American religion, slavery and religion, gospel music, African American women and religion, black and womanist theology, the civil rights movement, and Islam and urban religions. Field trips include visits to Father Divine's Peace Mission and the first independent black church in the United States, Mother Bethel A.M.E. Church.

Eligible for BLST credit.
1 credit.
Fall 2014. Chireau.

## RELG 011. First-Year Seminar: Religion and the Meaning of Life

"Whoever wants to save their life will lose it, but whoever loses their life for my sake will save it." One of the most intriguing contradictions in comparative religious studies is the claim that only
when one forfeits the self can one discover genuine selfhood; the journey to the true self begins by first abandoning one’s assumptions about selfhood through practicing the disciplines of self-emptying and self-giving. In this seminar, we will analyze the collapse of the received notions of the stable self in classical thought and then move toward a postmodern recovery of the self-that-is-not-a-self founded on the spiritual practice of solicitude for the other. Readings may include Plato, Augustine, Rumi, Kierkegaard,
Weil, Nishitani, Bonhoeffer, Levinas, Thich Nhat Hanh, and Dillard. This discussion-rich seminar includes regular student presentations and a community service-learning component.
Eligible for Community-Based Learning. 1 credit.
Not offered 2014-2015.

## RELG 011B. The Religion of Islam: The

 Islamic HumanitiesThis course is a comprehensive introduction to Islamic doctrines, practices, and religious institutions in a variety of geographic settings from the rise of Islam in the seventh century to the present. Translated source materials from the Qur'an, sayings of Muhammad, legal texts, and mystical works will provide an overview of the literary expressions of the religion. Among the topics to be covered are: the Qur'an as scripture and as liturgy; conversion and the spread of Islam; Muhammad in history and in the popular imagination; concepts of the feminine; Muslim women; sectarian developments; transmission of religious knowledge and spiritual power; Sufism and the historical elaboration of mystical communities; modern reaffirmation of Islamic identity; and Islam in the American environment.
Writing course.
Eligible for ISLM or MDST credit.
1 credit.
Fall 2014. al-Jamil.

## RELG 012. The History, Religion, and

 Culture of India I: From the Indus Valley to the Hindu SaintsA study of the religious history of India from the ancient Indo-Aryan civilization of the north to the establishment of Islam under Moghul rule. Topics include the ritual system of the Vedas, the philosophy of the Upanishads, the rise of Buddhist and Jain communities, and the development of classical Hindu society. Focal themes are hierarchy, caste and class, purity and pollution, gender, untouchability, world renunciation, and the construction of a religiously defined social order.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.

## RELG 012B. Hindu Traditions of India:

## Power, Love, and Knowledge

This course is an introduction to the religious and cultural history of Hindu traditions of India from the prehistoric Indus Valley in the northwest to the medieval period in the southeast, and major points and periods in between, with a look also at formative points of the early modern period. Our focus will be on the interactions between Vedic, Buddhist, brahmanical, popular/ritual, and Jain religious traditions in the development, and formation of Hindu religious streams, along with major ritual and ascetic practices, hagiographies, and myths, hymns and poetry, and art and images associated with Hindu identities and sectarian formations, pre-modern and modern. In addition to providing students with a grasp of the basic doctrines, practices, and beings (human, superhuman, and divine) associated with various Hindu traditions, the course also seeks to equip them with the ability to analyze primary and secondary sources.
Eligible for ASIA credit.
1 credit.
Not offered 2014-2015.
RELG 013. The History, Religion, and Culture of India II: Muslim, Hindu, Sikh, and Dalit in North India
After a survey of premodern Hindu traditions, the course tracks the sources of Indo-Muslim culture in North India, including the development of Sufi mysticism; Sindhi, Urdu, and Tamil poetry in honor of the Prophet Muhammad; syncretism under Mughal emperor Akbar; and the consolidation of orthodoxy with Armad Sirhindi and his school in the 16th to 17th century. We then trace the rise of the Sikh tradition in the milieu of the Mughals, northern Hindu Sants and mendicant Sufis, popular goddess worship and village piety, focusing on several issues of religious experience. We then turn to the colonial and post-colonial period through the lenses of the Hindu saints, artists, and reformers (the "nationalist elite") of the Bengali Renaissance, and the political and religious thought of Mohandas Gandhi and Dalit reformer Ambedkar. We will use perspectives of various theorists and social historians, from Ashis Nandy, Partha Chatterjee, Peter van der Veer, to Veena Das and Gail Omvedt.
Eligible for ASIA or ISLM credit.
1 credit.
Not offered 2014-2015.

## RELG 014. Christian Life and Thought in

 the Middle AgesSurvey of western Christian religious culture and thought from the early to the late Middle Ages. Among other topics, the course will consider debates about the nature of the Divine, the person and work of Jesus Christ, heresy and dissent, bodily devotion, love, mysticism, scholasticism,
and holy persons. Readings may include
Augustine, Anselm, Avicenna, Abelard, Hildegard
of Bingen, Francis of Assisi, Catherine of Siena,
Thomas Aquinas, Julian of Norwich, and John
Wyclif.
Eligible for MDST credit.
1 credit.
Not offered 2014-2015.
RELG 015. First-Year Seminar: Religion and Literature: Blood and Spirit
A seminar-style introduction to study of relation of religious ideas to visionary literature, including novels, stories, sacred texts, and films. A variety of critical theories are deployed to understand (or construct) the meaning of different imaginative variations on reality. Academic and creative writers include many or all of the following: Sophocles, Augustine, Joyce, Morrison, O’Connor, Updike, Dostoevsky, Crace, Lewis, Weil, Scorsese, Kazantzakis, Snyder, Abbey, and Camus.
Eligible for INTP credit.
1 credit.
Not offered 2014-2015.

## RELG 015B. Philosophy of Religion

(Cross-listed as PHIL 016)
Searching for wisdom about the meaning of life? Curious as to whether there is a God? Questioning the nature of truth and falsehood? Right and wrong? You might think of philosophy of religion as your guide to the universe. This course considers Anglo-American and Continental philosophical approaches to religious thought using different disciplinary perspectives; it is a selective overview of the history of philosophy with special attention to the religious dimensions of many contemporary thinkers' intellectual projects. Topics include rationality and belief, proofs for existence of God, the problem of evil, moral philosophy, biblical hermeneutics, feminist revisionism, postmodernism, and interreligious dialogue. Thinkers include, among others, Anselm, Kierkegaard, Dostoevsky, Nietzsche, Kant, Wittgenstein, Derrida, Levinas, Weil, and Abe. This year, the central theme of the course is the problem of evil.
Eligible for INTP credit and Community-Based Learning.
1 credit.
Fall 2014. Wallace.

## RELG 016. First-Year Seminar: Spiritual

 Journeys: Into the WildWhat does it mean to take religion "on the road"? How does one "pray with one's feet"? Where is the sacred to be found-on the journey itself or at the place of destination-or both? What is the sacred anyway? Spiritual journeys-pilgrimages to places old and new-are on the rise in
contemporary society. By reading a number of accounts of personal spiritual journeys we will travel the landscape of contemporary religious America-with its vibrancy and variety-and consider our own journeys (spiritual or otherwise) along the way.
1 credit.
Not offered 2014-2015.
RELG 018. Global Christianities
This course explores Christian beliefs and practices in a global context. We consider Christian worldviews, their cultural expressions, history, and influence upon personal and social self-understanding and action. Examples will be drawn from Christian communities in Asia, Africa, Europe, Latin America, and the United States. Themes include images of the sacred and of Jesus and Mary, mother of Jesus; pilgrimage and festivals; saints; gender; power; and religious authority; politics, conflict, and social transformation; and healing traditions. 1 credit.
Spring 2015. Ross.

## RELG 018B. Modern Jewish Thought

Is modern reason compatible with biblical revelation? Beginning with the heretic Spinoza, we'll examine the giants of Jewish thoughtreligious reformers, philosophers, and theologians wrestling with the challenge of modernity, politics, and multiculturalism. Topics will include: the essence of Judaism, the nature of law, religion and state, God and evil, the status of women and nonJews, the legacy of the Holocaust. Readings from: Martin Buber, Abraham Joshua Heschel, Judith Plaskow, Emmanuel Levinas, and others.
1 credit.
Not offered 2014-2015.

## RELG 019. First-Year Seminar: Religion

 and FoodWhy do some people eat the body of their god? What is soul food? Is the pig an abomination? Is there such a thing as "devil's food" and "angel's food"? Which is more spiritual, to feast or to fast? All of these questions are tied together by a common theme: They point to the relationship between food, eating, and the religious experiences of human beings. This seminar will introduce students to the study of religion, using food as an entry point. We will investigate the significance of food across a variety of traditions and explore such issues as diet, sacrifice, healing, the body, ethics, and religious doctrines concerning food. Topics will include religious fasting, vegetarianism, eating rituals, food controversies, purity and pollution, theophagy and cannibalism as sacred practice.
1 credit.
Fall 2014. Chireau.

## RELG 020. Christian Mysticism

This course considers topics in the history of Christian mysticism. Themes include mysticism as a way of life, relationships between mystics and religious communities, physical manifestations and spiritual experiences, varieties of mystical union, and the diverse images for naming the relationship between humanity and the Divine Readings that explore the meaning, sources, and practices of Christian mystical traditions may include Marguerite Porete, Francis of Assisi, Julian of Norwich, Simone Weil, Thomas Merton, and Dorothee Soelle.
Eligible for MDST credit.
1 credit.
Not offered 2014-2015.

## RELG 021. Prison Letters: Religion and Transformation

Focusing on themes of religion and transformation and prison as a literal and metaphorical space, this course explores themes of life and death, oppression and freedom, isolation and community, agency, and identity. Drawing primarily on Christian sources, readings move from the New Testament through Martin Luther King, Jr., to the contemporary U.S. context where more than 2 million people are incarcerated today.
1 credit.
Not offered 2014-2015.

## RELG 022. Religion and Ecology

This course focuses on how different religious traditions have shaped human beings' fundamental outlook on the environment in ancient and modern times. In turn, it examines how various religious worldviews can aid the development of an earthcentered philosophy of life. The thesis of this course is that the environment crisis, at its core, is a spiritual crisis because it is human beings' deep ecocidal dispositions toward nature that are the cause of the earth's continued degradation. Course topics include ecological thought in Western philosophy, theology, and biblical studies; the role of Asian religious thought in forging an ecological worldview; the value of American nature writings for environmental awareness, including both EuroAmerican and Amerindian literatures; the public policy debates concerning vegetarianism and the antitoxics movement; and the contemporary relevance of ecofeminism, deep ecology,
Neopaganism, and wilderness activism. In addition to writing assignments, there will be occasional contemplative practicums, journaling exercises, and a community-based learning component
Eligible for ENVS credit and Community-Based Learning
1 credit.
Not offered 2014-2015.

RELG 023. Quakers Past and Present
In Swarthmore's 150th anniversary year this course asks: Who are Quakers today? What are the common roots and variations in Quaker belief and practice over time? How did Quakers come to be so well-known for their social activism? This course explores the impact of Quakers in North America from the 1650s to the present as well as the contemporary rapid growth of Quakerism in Africa ( $46 \%$ of Quakers worldwide) and in Latin America. Topics include Quakers and peace work, abolition, women's rights advocacy, prison reform; Quakers and nature; Quakers and education; Quakers and evangelical and Spirit centered traditions; Quakers and hospital and school foundations; and Quaker writings about God, self, and world. In exploring Quaker Traditions this class contributes to students' understanding of the study of Religion and of Christianity. Readings will include the work of George Fox, Margaret Fell, William Penn, John Woolman, Lucretia Mott, Elias Hicks, Elise Boulding, and Rufus Jones, The Friends World Committee on Consultation, and the American Friends Service Committee. Students will have the opportunity to work with the resources of Swarthmore College's Friends Historical Library and Peace Collection.
Eligible for PEAC credit.
1 credit.
Fall 2014. Ross.
RELG 024. From Vodun to Voodoo: African Religions in the Old and New Worlds Is there a kindred spirituality expressed within the ceremonies, beliefs, music and movement of African religions? This course explores the dynamics of African religions throughout the diaspora and the Atlantic world. Using text, art, film, and music, we will look at the interaction of society and religion in the black world, beginning with traditional religions in west and central Africa, examining the impact of slavery and migration, and the dispersal of African religions throughout the Western Hemisphere. The course will focus on the varieties of religious experiences in Africa and their transformations in the Caribbean, Brazil and North America in the religions of Candomblé, Santeria, Conjure, and other New World traditions. At the end of the term, in consultation with the professor, students will create a web-based project in lieu of a final paper.
Study abroad credit may be available.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.

## RELG 025. Black Women and Religion in

 the United StatesThis course is an exploration of the spiritual lives of African American women. We will hear black women's voices in history and in literature, in film, in performance and music, and within diverse periods and contexts, and reflect upon the multidimensionality of religious experience in African American women’s lives. We will also examine the ways that religion has served to empower black women in their personal and collective attempts at the realization of a sacred self. Topics include: African women's religious worlds; women in the black diaspora; African American women in Islam, Christianity, and New World traditions; womanist and feminist thought; and sexuality and spirituality. Readings include works by: Alice Walker; Audre Lorde; bell hooks; Zora Neale Hurston; Patricia Williams, and others. No prerequisites.
Eligible for BLST or GSST credit. 1 credit.
Not offered 2014-2015.

## RELG 026. Performing Judaism: Feasts and Fasts

This course introduces students to Judaism as lived-enacted and embodied-through a critical examination of Jewish holiday and lifecycle rituals. We will study the beginnings of Jewish rituals and chart their development throughout centuries of Jewish history, noting how ritual allows Judaism to retain ancient roots and grow new branches. Our discussions will be informed by contemporary scholarship in performance studies, ritual studies, gender studies, and anthropology. These current approaches will help us compare (and contrast) Jewish rituals with rituals of other religions.
1 credit.
Not offered 2014-2015.

## RELG 027. Radical Jesus

This class is a discussion-intensive, student-led exercise in the critical study of Jesus that centers on analytical reading and writing; contemplative practice; and community action. Beginning with the joyous and terrifying Gospel of Mark and the recently discovered Gospel of Judas, and continuing with the rise of Constantine, Martin Luther's Ninety-Five Theses, and Dostoevsky's "The Grand Inquisitor," this class theologically analyzes Jesus today as the mystic-prophet revolutionary who, alternately, is "the first and last Christian" (Friedrich Nietzsche), "the preacher of Christian atheism" (Dietrich Bonhoeffer), "the face of divine affliction" (Simone Weil), "my great brother" (Martin Buber), "the advocate for the disinherited" (Howard Thurman), "the God within each of us" (Thich Nhat Hanh), "the
prophet of simplicity" (Shane Claiborne), and "the liberating Corn Mother" (George Tinker).
Eligible for INTP credit.
1 credit.
Not offered 2014-2015.
RELG 030. The Power of Images: Icons and Iconoclasts
This course is a cross-cultural, comparative study of the use and critique of sacred images in biblical Judaism; Eastern Christianity; and the Hindu, Buddhist, and Jain traditions of India. Students will explore differing attitudes toward the physical embodiment of divinity, including issues of divine "presence" and "absence"; icons, aniconism, and "idolatry"; and distinctions drawn in some traditions between different types of images and different devotional attitudes toward sacred images, from Yahweh's back and bleeding icons to Jain worship of "absent" saints.
Eligible for ASIA or MDST credit.
1 credit.
Spring 2015. Hopkins.
RELG 031. Religion and Literature: From the Song of Songs to the Hindu Saints
A cross-cultural, comparative study of religious literatures in Jewish, Christian, Islamic, and Hindu traditions. How "secular" love poetry and poetics have both influenced and been influenced by devotional poetry in these traditions, past and present.
Eligible for ASIA or MDST credit.
1 credit.
Not offered 2014-2015.

## RELG 032. Queering God: Feminist and

 Queer TheologyThe God of the Bible and later Jewish and Christian literature is distinctively masculine, definitely male. Or is He? If we can point out places in traditional writings where God is nurturing, forgiving, and loving, does that mean that God is feminine, or female? This course examines feminist and queer writings about God, explores the tensions between feminist and queer theology, and seeks to stretch the limits of gendering-and sexing-the divine. Key themes include: gender; embodiment; masculinity; liberation; sexuality; feminist and queer theory. Eligible for GSST or INTP credit.
1 credit.
Not offered 2014-2015.

## RELG 036. Christian Visions of Self and

 NatureThis course is a thematic introduction to Christianity. Beginning with early Christian writings and moving historically up through the contemporary period, we will explore a wide variety of ideas about God, self, and nature.

Readings will focus on scientific and natural history treatises in dialogue with theological texts. We will explore the writings of Christian naturalists to study the linking of science and religion, and we will investigate a multiplicity of views about Christian understandings of the relationship between the human and non-human world. This class includes a community-based learning component: Students will participate in designing and teaching a mini-course on "Nature and Chester" to students in the nearby community of Chester. Readings include Aristotle (critical for understanding science in the later Middle Ages), Hildegard of Bingen, Roger Bacon, Galileo
Galilei, Charles Darwin, Herman Melville, Ralph
Waldo Emerson, John Muir, Graceanna Lewis, Thomas Berry, Nalini Nadkarni, and Terry Tempest Williams.
1 credit.
Not offered 2014-2015.

## RELG 038. Religion and Film

An introductory course that uses popular film as a primary text/medium to explore fundamental questions in the academic study of religion. In particular, we will be concerned with the ways that religion and religious experience are constituted and defined on film as well as through film viewing. In discussing films from across a range of subjects and genres, we will engage in the work of mythical, theological and ideological criticism, while examining the nature, function, and value of religion and religious experience. We will also consider some of the most significant writers and traditions in the field of Religion and develop the analytical and interpretive skills of the discipline. Scheduled films include The Seventh Seal, The Matrix, Breaking the Waves, Contact, Jacob’s Ladder, The Passion of the Christ, The Rapture, The Apostle, as well as additional student selections. Weekly readings, writing assignments, and evening screening sessions are required. 1 credit.

Spring 2015. Chireau.

## RELG 039. Good and Evil

What do the Western religious traditions have to teach us about the evils of alienation, racism, war, disease, exploitation and the possibility of solidarity, resistance, love, and goodness? This course will be an intense examination of modern philosophical and theological responses to the mysteries of radical evil and radical good.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.

## RELG 041. Religion and Poetry

How is poetry uniquely suited to describing
religious experience and concepts? How and why does poetry draw upon the language and techniques of sacred texts? We will read poetic
texts from various religious traditions alongside modern and contemporary poetry (including Hopkins, Frost, Larkin, Bidart, Komunyakaa, Levin, and Tracy K. Smith) that is nonetheless engaged in religious inquiry of one kind or another. Assignments will include both critical and creative writing in response to these texts. 1 credit.
Not offered 2014-2015.

## RELG 042. Performing Ecstasy Dancing

 the Sacred(See DANC 038)
1 credit.
Spring 2015.

## RELG 043. In Quest of God: The Latin

 American Religious Arena(See LASC 025)
This course counts for distribution in Humanities under the Religion rubric.
1 credit.
Spring 2015. Machuca-Gálvez.

## RELG 053. Gender, Sexuality, and the

## Body in Islamic Discourses

An exploration of sexuality, gender roles, and notions of the body within the Islamic tradition from the formative period of Islam to the present This course will examine the historical development of gendered and patriarchal readings of Islamic legal, historical, and scriptural texts Particular attention will be given to both the premodern and modern strategies employed by women to subvert these exclusionary forms of interpretation and to ensure more egalitarian outcomes for themselves in the public sphere. Topics discussed include female piety, marriage and divorce, motherhood, polygamy, sex and desire, honor and shame, same-sex sexuality, and the role of women in the transmission of knowledge.
Eligible for GSST, ISLM, or MDST credit. 1 credit.
Fall 2014. al-Jamil.

## RELG 054. Power and Authority in Modern

 IslamThis course examines some of the salient issues of concern for Muslims thinkers during the modern period (defined for the purposes of this course as the colonial and post-colonial periods). Beginning with discussion of the impact of colonialism on Islamic discourses, the course moves on to address a number of recurrent themes that have characterized Muslim engagement with modernity. Readings and/or films will include religious, political, and literary works by Muslims in variety of cultural and linguistic settings. Topics to be discussed will include: nationalism and the rise of the modern nation-state, questions of religion and gender, the Israeli-Palestinian conflict,
developments in Islam in the United States and Canada, and case studies of reformist and revivalist movements in the modern nation-states of Iran, Iraq, Afghanistan, Pakistan, and Saudi Arabia. Special attention will be paid to contemporary Muslim responses to feminist critiques, democracy, pluralism, religious violence, extremism, and authoritarianism. Eligible for ISLM credit.
1 credit.
Not offered 2014-2015.
RELG 057. Hebrew for Text Study I (Cross-listed as LING 007)
What does the Bible really say? Have you ever noticed how radically different the Hebrew Bible seems in different translations? If you want to understand the enigma of this text, if you want to experience it through your own eyes, if you want to plumb its depths, appreciate its beauty, confront its challenges, and understand its influence, you must read it in Hebrew. In this course, you will learn the grammar and vocabulary required to experience the Hebrew Bible and ancient Hebrew commentaries in the original language. You will learn to use dictionaries, concordances, and translations to investigate word roots and to authenticate interpretations of the texts. In addition to teaching basic language skills, this course offers students the opportunity for direct encounter with primary biblical, rabbinic, and Jewish liturgical sources. No experience necessary. If you already have some Hebrew competence, contact the instructor for advice.
1 credit.
Spring 2015. Plotkin.

## RELG 059. Hebrew for Text Study II

(Cross-listed as LING 010)
This course is a continuation of Hebrew for Text Study I. Students who have not completed that course will require the permission of the instructor to enroll in this course.
This set of courses teaches the grammar and vocabulary required to experience the Hebrew Bible and ancient Hebrew commentaries in the original language. You will learn to use dictionaries, concordances, and translations to investigate word roots and to authenticate interpretations of the texts. In addition to teaching basic language skills, this course offers students the opportunity for direct encounter with primary biblical, rabbinic, and Jewish liturgical sources. 1 credit.
Fall 2014. Plotkin.

## RELG 067. Judaism and Nature

"We are not obligated to complete the task; neither are we free to abstain from it." (Pirke Avot 2:21)
The task before us is to examine the relationship(s) between Judaism and Nature. We are setting out to
decide—or at least ponder-the following questions (though we will surely encounter more along the way): What does Jewish literature from the Garden of Eden to the present day say about the earth and humanity's relationship with it? Because of the growing awareness about current ecological concerns and crises, Jewish tradition is being mined-or cultivated-for historical precedents that reflect ecologically sound models of Jewish living. How fruitful is this process? To what extent can contemporary Jews rely on tradition to provide such models, and to what extent must Jews today find new ways of bringing humanity and nature together?
1 credit.
Not offered 2014-2015.
RELG 093. Directed Reading: Readings in Classical Jewish Texts
Section 01.
0.5 credit.

Fall 2014 and spring 2015. Plotkin.

## RELG 093. Directed Reading

Section 02.
1 credit.
Fall 2014 and spring 2015. Staff.

## RELG 095. Religion Café: Senior

## Symposium

This seminar is a weekly symposium for senior majors addressing some of the major themes, theories, and methods in the academic study of religion. The seminar will highlight the inherently multidisciplinary nature of religious studies by reading scholars from several disciplines who have influenced certain theoretical and philosophical assumptions and vocabularies in the field. The seminar will examine a number of approaches to religious studies including, but not limited to, those drawn from: post-structuralism, gender studies, critical theory, cognitive science, phenomenology, ethics, pragmatism, social history, and anthropology.
1 credit.
Fall 2014. Kessler.
RELG 096. Thesis
Writing course.
1 credit.
Fall 2014 and spring 2015. Staff.
RELG 097. Thesis
1 credit.
Fall 2014 and spring 2015. Staff.

## Seminars

RELG 100. Holy War, Martyrdom, and Suicide in Christianity, Judaism, and Islam
An examination of the concepts of martyrdom,
holy war, and suicide in Islam, Christianity, and

Judaism. How are "just" war, suicide, martyrdom presented in the sacred texts of these three traditions? How are the different perspectives related to conceptions of death and the afterlife within each tradition? Historically, how have these three traditions idealized and/or valorized the martyr and/or the "just" warrior? In what ways have modern post-colonial political groups and nationalist movements appropriated martyrdom and holy war in our time?
Eligible for ISLM or PEAC credit. 2 credits.
Not offered 2014-2015.

## RELG 101. Jesus in History, Literature,

 and TheologyThis seminar explores depictions of Jesus in narrative, history, theology, and popular culture. We consider Jesus as historical figure, trickster, mother, healer, suffering savior, visionary, embodiment of the Divine, lover, victorious warrior, political liberator, and prophet.
2 credits.
Not offered 2014-2015.
RELG 102. Folk and Popular Religion
This seminar investigates the cultural complexity of the American religious experience through the lens of folk and popular traditions. We will utilize historical, anthropological, and literary approaches to explore folk Catholicism in the United States, local religious celebrations, 19th- and 20th-century popular movements, and folk art and other material representations of religion. Topics include serpent handling in Appalachia; American consumerism as religion; heterodox spiritualities in America; Marian shrines and spirit apparitions; and black Gods and racial folk religions.
2 credits.
Not offered 2014-2015.
RELG 108. Poets, Saints, and Storytellers: The Poetry and Poetics of Devotion in South Asian Religions
A study of the major forms of Hindu religious culture through the lenses of its varied regional and pan-regional literatures, with a focus on the literature of devotion (bhakti), including comparative readings from Buddhist and Islamic traditions of India. The course will focus on both primary texts in translation (religious poetry and prose narratives in epic and medieval Sanskrit, Tamil, Kannada, Bengali, Hindi, Pali, Sinhala, Sindhi, and Urdu) as well as pertinent secondary literature on the poetry and poetics of religious devotion. We will also pay close attention to specific literary forms, genres, and regional styles, as well as the performance (music and dance) and hagiographical traditions that frame the poems of Hindu saint-poets, Buddhist monks, and Muslim mystics. Along with a chronological and geographical focus, the seminar will be organized
around major themes such as popular/vernacular and "elite" traditions; the performance and ritual contexts of religious poetry; the place of the body in religious emotion; love, karma, caste, and family identity; asceticism and eroticism; gender and power; renunciation and family obligations. Eligible for ASIA or MDST credit.
2 credits.
Not offered 2014-2015.
RELG 109. Afro-Atlantic Religions
This seminar explores the historical experiences of the millions of persons who worship African divinities in the West. We will consider the following questions: How were these religions and their communities created? How have they survived? How are African-based traditions perpetuated through ritual, song, dance, drumming, and healing practices? Special attention will be given to Yoruba religion and its New World offspring, Santeria, Voodoo and Candomblé.
Eligible for BLST or LASC credit. 2 credits.
Not offered 2014-2015.

## RELG 110. Religious Belief and Moral

 ActionThe seminar will explore the relationship between religion and morality. Basic moral concepts in Buddhism, Christianity, Judaism, Taoism, Islam and Hinduism will be studied in relationship to their cosmological/theological frameworks and their historical contexts. The course will analyze concepts of virtue and moral reasoning, the religious view of what it means to be a moral person, and the religious evaluation of a just society.
2 credits.
Not offered 2014-2015.
RELG 112. Postmodern Religious Thought
This seminar asks whether religious belief is possible in the absence of a "transcendental signified." Topics include metaphysics and theology, the death of God, female divinity, apophatic mysticism and deconstruction, ethics without foundations, the question of God beyond Being, and analogues to notions of truth in ancient Buddhist thought. Readings include Eckhart, Kierkegaard, Nietzsche, Wittgenstein, Derrida, Nagarjuna, Nishitani, Ricoeur, Marion, Rorty, Loy, Taylor, Panikkar and Vattimo. Eligible for INTP credit. 2 credits. Spring 2015. Wallace.

## RELG 114. Love and Religion

The course will explore the concept of "love" and many of its ramifications in several western traditions and in Hindu traditions of ancient and
contemporary India through a careful reading of both primary and secondary texts. We will focus primarily on the uses of erotic love (along with the body and the "passions") in religious discoursein poetry, commentary, and prose narratives-the many ways passionate love and/or sexuality are used cross-culturally to describe the relationship between the human and the divine. We will also explore other emotions and attitudes evoked by the word love: devotion, affection, friendship,
"charity" (caritas), parental love, and the tensions of these forms of "love" with erotic love. Along with primary texts from the Greek, Jewish, Christian, Islamic, secular troubadour, and Hindu traditions, we will explore the theoretical writings of Martha Nussbaum, Peter Brown, David Halperin, Julia Kristeva, David Biale, Daniel Boyarin, Caroline Walker Bynum, Henry Corbin, Michael Sells, A.K. Ramanujan, Wendy Doniger, David Shulman, and Margaret Trawick. Such a thematic treatment of what we in the Englishspeaking West call "love" brings to the fore many important theoretical questions concerning the cultural construction of emotions, particular love and "ennobling virtues," the erotic life, the body, and religion.
Eligible for ASIA, GSST, or MDST credit. 2 credits.
Fall 2014. Hopkins.

## RELG 119. Islamic Law and Society

A survey of the history of Islamic law and its developments, with particular attention to the ways Islamic legal principles were formed, organized, operated in practice, and changed over time. It will focus on issues in Islamic legal theory, methodology, constitutional law, personal law, and family law that have had the greatest relevance to our contemporary world. This course functions as a basic introduction to the Islamic legal system in its pre-modern and contemporary forms. The course will also provide comparative discussion of the contrasts between Islamic legal theory and positive law and European and American legal and constitutional thought.
Eligible for ISLM or MDST credit.
2 credits.
Spring 2015. al-Jamil.

## RELG 126. The Poetry and Prophesies of

 William BlakeThis course focuses on the lyric poems, extended epic cycles, and illuminated books of one of the most unique poets in English literature, William Blake (1757-1827). We will do a close reading of the poetry and images of the major works of Blake, with the help of text-critical, theoretical and historical perspectives, views of the body, innocence, experience, sexuality, the "margins" of literature; selfhood, self-giving, and "the gift of death" in the late prophetic books. Along with
published books of the designs and extended commentaries on the illuminated books by David Erdman, images, bibliographies, and other resources from the online "Blake Archive" of Eaves and Viscomi will be used for "close reading" of Blake's illuminated books and visionary designs.
2 credits.
Not offered 2014-2015.

## RELG 127. Secrecy and Heresy

This seminar will explore religious literature, bodily practices, and social behaviors associated with the performance of secrecy in various geographical, historical, and political contexts. Religious communities have often employed secrecy as a strategy for the maintenance of group solidarity and religious identity when faced with allegations of heresy. Secrecy functions not only as a means to subvert and undermine the marginalization of religious minorities but as a powerful tool for the creation of more egalitarian possibilities through preservation of privileged knowledge and the presence of internally shared though externally undisclosed social and religious connections. What kinds of religious secrets are meant to be safeguarded? What set of behaviors and strategies are required to keep these "secrets" or sustain adopted personas? Is religious secrecy merely a tactic for ensuring survival in the context of social marginalization and political persecution? What is the relationship between secrecy and suspicion? Is it necessary that what one wishes to conceal is inherently negative, pernicious or even heretical?
Eligible for ISLM or MDST credit. 2 credits.
Not offered 2014-2015.
RELG 128. Sex, Gender, and the Bible
The first two chapters of the biblical book of Genesis offer two very different ancient accounts of the creation of humanity and the construction of gender. The rest of the book of Genesis offers a unique portrayal of family dynamics, drama and dysfunction, full of complex and compelling narratives where gender is constantly negotiated and renegotiated. In this class, we will engage in close readings of primary biblical sources and contemporary feminist and queer scholarship about these texts, as we explore what the first book of the Bible says about God, gender, power, sexuality, and "family values."
Eligible for GSST, INTP, or MDST credit. 2 credits.
Not offered 2014-2015.

## RELG 180. Senior Honors Thesis

1 credit.
Fall 2014. Staff.

## Religion

RELG 180S. Senior Honors Thesis
Writing course.
1 credit.
Spring 2015. Staff.
RELG 199. Senior Honors Study 0.5 credit.

Spring 2015. Staff.

# Sociology and Anthropology 

JOY CHARLTON, Professor of Sociology ${ }^{4}$
MICHAEL L. MULLAN, Professor of Sociology
BRAULIO MUNOZ, Professor of Sociology
SARAH WILLIE-LEBRETON, Professor of Sociology, Chair
FARHA N. GHANNAM, Associate Professor of Anthropology
LEE A. SMITHEY, Associate Professor of Sociology
CHRISTOPHER FRAGA, Assistant Professor of Anthropology
MAYA NADKARNI, Assistant Professor of Anthropology
MICHAEL REAY, Assistant Professor of Sociology
CHRISTINE SCHUETZE, Assistant Professor of Anthropology ${ }^{3}$
NINA JOHNSON, Visiting Assistant Professor of Sociology and Black Studies, Faculty Coordinator of Community Based Learning - Lang Center for Civic and Social Responsibility
STEPHEN VISCELLI, Visiting Assistant Professor of Sociology
ROSE MAIO, Administrative Coordinator
${ }^{3}$ Absent on leave, 2014-2015.
${ }^{4}$ Absent on administrative leave, 2014-2015.

The Sociology and Anthropology Department provides students with intellectual tools for understanding contemporary and historical social issues, such as globalization, nationalism, racism, sexism, embodiment, and the complex layering of social inequalities in everyday life. These two disciplines approach the study of social life from different avenues, each bringing a set of separate and overlapping analytical and research tools to intellectual tasks that are complementary and synergistic. Our students seek knowledge about societies of the world and the social dynamics within them. To that end, our majors each conduct independent projects based on primary research and/or fieldwork during their senior year.
Sociology and anthropology analyze experiences at the level of the individual or the group and connect them to larger social dynamics. The disciplines illustrate how matters that are often perceived as "private troubles" are actually consequences of cultural categories and social structures, including those that appear and feel natural and inevitable. Among the goals of sociology and anthropology are to acquire knowledge about different groups, cultures, and to engage critically with the complexities of social life.
The Sociology and Anthropology Department offers a course major, honors major and minor, and several special majors, but no course minor.

## The Academic Program

## Overview of the Curriculum

Course majors are required to take eight units of work in the department; of the eight, five are assigned. Assigned courses include, "Introduction to Anthropology and Sociology," (at least) one designated theory course, (at least) one designated methods course and a two-credit senior thesis.

## Introduction to Anthropology and Sociology

This course offers a foundational introduction to the department's two fields; anthropology and sociology. Taught by both a sociologist and an anthropologist, it provides a solid background to ongoing debates in the study of culture and society, highlighting the distinct but complementary theories and methods of the two disciplines. Throughout the course, we will examine fundamental theories and concepts of both sociologists and cultural anthropologists and how these have changed over time.

## Course Major

Applicants for the major normally have completed at least two courses in the department. Courses numbered SOAN 001 to 020 serve as points of entry for students wishing to begin work in the department and normally serve as prerequisites to higher-level work in the department
(SOAN 021-099). (Some higher courses may, however, with permission of the instructor, be taken without prerequisite.) Seminars are numbered SOAN 100 to 199. For current seminar listings, consult the Web site at http://www.swarthmore.edu/socanth, or contact the department administrative coordinator. The applicant's performance in department courses is discussed during the application review process; we also consider carefully an applicant's potential for carrying out the department's senior thesis requirement. Please note that the Sociology and Anthropology Department does not offer a course minor.
Note: Course labeling within each of the three tiers of offerings-introductory courses
(ANTH/SOCI/SOAN 001-019), regular courses (ANTH/SOCI/SOAN 020-099) and seminars (ANTH/SOCI/SOAN 100-199)—reflect internal departmental codes rather than levels of
advancement or particular research areas. Consult the listings for prerequisites particular to each course.)

## Requirements for the Graduation Class of

 2015 and 2015Course majors in the department are required to take eight units of work in the department; of the eight, five are assigned. Assigned courses include the course, "Introduction to Anthropology and Sociology," (at least) one designated theory course, (at least) one designated methods course and a two-credit senior thesis.

## Culminating Exercise/Comprehensive

 ExaminationIn order to graduate, all course majors must complete a two-credit senior thesis.

## Acceptance Criteria

For course majors, the department usually looks for at least a C average overall and at least a C average for work in the department.

## Course Minor

The Sociology and Anthropology Department does not offer a course minor.

## Honors Major

## Requirements

Students seeking to do an honors major are required to complete at least nine ANTH or SOCI or SOAN credits, five of which are assigned: "Introduction to Anthropology and Sociology," (at least) one designated theory course, (at least) one designated methods course and a two-credit honors senior thesis. In addition, two - 2 credit preparations may be seminars, or, with permission, a course plus attachment, or paired upper-level courses, or off campus study.
Honors preparations include:

1. Three honors preparations in Sociology and Anthropology, of which one must be a double credit thesis. The other two may be a seminar, course plus attachment, paired upper level courses, or in special circumstances, off campus study. The latter three forms of preparation must have the advance approval of the supervising faculty member and of the department.
2. For thesis preparations: the thesis will be sent (the last day of April in your senior year) to and read by an external examiner, who will also administer an oral exam. These will be the bases for the examiner's evaluation of the thesis.
3. For non-thesis preparations: evaluations will be in the form of written assignments or examinations given by the external examiners and completed by honors students at the end of
the senior year. External examiners will also administer oral examinations.

## Acceptance Criteria

Applicants for the Honors Program (majors and minors) will usually be expected to have completed at least two courses in the department outside the honors preparations, to have at least a $B$ average overall and grades of at least B for work taken in the department.
The department will evaluate the progress of students writing Senior Honor Thesis before the end of November. If progress is deemed inadequate, the student will be asked to withdraw from honors.

## Honors Preparation with Attachments

Students wishing to prepare for honors through a course plus an attachment must obtain permission from the instructor. Honors preparation will consist of the following materials: a) the syllabus for the course. b) the syllabus for the attachment, and c) written materials as requested by the instructor. The syllabus for the class and for the attachment, plus the written materials, if any will be forwarded to the external examiner. The external examiner will be asked to prepare a written examination based on the material as a unified whole. An oral examination will follow.

## Honors and Off-Campus Study

There are a number of ways in which study abroad can be either integral or complementary to a major in sociology and anthropology. These include, but are not restricted to, the development of an honors preparation from work abroad and preparation for the senior thesis. To explore study abroad possibilities, students are required to consult with the chair of the department.
Students who contemplate basing an honors preparation on off-campus study work must seek the department's conditional approval for this, before undertaking the off-campus study. Upon returning from abroad, students must request departmental approval of the honors preparation based on work done abroad. To do this, students must submit to the department all materials done abroad, including syllabi and written work, which are intended to be part of the honors preparation. Upon review of these materials, the department will notify the student as to whether or not the proposed honors preparation is approved. Students should expect approval of only one honors preparation which includes off-campus study.

## Honors Minor

Students seeking to do an Honors minor normally complete at least five ANTH or SOCI or SOAN credits, three of which are assigned: "Introduction to Anthropology and Sociology," (at least) one designated theory course, (at least) one designated methods course.

Minors in the Honors Program must complete one - two credit preparation: a seminar or a thesis, a class with an attachment, or with permission paired courses.
The Honors Minor preparations include:

1. On honors preparation in SOAN.
2. Depending on the format of the presentation, the examiner will receive the materials described in (2) and (3), above. The honors minor student's work for this preparation will be similar to the honors major student's work.

## Acceptance Criteria

Applicants for the Honors Program (majors and minors) will usually be expected to have completed at least two courses in the department outside the honors preparations, to have at least a $B$ average overall and grades of at least B for work taken in the department.
The department will evaluate the progress of students writing Senior Honor Thesis before the end of November. If progress is deemed inadequate, the student will be asked to withdraw from Honors.

## Special Major

Most Special Majors need to be anchored in a home department. When a student anchors their special major in the department of Sociology and Anthropology they must fulfill the requirements below. In many cases, the best option is pursuing a course major, since the department is not required to approve a Special Major application.
Requirements

1. In SOAN, we normally require five SOAN credits to be a home department. One credit must be "Introduction to Anthropology and Sociology," (at least) one designated theory course, (at least) one designated methods course and a two-credit senior thesis.
2. Four credits from outside of the department must be included as part of the special major.
3 . In putting together the special major, it is advisable that the student only designate ten courses as part of the major. That way there will be no problems with the 20-course rule.

## Culminating Exercise/Comprehensive Examination

In order to graduate, all special majors housed in the Sociology and Anthropology Department must complete a two-credit thesis.

## Acceptance Criteria

The department usually looks for at least a C average overall and at least a $C$ average for work in the department.

## Thesis / Culminating Exercise

The 2-credit senior thesis requirement, normally completed in the fall and spring semesters of the senior year, includes the Thesis Writers Masters Class and a thesis tutorial in which the student works closely with a faculty adviser.

## Application Process Notes for the Major or the Minor

Students intending to major or minor in sociology/anthropology must submit a Sophomore Plan application to the department office.

## Advanced Placement/International Baccalaureate Credit

Considered on a case-by-case basis for majors and minors.

## Transfer Credit

Considered on a case-by-case basis for majors and minors.

## Off-Campus Study

Because of its strong cross-cultural and transnational orientations, the department encourages students to study abroad. For many, study abroad provides a basis for their senior thesis project (see the department's homepage for a listing of students' projects). The senior thesis project allows students to develop their research interests through working directly with a faculty member. This combination of breadth of knowledge, global understanding, and independent research make sociology and anthropology an ideal liberal arts major.

## Research and Service-Learning Opportunities

Students have the opportunity to conduct original research supervised by faculty-whose approaches run the gamut from ethnography to textual analysis to survey research. Students also explore the historical development of sociology and anthropology. Research design, qualitative research, and statistical analysis are an important component of many academic programs, enabling students to undertake rigorous research projects and best analyze, interpret, and communicate their findings. The curriculum also provides opportunities for students to learn techniques to creatively convey their work through ethnography, photography and documentary films.
Experiential learning is an important component of much work in sociology and anthropology. Our department strongly supports participation in study abroad as well as work in the field. For many students, these experiences challenge them to ask questions that eventually serve as foundation of their senior thesis project. Summer funding
opportunities exist and are particularly relevant for juniors planning research towards their senior thesis projects. Study aboard and fieldwork provide an opportunity for students to develop contacts and gain rapport within their eventual research setting. Funding is available from the department and the College to support students in their pursuit of these experiences.
The Sociology and Anthropology Department emphasizes independent research. We prepare students to conduct research on primary and secondary documents as well as to conduct interviews, engage in participant observation, organize focus groups, administer surveys, and produce ethnographic films. By senior year, our students are ready to write a senior thesis that is not only based on library research but also in realworld experience. Recent student research projects have focused on issues such as alternative development programs in Latin America, immigration policies in the U.S., gender and health in Africa, and online activism. Independent research conducted by our students is one feature that consistently distinguishes them when they are pursuing jobs, fellowships, or graduate school admission.

## Summer Opportunities

Grants from a variety of college-administered sources are available to support research by students during the summer. Please look at our website for information about our extensive and generous funds for travel, research, internships, and faculty/student collaboration.
We encourage our juniors to explore these possibilities. Each year for the past several years, some of our majors have been awarded these grants and, in most cases, the summer research done under their auspices has been the basis for fine senior theses.

## Teacher Certification

Each year, in conjunction with the Educational Studies Department, a number of our majors seek teacher certification. Students contemplating teacher certification would normally schedule their program in a semester which does not conflict with their senior thesis. Such programs should be developed in close consultation with advisers in the Educational Studies Department.

## Anthropology Courses

Note: Course labeling within each of the three tiers of offerings-introductory courses
(ANTH 001-019), regular courses
(ANTH 020-099) and seminars
(ANTH 100-199)—reflect internal departmental codes rather than levels of advancement or particular research areas. Please consult the listings for prerequisites particular to each course.

## ANTH 001D. First-Year Seminar:

 CountercultureIf culture is a battlefield, nowhere was this expressed more clearly than in the countercultural tumult that beset North American civil society during the Cold War. This First-Year Seminar will analyze the dynamics of cultural friction by bringing some of anthropology's key concepts and comparative insights to bear on the countercultural campaigns that coalesced during the second half of the twentieth century. In so doing, our broader project will be to ask what countercultural friction can teach us about the machinations of power in the contemporary world.

## 1 credit.

Fall 2014. Fraga.

## ANTH 002D. First-Year Seminar: Culture

 and GenderThe goal of this seminar is to dismantle commonplace assumptions about gender, sexuality, and sexual difference. It brings key texts in gender theory (Foucault, Butler, and others) into conversation with anthropological studies that respond to, problematize, or advance these theoretical claims. Our focus is the gendered body as the site of power and resistance, in contexts that range from past empires to present-day inequalities, and from technologies of reproduction to drag performances of femininity.
Theory course.
Eligible for GSST credit.
1 credit.
Fall 2014. Nadkarni.
ANTH 002F. Anthropology of Childhood and the Family
The experience of being a child would appear universal, and yet the construction of childhood varies greatly across cultures and throughout history. This course examines childhood and child-rearing in a number of ethnographic contexts, investigating children as both social actors and as the target of specific cultural ambitions and anxieties. Topics include new forms of family and reproduction, children as objects (and agents) of violence, and representations of childhood in human rights discourse, among others.
Theory course.
Eligible for GSST credit.
1 credit.
Spring 2015. Nadkarni.
ANTH 003F. Culture and Religion in Africa In this course, we will explore the powerful interplay between religion, politics, and culture in Africa. Students engage in exploration of a wide range of topics designed to provide a historical and geographical overview of religious practices in different regions of sub-Saharan Africa. In our
readings and in class discussions, we will pay close attention to how worldviews and systems of meaning shape actions and attitudes, and focus our anthropological eye on the practices of daily life: the material conditions and day-to-day routines of
living. Throughout the course, we will consider the usefulness of the term "religion" itself, as we examine how daily practices that emerge in and through religious practices in Africa transcend
Western distinctions between "religion,"
"politics," "economics," and "society."
Writing course.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015. Schuetze.

## ANTH 003G. First-Year Seminar: <br> Development and its Discontents

In this course, our goal will be to gain a new perspective on an often-unquestioned social "good": that of international economic development, including foreign aid to countries in the global south. This course will provide students with an introduction to the origin and evolution of ideas about development, and will encourage them to examine major theories and approaches to development from classical modernization theories to world-systems theories. Students will gain insight into how ideas of development fit into larger global dynamics of power and politics and how, contrary to professed goals, the practices of international development have often perpetuated poverty and widened the gap between rich and poor. During the course, we will investigate these issues through an array of texts that address different audiences including a novel, academic books and journals, film, popular writings and ethnographic monographs.
Theory course and writing course.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015. Schuetze.
ANTH 009C. Cultures of the Middle East Looking at ethnographic texts, films, and literature from different parts of the region, this class examines the complexity and richness of culture and life in the Middle East. The topics we will cover include orientalism, colonization, gender, ethnicity, tribalism, nationalism, migration, nomadism, and religious beliefs. We will also analyze the local, national, and global forces that are reshaping daily practices and cultural identities in various Middle Eastern countries.
Eligible for ISLM credit.
Writing course.
1 credit.
Spring 2015. Ghannam.
ANTH 020J. Dance and Diaspora (See DANCE 025A)

Theory course and writing course.
1 credit.
Fall 2014. Chakravorty.

## ANTH 021D. Anthropology of Art and

Aesthetics
This course will familiarize students with the key debates that have shaped the anthropological study of art over the course of the 20th century. After reviewing Franz Boas’s path-breaking studies on Native American design motifs, we will go on to survey studies of indigenous artistic traditions, the controversies ignited by metropolitan exhibitions of primitivist modern art, and theoretical disputes over aesthetic paradigms in the anthropology of art, before posing the question of how anthropology can illuminate and engage contemporary art worlds.
1 credit.
Fall 2014. Fraga.

## ANTH 023C. Anthropological Perspectives

 on ConservationConservation of biodiversity through the creation of national parks is an idea and a practice that began in the U.S. with the creation of Yellowstone in 1872. In this course, we will examine the ideas behind the initial creation of national parks and explore the global spread of these ideas through the historical and contemporary creation of parks in other countries. As we examine the origin of the idea for parks, we will also consider the human costs that have been associated with their creation. Ultimately, the class offers a critical exploration of theories and themes related to nature, political economy, and culture-themes that fundamentally underlie the relationship between society and environment.
Theory course.
Eligible for ENVS or BLST credit.
1 credit.
Not offered 2014-2015.

## ANTH 029B. Ethnography: Theory and

 PracticeThis class maps anthropological theories and methods through reading and critically analyzing the discipline's flagship genre, ethnography. We work historically by reading classical texts that exemplify different approaches (such as functionalism, structuralism, symbolic anthropology, and reflexive anthropology) used to analyze culture and social structure. We address questions such as: How did Malinowski understand ethnography? How does this understanding compare to more recent views of anthropologists such as Geertz? How did the meaning of fieldwork change over time? We pay special attention to the politics of representation and the anthropologists' continuous struggle to find new ways to write about culture.

Theory and methods course.
Writing course.
1 credit.
Not offered 2014-2015.

## ANTH 032D. Mass Media and

## Anthropology

This intermediate course explores the anthropology of modernity and the
mass-mediation of modern forms of knowledge. It examines how the emergence of mass media has produced new kinds of subjects and social relations: from novel images of nationhood to mass experiences of crime,
war, and violence. Along the way, the course also asks the impact of new media technologies on how anthropology itself imagines identity, community, and locality.
Theory course.
Eligible for FMST and INTP credit.
1 credit.
Not offered 2014-2015.

## ANTH 039B. Globalization and Culture

What is globalization? Is globalization "cultural imperialism," Westernization, Americanization, or McDonaldization? Our class will examine such questions and critically analyze how global flows (of goods, capital, labor, information, and people) are shaping cultural practices and identities. We will study recent theories of globalization and transnationalism and read various ethnographic studies of how global processes are articulated and resisted in various cultural settings.
Theory course and writing course.
1 credit.
Not offered 2014-2015. Ghannam.
ANTH 040B. Language, Culture, and

## Society

(See LING 025)
Prerequisite: At least one linguistics course. 1 credit.
Not offered 2014-2015. Staff.

## ANTH 040J. Social Movements in Latin

 America: Gender \& Queer Perspective Since the 1980s, the contemporary forces of neoliberalism, re-democratization and globalization have profoundly reshaped the societies of Latin America.Against this backdrop of change, people who have long been politically marginalized-indigenous groups, women, peasants, gays, blacks-have struggled to assert their rights and make their voices heard.
In this course we will focus on gender and queer identities in Latin America through a social movement lens.
Eligible for LASC credit.

1 credit.
Spring 2015. Machuca-Galvez.
ANTH 041B. Visions of Latin America
This course is premised on the idea that the forms of a population's political domination depend upon how that population is envisioned-i.e., upon the visual techniques of knowledge/power that make possible the orderly administration of society, as well as upon the cultural imaginaries that shape social desires and fears. Beginning with historical accounts of the cataclysmic encounter between the Spanish Empire and the peoples of the New World, this course will survey the visual technologies through which the Holy Roman Empire and the later Latin American republics attended to their subjects, as well as the colonial and post-colonial fantasies that have haunted Latin America over the past five hundred years.
Eligible for LASC credit.
1 credit.
Not offered 2014-2015.
ANTH 041C. Visual Cultures of Mexican and Aztlan
Surveying the visual signifiers with which creole, Mexican, and Chican@ identities have been forged, this course will track a broad sample of figures through the historical and political contexts of New Spain, modern Mexico and occupied Aztlán. We will ground our study of these icons in the social context of their production and circulation, and will critically examine the relationships between image-making and state-making, and between citizenship, national/ethnic identity, and community building. Visual materials for the semester will include a robust sample of religious and secular art, cinema, and print media.
Eligible for LASC credit.
1 credit.
Spring 2015. Fraga.

## ANTH 042D. Political Anthropology

This course examines the anthropology of rights, justice, and the state. Its focus is citizenship: as both an ideal of formal equality and a lived practice of political belonging that reflects and reproduces social inequity. The first half investigates how citizenship intersects with forms of difference such as race, class, gender, sexuality, and ability. Ethnographic examples include debates about the legal recognition of gay marriage, spatial struggles over the right to the city, and disability activism and the biopolitics of citizenship. The second half examines how new forms of mobility of people, ideas, and capital challenge the nation-state as the site of political membership. What is the state's responsibility towards its "others": from transnational entrepreneurs to illegal migrant workers, and from

## Sociology and Anthropology

political refugees to the detainees at Guantanamo Bay?
Theory course.
1 credit.
Fall 2014. Nadkarni.
ANTH 043E. Culture, Health, Illness
People in all societies encounter and manage sickness. Yet, there are diverse and unique approaches to understanding and managing health and disease. The human experience of sickness entails a complex interplay between biological, socio-economic and cultural factors. This course offers an introduction to medical anthropology, and draws upon social, cultural, biological, and linguistic anthropology to better understand those factors which influence health and well being (broadly defined), the experience and distribution of illness, the prevention and treatment of sickness, healing processes, the social relations of therapy management, and the cultural importance and use of pluralistic medical systems. Topics covered include how beliefs about health, disease and the body are constructed and transmitted, how healers are chosen and trained, social disparities in health and illness, and the importance of narrative and performance in the effectiveness of healing practices. Finally, we will consider the ways in which medical anthropology can shed light upon important contemporary medical and social concerns.
Theory course.
1 credit.
Not offered 2014-2015.

## ANTH 043F. Culture, Power, and Religion

 in AfricaIn this course, we will explore the powerful interplay between religion, politics, and culture in Africa. Students engage in exploration of a wide range of topics designed to provide a historical and geographical overview of religious practices in different regions of sub-Saharan Africa. In our readings and in class discussions, we will pay close attention to how worldviews and systems of meaning shape actions and attitudes, and explore how differing systems of meaning have shaped relationships of power in both historical and contemporary contexts. Throughout the course, we will consider the usefulness of the concept
"religion" itself, as we examine how daily practices that emerge in and through religious practices in Africa transcend Western distinctions between "religion," "politics," "economics," and "society."
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.

## ANTH 049B. Comparative Perspectives on

 the BodyThis class explores how different societies regulate, discipline, and shape the human body. In the first part, we examine theories of the body and how they have evolved over time. In the second part, we focus on in-depth ethnographic cases and compare diverse cultural practices that range from the seemingly traditional practices, such as circumcision, foot binding, and veiling to the currently fashionable, such as piercing, tattooing, dieting, and plastic surgery. By comparing body modification through space and time, we ask questions such as: Is contemporary anorexia similar to wearing the corset during the 19th century? Is female circumcision different from breast implants? Furthermore, we investigate how embodiment shapes personal and collective identities (especially gender identities) and vice versa
Eligible for GSST or INTP credit.
1 credit.
Spring 2015. Ghannam.

## ANTH 051B. Drugs and Governance in the

 AmericasPsychoactive substances offer us an especially powerful prism with which to analyze the techniques of governance that have characterized the political regimes of the Americas since colonization. Hemispheric in scope, this course will trace an anthropological history of the uses and abuses of such diverse substances as chocolate and tobacco, coffee and cocaine, peyote and prescription pharmaceuticals, thereby preparing students to disentangle the multiple forces that over determine contemporary discourses of drugs, intoxication, and their respective places in socia life.
1 credit.
Not offered 2014-2015. Fraga.

## ANTH 072C. Memory, History, Nation

How do national communities remember-and forget? What roles do commemoration and amnesia play in constructing, maintaining, or challenging national and collective identities? This course considers memory and its pathologies as a central problematic for the nation-state. It reads theory and ethnography against each other to explore the politics and aesthetics of national memory across numerous sites and contexts, attentive to both the collectivities such commemorations inspire and their points of resistance or failure.
Eligible for INTP credit.
Theory course.
1 credit.
Not offered 2014-2015.

## ANTH 072D. Visual Anthropology

This course introduces students to the history, theory, and practice of visual anthropology. Topics include the intertwined histories of colonial
photography and anthropology, how
anthropologists use visual ethnographic methods as tools of cultural analysis, and how indigenous groups and activists use contemporary visual
technologies to gain visibility and to remake their social worlds. The course will include a series of
film screenings, as well as a small production
component.
Theory and methods course.
Eligible for FMST credit.
1 credit.
Spring 2015. Nadkarni.

## ANTH 077B. The Visual Anthropology of Performance <br> (See DANC 077B) <br> Theory course. <br> 1 credit. <br> Not offered 2014-2015.

ANTH 080B. Anthropological Linguistics: Endangered Languages
(See LING 120)
Theory course.
1 credit.
Fall 2014. Harrison.

## ANTH 095. Independent Study

All students wishing to do independent work must have the advance consent of the department and of an instructor who agrees to supervise the proposed project. Two options exist for students wishing to get credit for independent work.
Option 1 - consists of individual or group directed reading and study in fields of special interest to the students not dealt with in the regular course offerings.
Option 2 - credit may be received for practical work in which direct experience lends itself to intellectual analysis and is likely to contribute to a student's progress in regular course work. Students must demonstrate to the instructor and the department a basis for the work in previous academic study. Students will normally be required to examine pertinent literature and produce a written report to receive credit. 0.5 or 1 credit.

Fall 2014 and spring 2015. Staff.

## Anthropology Seminars

ANTH 112. Cities, Spaces, and Power
This seminar explores recent interdisciplinary insights to the analysis of spatial practices, power relationships, and urban forms. In addition, we read ethnographies and novels and watch films to
explore questions such as: How is space socially constructed? What is the relationship between space and power? How is this relationship embedded in urban forms under projects of modernity and postmodernity? How do the ordinary practitioners of the city resist and transform these forms? Our discussion will pay special attention to issues related to racism and segregation, ethnic enclaves, urban danger, gendered spaces, colonial urbanism, and the "global" city.
Theory course.
2 credits.
Not offered 2014-2015.
ANTH 116. Anthropology of Capitalism In the wake of the global financial system's recent paroxysms, it is more urgent than ever that students of anthropology be equipped to understand the social and cultural dimensions of contemporary capitalism. This seminar will therefore examine the defining features of the current capitalist milieu through the lens of comparative ethnography. Combining classic theoretical readings on the structure and development of capitalism with concrete ethnographic studies, we will analyze a broad sample of the many guises under which capital travels across political, economic, and cultural borders. These analyses will then enable us to approach the more pressing question of how individual actors can and do contribute to the transformation of the global cultural economy.
Theory course.
2 credits.
Not offered 2014-2015.

## ANTH 122. Urban Ethnographies

As key players in the global economy, cities are becoming the focus of a growing number of studies that show how urban life is shaped by the complex interplay of global, national, and local processes. In this class, we look at urban ethnographies (texts and films) through space and examine how the representation of the city has changed over time. These ethnographies are conducted in Western cities such as New York, London, and Paris as well as cities in other parts of the world such as Cairo, Casablanca, Bombay, São Paolo, and Shanghai. We read these ethnographies to (1) discuss different techniques and approaches used to study urban cultures and identities, (2) examine how the collection of data relates to anthropological theories and methods, and (3) explore how research in cities shapes the field of cultural anthropology. In our discussions, we also explore important urban problems such as poverty, gangs, violence, and homelessness.
2 credits.
Not offered 2014-2015.

ANTH 123. Culture, Power, Islam
This seminar will be an interdisciplinary investigation into the shifting manners by which Islam is multiply understood as a creatively mystical force, a canonically organized religion, a political platform, a particular approach to economic investment, and a secular but powerful identity put forth in interethnic conflicts, to name only a handful of incarnations. Though wide ranging in our theoretical perspective, a deeply ethnographic approach to the lived experience of Islam in a number of cultural settings guides this study.
Eligible for ISLM credit.
2 credits.
Fall 2014. Ghannam.

## ANTH 133. Anthropology of Biomedicine

 In this seminar we explore biomedicine from an anthropological perspective, exploring the entanglement of bodies with history, environment, culture, and power. We begin the course with a focus on the historical emergence of biomedical technologies and their related discourses and practices and then move into contemporary contexts of their use and circulation. Throughout, we focus on the ways in which the development, use, and distribution of biomedical technologies and discourses are influenced by prevailing medical systems, political interests, and cultural norms. Topics to be covered include biomedicine as technology, medical categorization and ideas of the normal, ethics and moral boundaries, the space of the clinic, the circulation of pharmaceuticals, and health and inequality.2 credits.
Not offered 2014-2015.

## Sociology Courses

Note: Course labeling within each of the three tiers of offerings-introductory courses
(SOCI 001-019), regular courses (SOCI 020-099) and seminars (SOCI 100-199)—reflect internal departmental codes rather than levels of advancement or particular research areas. Please consult the listings for prerequisites particular to each course.

## SOCI 004B. First-Year Seminar: <br> Introduction to Contemporary Social Thought

A general introduction to major theoretical developments in the study of social life since the 19th century. Selected readings will be drawn from the work of such modern social theorists as Marx, Weber, Durkheim, Freud, and Simmel. Readings from contemporary authors such as Geertz, Goffman, Adorno, and Arendt will also be included. These developments will be studied against the background of the sociophilosophical climate of the 19th century.

Theory course.
1 credit.
Fall 2014 Muñoz.

## SOCI 006F. Rich and Poor

The U.S. has experienced a remarkable rise in economic inequality since the 1970s. What is driving this trend? Is the U.S. still the land of opportunity or is it a society of haves and have-nots largely determined at birth? This course will address these and other pressing questions about economic inequality.
Theory course.
1 credit.
Spring 2015. Viscelli.

## SOCI 006G. Social Problems and Social

 PolicyThis course uses theories of class, race, and social policy to analyze the concept of the "underclass" over the past four decades. The class focuses on sociological thinking about the effects of public policies concerning labor markets, housing, incarceration, and the war on drugs.
1 credit.
Not offered 2014-2015.

## SOCI 006H. Down But Not Out: The Social

 Problems of PhiladelphiaFor decades the City of Philadelphia has been plagued by problems of population loss, violent crime, poverty, racial segregation, failing public schools and environmental pollution. While serious problems remain, parts of Philadelphia are experiencing a remarkable rebirth and the city has reversed its decades-long trend of population loss. This class will look at the historical development of economic and educational inequality and an effort to address them in South Philadelphia, a largely poor and working-class area undergoing some of the most dramatic social change in the city. For over a century South Philly has been among the city's most diverse and culturally vibrant areas and a major gateway for immigrants from across the globe-most recently from several Asian countries and the Puebla region of Mexico. The class will travel to South Philly and see the neighborhood in walking tours. The course has a significant community-based learning component in which students will contribute to an on-going project at one of the city's most diverse public schools: Andrew Jackson Elementary. Jackson's principal has developed a vision for making the school a model of how a green curriculum can be a low-cost vehicle for under-resourced urban schools to achieve academic excellence. We will help build a rooftop garden where Jackson's students will learn the science of environmental sustainability by growing their own food. Students will also work to develop the next phase of Jackson becoming a model green school by designing a science greenhouse foe aquaponic and

## Sociology and Anthropology

hydroponic vegetable growing systems. Every aspect of this greenhouse will showcase principles of energy efficiency and foster learning of science and math. The goal is to create a classroom that demonstrates daily the potential of passive and active solar energy technologies, allowing Jackson's students to explore first-hand a critical question: which one is really the expensive "alternative" energy source: solar or digging up carbon fuels and burning them?
Note: Students who want to enroll/get credit for this as Educational Studies will need to have taken EDUC 014

1 credit.
Fall 2014. Viscelli.

## SOCI 007B. Introduction to Race and

 Ethnicity in the United StatesThis course uses classic ethnographies, current race theory, and journalistic accounts to examine the experiences of selected ethnic groups in the
U.S. and to investigate theories of racism, the meaning of race and ethnicity in the 20th century, and contemporary racialized public debates over affirmative action, welfare, and English-only policies.
Theory course.
Eligible for BLST credit.
1 credit.
Spring 2015. Johnson.

## SOCI 007C. Sociology Through African

## American Women's Writing

Interrogating the explicit and implicit claims that black women writers make in relation to work by social scientists, we will read texts closely for literary appreciation, sociological significance, and personal relevance, examining especially issues that revolve around race, gender, and class. Of special interest will be where authors position their characters vis-à-vis white supremacy, patriarchy, capitalism, and the U.S.
Eligible for BLST or GSST credit.
1 credit.
Not offered 2014-2015.

## SOCI 008F. First-Year Seminar:

Technology and Humanity
It sometimes seems as if science and technology tend to replace communal understanding and human relationships. Historical and social scientific investigations suggest this is an illusion however; technology has always been shaped by and embedded in personal connections, group struggles, and cultural understandings. The class will explore this using examples such as the development of modern industry, the construction of railroads, the risks of nuclear catastrophe, the digital divide, and the development of online identities.

1 credit.
Not offered 2014-2015.

## SOCI 008G. First-Year Seminar: Science in

 Public LifeThis class looks at how science contributes to the development of new technologies and practices which impact the environment, public health, daily life, and warfare. In order to help understand these patterns of the 'co-construction' of science and society, the course also looks at science education, the media portrayal of science and technology, and the role of scientific expertise in public policy and decision-making.
1 credit.
Spring 2015. Reay.

## SOCI 009E. First-Year Seminar: Social

 Action and Social ResponsibilityWe will explore the conditions and consequences of various types of effort to bring about positive social change, using theory and case studies from sociology and anthropology; class visits from individuals working directly with different strategies for social change; and off-campus opportunities for students to learn from groups and individuals dedicated to activism and service. 1 credit.
Not offered 2015-2015.

## SOCI 010C. The Social Development of

 SportThe course is designed as an introduction to the subfield of sport sociology. The primary focus of the course will rest on the developmental history of the institution of Western sport and the principal analytical frameworks constructed to explain its origins. Although the historical and theoretical material is centered on European developments, contemporary issues and debates on the relationship of gender, race, and ethnicity to sport will concentrate on American society. Readings will be drawn from the work of sociologists and historians working directly in sport studies.
1 credit.
Not offered 2014-2015
SOCI 010H. The Tribal Identity of Sport: Nationalism, Ethnicity, and the Rise of Sport in the Modern Era
This course focuses on the development of modern sport of multiple levels of analysis. First, it is a primer on the descriptive facts of sport development in the late 19th and early 20th centuries and the social theory employed to study it. Second, it is more detailed at the connections between nationalism and sport, the nexus of national, communal association with sporting achievement as a social mechanism in the construction of group identity.

## Sociology and Anthropology

1 credit.
Not offered 2014-2015.

## SOCI 010J. War, Sport, and the

 Construction of Masculine IdentityThe course will concentrate on the themes of sport and war and the historical construction of male identity. Our culturally endorsed ideals of manhood are related to tests of skill and physical exertion. The influence of the sport/warrior ethic on modern sensibilities will take us to
19th-century England and the U.S. as these nations grappled with the meaning of sport and war as markers of the adult male. Contemporary works that challenge stock impressions of masculinity will be read
Eligible for GSST or PEAC credit.
1 credit.
Not offered 2014-2015.
SOCI 010S. Diasporic Ethnicities: Mass Emigration 1860-1924
In this course, we will explore theories and traditions of sociological thought on ethnicity. Working with individual social histories of diaspora peoples as they make their communities in the U.S., students will be introduced to theoretical frameworks that help to explain the differences between sojourners and settlers, migration and exile.
1 credit.
Not offered 2014-2015.
SOCI 010T. 1968 and the Origins of New Left: Social Theory, War and Student

## Revolt

The course begins with an ending, the Treaty of Versailles, and the failed socialist revolutions in Germany (1919) and Italy (1920-21) and the subsequent recasting of Marxist theory evident in the writings of Gramsci, Marcuse and eventually Habermas, thinkers who stimulate the rise of the New Left of the 1960s. 1968 symbolizes the massive changes of an era, the Paris student/worker revolt, the Prague Spring, the Chicago Democratic Convention, Vietnam and the Tet Offensive, and the flowering of youth culture and the New Left. Thus, events and social theory form the nucleus of thought and investigation for a course with a year, 1968, as its descriptive title
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015.

## SOCI 024B. Latin American Society and

## Culture

An introduction to the relationship between culture and society in Latin America. Recent and historical works in social research, literature, philosophy, and theology will be examined. Eligible for LASC or PEAC credit.

1 credit.
Not offered 2014-2015.

## SOCI 024C. Latin American Society

## Through Its Novel

(Cross-listed as LITR 071S)
From an interdisciplinary framework, we will explore the relationship between society and its representation in the Latin America novel. The course will also help us understand the links between fiction and reality, and the role of literature as a form of cognition. Selected works by Carlos Fuentes, Mario Vargas Llosa, Gabriel García Márquez, Isabel Allende, Luisa
Valenzuela, Jose María Arguedas and others.
Readings, assignments, and open-dialogue class are in English. No prior knowledge of Spanish necessary.
Eligible for LASC credit.
1 credit.
Spring 2015. Muñoz.

## SOCI 024D. Topics in Social Theory

This course deals with Kant's and Hegel's social philosophy insofar as it influenced the development of modern social theory. Works by Marx, Weber, Durkheim, Freud, and critical theorists, neo-conservatives, and postmodernists will also be discussed.
Theory course.
1 credit.
Not offered 2014-2015.

## SOCI 025B. Transforming Intractable

 ConflictThis course will address the sociology of peace process and intractable identity conflicts in deeply divided societies. Northern Ireland will serve as the primary case study, and the course outline will include the history of the conflict, the peace process, and grassroots conflict transformation initiatives. Special attention will be given to the cultural underpinnings of division, such as sectarianism and collective identity, and their expression through symbols, language, and collective actions, such as parades and commemorations.
Eligible for PEAC credit.
1 credit.
Not offered 2014-2015

## SOCI 027B. The Constitution of Knowledge

 in Modern SocietyThis course takes classic sociology of knowledge texts as a starting place for an interrogation and discussion of how knowledge is constructed in this culture. Additional texts will be drawn from gender and sexuality studies, black studies, and media studies as we examine the powerful ways that knowledge can be and is differently constructed within our own culture as well as the
ways that some kinds of knowledge seem to be categorically intractable across time and space.
Prerequisite: A course in theory,
sociology/anthropology, literature, or philosophy.
Theory course.
1 credit.
Not offered 2014-2015.

## SOCI 027C. Classical Theory

Through the works of Marx, Weber, Durkheim, Simmel, DuBois, and Freud, the recurrent and foundational themes of late 19th- and early 20thcentury social theory will be examined: capitalism, class conflict and solidarity, alienation and loneliness, social disorganization and community, and secularization and new forms of religiosity.
Theory course.
1 credit.
Not offered 2014-2015.

## SOCI 028D. Deviance

This is a class about how societies define some things as normal, and what happens when individuals or groups do not fit those definitions. It presents some basic theories of institutional constraint and the 'labeling' of people as deviant, emphasizing how these always involve issues of power and unequal opportunity. It focuses most centrally on the sociology of street crime, but also explores examples concerning drug and music subcultures, sex/sexuality/gender, religion, and extremist politics.
1 credit.
Not offered 2014-2015.

## SOCI 028E. Methods of Social Exploration

This course is a hands-on introduction to a wide range of different techniques for investigating social and cultural life, including; archival history; interviews; participant observation; analysis of interactions, conversations, texts, and media images; audio and video recording; sample surveys and questionnaires; statistical databases; Geographic Information Systems, and network mapping.
Methods course.
1 credit.
Spring 2015. Reay.

## SOCI 035C. Social Movements and Nonviolent Power

Social Movements and Nonviolent Power will address the sociological literature on social movements, including their emergence and maintenance. When and why do people participate? We will also take a strategic perspective and investigate a range of tactics and methods that movements employ. We will emphasize the power in social relations upon which collective nonviolent action capitalizes and the effects of strategic choices within movements.

Case studies might include the U.S. civil rights movement, the Soviet bloc revolutions, People Power in the Philippines, and the Arab Spring, among others.
Theory course.
1 credit.
Fall 2014. Smithey.

## SOCI 036B. Field Methods

In this course students are introduced to the theory and practice of field methods and their utility to sociologists. Students will design and carry out their own semester long research project employing both participant observation and in-depth interviewing.
Methods course.
1 credit.
Not offered 2014-2015.

## SOCI 036C. Sociology of U.S. Labor

## Movement

Over decades millions of workers struggled together, often at great risk and against great odds and repression, to build the U.S. labor movement. In the process they carved out a place of dignity, prosperity, and political voice for workers at the bottom of the economic ladder. They created a path of economic mobility for minorities, women and immigrants. They provided a counterweight for the average citizen against the increasingly concentrated power and influence of modern capitalism's most fortunate. Because the labor movement empowers the weak it has always been embattled and for decades now it has been in decline. While it contributed some to its own demise, capitalists have systematically attacked the labor movement with a carefully planned and well-funded hegemonic project that has directly challenged it, delegitimized it and legally hamstrung it. The consequences for workers and our society have been terrible. The labor movement is no longer a hedge against economic inequality and over the last several decades an ever-increasing share of the benefits of economic growth go to the top $1 \%$ of Americans while wages stagnate or decline for most Americans. Without labor our political discourse is bereft of any meaningful discussion of alternative to the corporate-sponsored neo-liberal ideology of freemarkets and deregulation. The traditional avenues of a strong labor movement-the less-educated, immigrants, women, Latinos, and
African-Americans-are closing. Soon, if things don't change, there will be no labor movement to speak of. No other institution in U.S. history has been able to do what the labor movement has done for the average person. What could revitalize it? What, if anything, could replace it? This course will use theories of politics, economics, class and social movements to understand the rise and
decline of the labor movement and why it was so critical in determining economic inequality.
Spring 2015. Viscelli.

## SOCI 036D. Into the Field: Qualitative

 MethodsThis course will introduce students to participant observation, interviewing, and surveys as research methods. We will read and discuss a range of studies employing these methods. Throughout the semester students will gain firsthand experience using these methods. This course will include a significant community-based learning component. Students will help to design a research study for a public elementary school, Andrew Jackson Elementary, in Philadelphia. This study will focus on why parents choose charter schools rather than their local neighborhood school. The project will aid Jackson in its efforts to attract more families from the surrounding neighborhood and may contribute to a critical debate about school choice in Philadelphia.
Methods course.
1 credit.
Fall 2014. Viscelli.

## SOCI 038C. Sociology of Economic Life

This class covers a range of topics concerning economic life broadly defined. It doesn't focus on the way markets work - which is the main strategy of the discipline of economics. Instead it looks at how other phenomena might be important, especially power hierarchies, network connections, and cultural biases.
Theory course.
1 credit.
Fall 2014. Reay.
SOCI 040B. Language, Culture and Society (See LING 025)
1 credit.
Not offered 2014-2015.
SOCI 040G. Between the "Is" and the "Ought" Black Social and Political Thought
(Cross-listed as BLST 040G)
Our study of black social and political thought will include not only the pivotal scholarly texts, but also the social and political practice and cultural production of abolitionists, maroons, Pan-
Africanists, club women, freedom fighters, poets, and the vast array of "race men and women" across the spectrum of crusades. We will explore the range of intellectual and cultural production and protest ideology/action of Blacks through the politics and social observation of the pre-emancipation period, post-emancipation liberation struggles, and the post-colonial and post-civil rights period.

1 credit.
Not offered 2014-2015.

## SOCI 040I. Race and Place: A Philadelphia

 StoryUsing Philadelphia neighborhoods as our site of study, this course will analyze the relationship between race/ethnicity and spatial
inequality, emphasizing the institutions, processes, and mechanisms that shape the lives of urban dwellers. We will survey major theoretical approaches and empirical investigations of racial and ethnic stratification in cities, their concomitant policy considerations, and the impact at the local level in Philadelphia. We will focus particular attention on the role of narrative and racialized discourse in relation to the distribution of an array of economic, social, and political resources to city residents.
Eligible for BLST credit.
1 credit.
Not offered 2014-2015.
SOCI 040K. Political Sociology: The Mafia and the State
This course will introduce students to the comparative study of criminal organizations across the globe. In it, we will explore the social, political and economic conditions in which organized crime develops. Analyses will be focused on the organization of criminal networks, rules and codes, activities both in legitimate business and illegal markets, and their relationship to politics. This comparative approach will enable students to identify those factors facilitating the emergence, migration and persistence of organized crime across nation states and global polities -
emphasizing the mechanisms, processes and institutions that structure and are structured by criminal organizations. We will survey the major theoretical approaches and empirical
investigations of Mafias and like organizations in Italy, Russia, China, Japan, Central Asia, Central and South America, the United States, and locally in Philadelphia.
Theory course.
1 credit.
Fall 2014. Johnson.
SOCI 044B. Colloquium: Art and Society
An examination of the relationship between art and society from a sociohermeneutical perspective. Literary and sociotheoretical works will be the main focus of analysis this semester. Selected works by Plato, Nietzsche, Hegel, Mann, Dostoevski, Kafka, Benjamin, Lukacs, Freud, Borges, Foucault, and Sontag will be examined.
Eligible for INTP credit.
Theory course.
1 credit.
Not offered 2014-2015.

SOCI 044C. Colloquium: Contemporary

## Social Theory

A discussion of contemporary social theory and its antecedents. The first part of the course will be devoted to a discussion of works by Nietzsche,
Marx, and Freud. The second part will deal with
works by contemporary theorist such as Habermas,
Geertz, Foucault, Bourdieu, and Freire.
Prerequisite: SOAN 044E.
Theory course.
1 credit.
Not offered 2014-2015.

## SOCI 044D. Colloquium: Critical Social

 TheoryAn overview of major developments of critical social theory since the 19th century. Readings from Marx, Freud, Nietszche, Lukacs, Adorno, Horkheimer, Benjamin, Habermas, Foucault, Bourdieu and Freire. It is highly recommended that students take SOAN 044E Colloquium: Modern Social Theory before taking this course. Theory course.
1 credit.
Not offered 2014-2015.

## SOCI 044E. Colloquium: Modern Social

## Theory

This course is an analysis of the rise and development of modern social theory. The introduction to the colloquium deals with works by such social philosophers as Rousseau, Kant, and Hegel. The core of the colloquium focuses on selected works by Marx, Weber, Durkheim, and Freud. The colloquium is recommended for advanced work in social theory and is particularly well suited for students interested in the areas of sociology and anthropology and interpretation theory.
Eligible for INTP credit.
Theory course.
1 credit.
Spring 2015. Muñoz.
SOCI 048C. Sociology of Science
This class explores science as a social phenomenon. It first looks at the various 'internal' aspects of science as an institution, including its organizational structures, work practices, status systems, and forms of discourse. It then turns to the 'external' issues of how science relates to the rest of society, including its connection to gender, racial, and international inequality, its portrayal in the media, its relationship to technology, its conflicts with religion, and its authority as 'objective' truth in law and government. 1 credit.
Not offered 2014-2015.

SOCI 048D. Sociology of Humor
Humor and laughter are common elements of everyday life in most cultures, but what exactly are they, and what do they do? This course explores how humor is in fact a wonderfully complex and multifunctional phenomenon based on people managing social contradictions by switching their level of awareness. It looks at how this deceptively simple mechanism can then end up playing a number of important roles in communication, group identity formation, domination, resistance, and entertainment.
1 credit.
Not offered 2014-2015.

## SOCI 062B. Sociology of Education

(See EDUC 062)
Theory course.
1 credit.
Not offered 2014-2015.

## SOCI 095. Independent Study

Two options exist for students wishing to get credit for independent work. All students wishing to do independent work must have the advance consent of the department and of an instructor who agrees to supervise the proposed project.
Option 1 - consists of individual or group directed reading and study in fields of special interest to the students not dealt with in the regular course offerings.
Option 2 - credit may be received for practical work in which direct experience lends itself to intellectual analysis and is likely to contribute to a student's progress in regular course work. Students must demonstrate to the instructor and the department a basis for the work in previous academic study. Students will normally be required to examine pertinent literature and produce a written report to receive credit.
0.5 or 1 credit.

Fall 2014 and spring 2015. Staff.

## Sociology Seminars

## SOCI 127. Race Theories

Contemporary theories of race and racism by sociologists such as Winant, Gilroy, Williams, Gallagher, Ansell, Omi, and others will be explored. Concepts and controversies explored will include racial identity and social status, the question of social engineering, the social construction of justice, social stasis, and change. The U.S. is the focus, but other countries will be examined. Without exception, an introductory course on race and/or racism is a prerequisite.
Theory course.
Eligible for BLST credit.
2 credits.
Spring 2015. Willie-LeBreton.

SOCI 129. Sociology of Technology
This seminar explores sociological approaches to understanding the development and impact of technology. The first half reviews the literature on a number of basic topics, including utopian and dystopian predictions, historical and constructionist approaches to explaining technological development, and debates over the control of technological risk. The second half further explores these ideas by looking at more detailed topics, with seminar participants themselves selecting the topics, as well as finding and presenting appropriate readings.
2 credits.
Not offered 2014-2015.

## SOCI 138. Work and Identity

This seminar looks at how different occupations and work conditions are central to the construction of identity and to the reproduction of class, racial, ethnic, and gender inequalities in the contemporary U.S. It explores these issues by looking primarily at ethnographies and interviews, getting into a fair amount of detail concerning what it's like to do different jobs. Particular topics covered include factory work, construction management, service work, domestic, office work, and illegal work.
2 credits.
Not offered 2014-2015.
SOCI 162. Sociology of Education
(See EDUC 162)
Prerequisite: EDUC 014 or permission of the instructor.
Theory course.
2 credits.
Not offered 2014-2015.

## SOAN 180. Honors Thesis

Candidates for honors will usually write theses during the senior year. Students are urged to have their thesis proposals approved as early as possible during the junior year.
Writing course.
2 credits.
Fall 2014 and spring 2015. Staff.

## SociologylAnthropology Courses

SOAN 001A. Introduction to Anthropology and Sociology
This course offers a foundational introduction to the department's two fields; anthropology and sociology. Taught by both a sociologist and an anthropologist, it provides a solid background to ongoing debates in the study of culture and society, highlighting the distinct but complementary theories and methods of the two disciplines. Throughout the course, we will examine fundamental theories and concepts of
both sociologists and cultural anthropologists and how these have changed over time.
1 credit.
Fall 2014. Ghannam and Willie-LeBreton.
SOAN 020B. Urban Education
(See EDUC 068)
Theory course.
1 credit.
Spring 2015. Staff.
SOAN 030P. Introduction to GIS for Social and Environmental Analysis
(See POLS 037)
1 credit.
Fall 2014. Heckert.

## SOAN 096-097. Thesis

Theses will be required of all majors. Seniors will normally take two consecutive semesters of thesis tutorial. Students are urged to discuss their thesis proposals with faculty during the spring semester of their junior year, especially if they are interested in the possibility of fieldwork. In order to receive credit for SOAN 096 students must attend SOAN 098.

Writing course (for SOAN 097 only).
1 credit each semester.
Fall 2014 and spring 2015. Staff.
SOAN 098. Thesis Writers Master Class
This class meets weekly to support sociology and anthropology students in developing the skills necessary for writing their theses, including conducting literature searches, interpreting data, formulating research questions, and writing in a way that contributes to the disciplines. The class complements and supports the work that students are doing with their thesis advisers. Students who have signed up for a senior thesis credit are automatically enrolled in the class. The class is open to only senior thesis writers.
0 credit.
Fall 2014. Willie-LeBreton.

ALLEN KUHARSKI, Professor and Chair
K. ELIZABETH STEVENS, Assistant Professor ${ }^{3}$

MATT SAUNDERS, Assistant Professor (part time)
LAILA SWANSON, Assistant Professor (part time), Co-Chair for Production
ELIZABETH ATKINSON, Visiting Assistant Professor (part time)
GABRIEL QUINN BAURIEDEL, Visiting Assistant Professor (part time)
JAMES MAGRUDER, Visiting Assistant Professor (part time)
ALEX TORRA, Visiting Assistant Professor (part time)
ADRIANO SHAPLIN, Visiting Instructor (part time)
SARAH SANFORD, Visiting Instructor (part time)
JAMES MURPHY, Associate in Theater Performance (part time)
ADAM RIGGAR, Production Manager and Technical Director
JEAN TIERNO, Administrative Assistant
TARA WEBB, Costume Shop Manager and Arts Administrator
${ }^{3}$ Absent on leave, 2014-2015.

The theater major uses the study of all aspects of performance as the center of a liberal arts education. It is intended to be of broad benefit regardless of a student's professional intentions. All courses in the department address the processes of play production, especially as they involve collaboration; all production for performance in the department is part of coursework.
The Theater Department emphasizes writing as an important aspect of discursive thinking and communication. Many courses have a significant writing component, the nature of which varies from course to course.

## The Academic Program

Planning a major or minor in theater requires thoughtful care and deliberate planning. First- and second-year students thinking about a theater major should read these requirements and recommendations closely and should consult with their faculty adviser or the chair of the Theater Department early and often. Leave schedules, study abroad, a wide variety of intern and apprentice programs, and the importance of course sequences make long-range planning essential.
Almost all theater courses and seminars are offered on a regular, annual schedule.
Courses numbered 001 to 010 are introductory and are prerequisite to intermediate courses.
Courses numbered 011 to 049 are intermediate and are prerequisite to advanced courses numbered 050 through 099.
Seminars carry numbers 100 and above.
Intermediate work in each of the course sequences requires a beginning course in that area.
Some advanced courses carry additional prerequisites that are listed in the course descriptions.
For those majors who intend a career in theater, whether academic, not-for-profit, or commercial, internships in professional theaters are strongly
recommended. Because of scheduling difficulties, students should plan and apply for internships, time spent off campus, and community projects as far in advance as possible.
Alumni guest artists are typically in residence on campus during the summer as part of the Swarthmore Project in Theater. Positions are usually available in production, development, public relations, marketing, box office, and house or stage management. Positions are usually not available in acting, directing, or design.

## Course Major

## Requirements

10 credits of work including:

- Fundamentals of Dramaturgy (001)
- Acting I (002A)
- Fundamentals of Design for Theater and Performance (003) or any course in design (004A, 004B, 004C, 004D, 004E)
- Performance Theory and Practice (015)
- One credit from following list: Playwriting Workshop (006) or Solo Performance (025) or Directing I (035)
- Production Ensemble (022) or Special Project in Design (034)
- Senior Company (099)
- Theater Seminar (100-level)
- One additional credit in acting, design, directing, theater history, playwriting, or dramaturgy
All course majors and minors are required to fulfill a set number of hours doing technical/crew work before the end of the junior year. Students can obtain details on how to fulfill the technical/crew requirement from their major advisers, the department office, or from advising forms available outside the chair's office. Technical/crew hours can be arranged directly with the
department’s Production Manager/Technical Director or Costume Shop Supervisor.
The areas of specialization are acting, solo performance, directing, design, playwriting, dramaturgy, and theater history. Special arrangements will be made for students who seek secondary school certification. Prospective majors should consult with the chair or their department adviser about their choice.
In addition to these course requirements, the major includes a comprehensive examination in two parts: (1) an essay relating the student's experience in Senior Company; and (2) an oral examination on the essay and related subjects by theater faculty.


## Course Minor

Course minors are required to take 7.0 credits of work including:

- Fundamentals of Dramaturgy (001)
- Acting I (002A)
- Fundamentals of Design for Theater and Performance (003) or any course in design (004A, 004B, 004C, 004D, 004E)
- Performance Theory and Practice (015)
- One credit from following list: Playwriting Workshop (006) or Solo Performance (025) or Directing I (035)
- Production Ensemble (022) or Special Project in Design (034)
- Each minor will choose an area of specialization and take one additional course or seminar in that area. Course minors who complete these requirements by the end of the junior year may petition to enroll in THEA 099: Senior Company in the fall semester of their senior year.
All course minors need to fulfill the same technical/crew requirement described for course majors above.


## Honors Major

General requirements include:

- Fundamentals of Dramatrugy (001)
- Acting I (002A)
- Fundamentals of Design for Theater and Performance (003) or any course in design (004A, 004B, 004C, 004D, 004E)
- Performance Theory and Practice (015)
- One credit from following list: Playwriting Workshop (006) or Solo Performance (025) or Directing I (035)
- Production Ensemble (022) or Special Project in Design (034)
- Senior Company (099)
- Theater Seminar (100-level; counts as one honors preparation)
- Two additional thesis projects or seminars to be arranged individually in consultation with the student's major adviser.
All potential honors majors need to fulfill the same technical/crew requirement described for course majors above.
Each major will choose an area of specialization and take one additional course in that area. One specialization will constitute the normal honors major in theater. Honors students will take Senior Company in the fall of senior year, while they are planning their production project. The usual schedule will be spring of junior year, Theater Seminar; fall of senior year, THEA 099 and prerehearsal thesis project preparation; and spring of senior year, rehearsal and performance of the thesis project.
Double majors taking three examinations in theater will also follow that schedule.
For double majors taking one honors examination and comps in theater, the examination may be a production project, depending on available resources.
Approval of the Sophomore Plan for any honors major is conditional upon;
- the student maintaining good academic standing through the end of the junior year.
- theater honors majors approved for production thesis projects in the senior year are required to notify the department chair of their intention to drop or change their Honors Program by the end of the junior year.
- an honors major in theater must receive the approval of their major adviser before committing to any extracurricular or off-campus projects during the junior or senior year in order to avoid potential conflicts with their honors thesis work.
- students who prove unable to fulfill the expectations of the faculty for their Honors Programs in theater may be dropped from honors at the department's discretion.
- unless for reasons of health or other personal circumstance beyond the student's control, leaving the department's Honors Program after the end of the junior year is considered a significant compromise of a student's academic performance.
Honors students majoring in theater will typically make a total of three preparations as follows:

1. Seminar (listed earlier), written examination, and an oral set by an outside examiner.
2. Production project in one of the following
fields: Acting, Design, Directing, Dramaturgy, Playwriting, or Solo Performance (see descriptions below).
3. A third preparation for honors will be approved at the discretion of the faculty at the end of the student's junior year.

In the student's Sophomore Plan of study and again in the junior year, they will be asked to indicate their first and second preference for their third honors preparation, only one of which may be for an additional production thesis. In addition to thesis preparations in the form of performance projects, the third preparation may consist of a second seminar, staged readings in playwriting or production dramaturgy, portfolio projects in design, written thesis work in performance theory, playwriting, dramaturgy, etc. Due to scheduling and staffing constraints, the department can only guarantee one individual performance thesis project per student. Decisions on the third preparation in honors will be made on a case-by-case basis, in part on the quality and completeness of each student's coursework in the department through the end of the junior year.

## Acting

The student, together with their adviser, will undertake a project that will take place over the course of two semesters. The fall semester will consist of a series of workshops and assignments designed to further develop the critical and practical skills required for performance. This preparatory work in the fall semester will be put to use in the spring through the production of a play or performed by the students and directed by the acting faculty. An external examiner will attend as many rehearsal sessions as possible to observe the student's process. The examiner also attends one or more of the public performances. The examination proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as he or she relates to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans.

## Design

The student will function as the designer for a production presented by the Theater Department in one area of design. The student will produce appropriate preparatory materials for this project (research, sketches, color renderings, drafting, models, digital media, light or sound plots, etc.). Because this is a collaborative project, a production time line will need to be prepared and
production meetings scheduled. In addition to the development of the design, the student will collaborate with all relevant staff and craftsmen during the fabrication stage, ensuring the full-scale design is executed as designed. The local instructor will supervise these activities appropriately, on the model of a special project in theater. The external examiner will receive copies of all materials as the student creates them and will pay close attention to the way in which the project develops under continual revision. The examiner will attend one of the public performances and in advance of honors weekend will receive in digital form the student's completed portfolio for presentation. The examination proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as he or she relates to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans.
The student may also prepare a portfolio project in design as an honors thesis, with all appropriate studio work but without being linked to a specific production in the department. Such a project permits the student to create a project beyond the givens of the department's specific production environment.

## Directing

The student will, under faculty supervision, read around a given playwright's work, make a director's preparation for the entire play, and rehearse for public presentation a locally castable portion of the chosen play. Original developmental projects may be proposed, subject to the approval of the faculty adviser for the thesis. The department will hire a professional collaborator (usually an actor) for a set number of rehearsal hours in connection with the project. The instructor will supervise these activities appropriately, on the model of a special project in theater. The external examiner will visit this project several times (depending on schedule and available funds). These visits (to rehearsal or planning session) will not include feedback from the examiner. The examiner attends rehearsal to know as much as possible about the student's methods of making the work. The examiner also attends one or more of the public performances. The examination proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as he or she relates to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans.

## Dramaturgy

This project will be done in one of the following ways:

1. As a production project in the form of a onecredit attachment to the Fundamentals of Dramaturgy class (THEA 001) or Production Dramaturgy Seminar (THEA 121) consisting of work with a faculty or student director. This will typically be in connection with Production Ensemble or an honors thesis in directing. The student will create a body of writing appropriate to the specific project. This will include (but is not limited to) notes on production history, given circumstances, script analysis, program and presskit notes, study guide, and a grant proposal. The student's work will continue in rehearsal. The external examiner will receive all materials as they are generated. The examiner also attends one or more of the public performances. The examination proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as he or she relates to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans.
2. The completion of a stage adaptation of a nondramatic text or combination of texts. A complete draft of the adaptation will be completed under the supervision of a faculty member in production dramaturgy, and a staged reading of a revised version of the text will be presented in collaboration with a professional director as guest artist. This is a two-credit thesis project to be completed over two semesters in the senior year, generally parallel to the honors thesis model for playwriting. The examiner will attend at least two rehearsals and the final staged reading, in addition to reading the final text and its original source. The examination will consist of an extended oral presentation given during honors weekend.
3. Students fluent in a second language can apply to do a translation of a play into or out of English as an honors thesis attachment to Production Dramaturgy. This may be a one-credit attachment for a written draft only (done with a member of the faculty) or as a two-credit thesis with a staged reading done in collaboration with a guest director, as in the adaptation thesis above. In the case of a staged reading, the examiner will attend at least two rehearsals and the final staged reading, in addition to reading the final text together with the original source. The examination proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as he or she relates to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans.

## Playwriting

The student will write a complete draft of a play over the course of a semester in collaboration with a faculty member or other professional production dramaturge. In a second semester, the department will hire a professional director for a set number of rehearsal hours in preparation for a staged reading, with whom the student will work through a rehearsal and revision process based on the earlier work with the production dramaturgy. The faculty adviser and/or the production dramaturgy faculty will continue to assist during the rehearsal/revision process. The external examiner will read the completed first draft and attend as many rehearsal sessions as possible and the final staged reading to observe the student's writing and collaborative process. The examination proper will consist of an extended interview directly following the staged reading, the reading of the student's revised draft based on the rehearsal process and performances, and a briefer oral examination during honors weekend. There is also the option of a purely written playwriting thesis preparation, without the production component.

## Solo Performance

The student, with guidance from their adviser, will create and perform a solo performance. The program will hire a professional director for a set number of rehearsal hours, which the student will supplement with practice and other writing, acting, and design "homework." The adviser will assist in this work on a regular basis. The external examiner will attend as many rehearsal sessions as possible to observe the student's process. The examiner attends rehearsal to know as much as possible about the student's methods of making the work. The examiner also attends one or more of the public performances. The examination proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as he or she relates to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans.

## Honors Minor

Seven credits of work including:

- Fundamentals of Dramaturgy (001)
- Acting I (002A)
- Fundamentals of Design for Theater and Performance (003) or any course in design (004A, 004B, 004C, 004D, 004E)
- Performance Theory and Practice (015)
- One credit from following list: Playwriting Workshop (006) or Solo Performance (025) or Directing I (035)
- Theater Seminar (100-level) or twocredit Honors Thesis in Dramaturgy (180-181) or two-credit Honors Thesis in Playwriting (180-181)
Honors minors who complete these requirements and complete a sequence in acting, design, directing, or playwriting/dramaturgy by the end of the junior year may petition to enroll in THEA 099: Senior Company in the fall semester of their senior year.
There is an option for students to pursue a course major in conjunction with an Honors minor, in which case the student may be eligible for an individual thesis project along the lines of those described for honors majors above. Interested students should discuss the details of this with their major advisers before preparing their sophomore papers.
All potential honors minors need to fulfill the same technical/crew requirement described for course majors above.


## Department Policies for All Theater Majors and Minors

Co-curricular and extracurricular work in the Theater Department, although not specifically required, is strongly recommended for majors. Opportunities include paid and volunteer staff positions with the department, in-house projects for various classes, production work in The Eugene M. and Theresa Lang Performing Arts Center, and Drama Board productions.
While the Theater faculty recognizes the value of co-curricular and extra-curricular performance work by students, such commitments at times can create serious stress and scheduling conflicts that can negatively impact a student's health and academic performance. The department therefore requires all majors and minors to receive written pre-approval from either their advisers or the chair before committing to any performance work outside of the department.
In the case of conflicts for students between dress rehearsals or performances in the department and other classes, the faculty will gladly make arrangements for excused absences with professors in other departments. Students should alert the department faculty about any such conflicts in the first weeks of rehearsals for any given production in the department, and never less than two weeks before the date of the conflict with dress rehearsals.
Working consistently with faculty on such timemanagement issues is essential for all rising theater majors and minors, and is of the highest priority for students planning to participate in the Honors Program.
With respect to the 20-course rule, courses in dramatic literature taught in the English Literature, Classics, or Modern Languages and Literatures departments may be designated as part of the
major. Courses in non-dramatic literatures taught in those departments will not be considered part of the major.

## Recommended Course/Seminar <br> Sequence for Majors and Minors

* indicates requirements for all course and honors majors in theater.


## Freshman Year

Fundamentals of Dramaturgy (001)
Acting I (002A), fall or spring semester*
Any course in design (003 or 004 sequence), fall
or spring semester*
Production Ensemble (022), fall semester* (by audition; open to first-year students)

## Sophomore Year

Fundamentals of Dramaturgy (001) (if not taken freshman year)
Performance Theory \& Practice (015), fall semester* (counts for Writing Intensive Course Credit in the Humanities)
Playwriting Workshop (006), or Solo Performance (025)

Production Ensemble (022), fall semester*, or
Special Project in Design (034), fall or spring semester
(If not taken in freshman year, Theater 022 or 034 recommended here for students considering study abroad in their junior year)
NB: Theater majors planning a semester abroad should plan to do so in the spring of the sophomore year or the fall of the junior year.

## Junior Year

Playwriting Workshop (006), or Solo Performance
(025), or Directing I (035)

Performance Theory \& Practice (015), fall semester*
Production Ensemble (022), fall semester* (if not taken in previously)
Special Project in Design (034), fall or spring semester
Theater Seminar (100-level) spring semester* (counts for Writing Intensive Course Credit in the Humanities)
NB: A seminar is required for all theater majors and honors minors and should be taken in the junior year.
Completion of a sequence in acting, directing, design, playwriting, or production dramaturgy*
Completion of the technical/crew hours
requirement
Senior Year
Senior Company (099), fall semester*
(honors majors add at least one credit of thesis credit each semester of the senior year)

## Introductory Courses

All introductory courses are open to all students without prerequisite.

THEA 001. Fundamentals of Dramaturgy
This course will investigate a tripartite nature of dramaturgy as it is currently regarded and practiced in American theater. Structural dramaturgy: tragedy, comedy, farce, the wellmade play, and modern departures thereof. Production dramaturgy: collaborative process, methods and strategies for historical research, note-taking, script editing, and adaptation. Institutional dramaturgy: script evaluation, season planning, mission statements, marketing and audience outreach. Through readings, discussions, writing assignments, and engagement with campus and area productions, students will sidestep the deathless-and deadly-question, "What is a dramaturg?" to focus upon how dramaturgs think and what they do with what they know.
Fulfills a general requirement for all theater majors and minors as well as a counting as a writingintensive course in the Humanities Division. 1 credit.
Fall 2014. Magruder.
THEA 002A. Acting I
This course is designed as a practical introduction to some of the principles, techniques, and tools of acting. We will use theater games and improvisational exercises (from Stanislavsky, Viola Spolin, Uta Hagen and other sources) to unleash the actor's imagination, expand the boundaries of accepted logic, encourage risk taking, and free the body and voice for the creative process. We will also focus on beginning to analyze text, understanding scene-work and monologues in relation to an entire play, listening and responding to self, others and space, and developing the ability to play actions. Finally, each student will have the opportunity to test our principles of work through one scene with a partner, no longer than ten minutes, to be assigned by the instructor. This scene will be performed in front of the class.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Fall 2014. Bauriedel. Fall 2014. Sanford. Spring 2015. Staff.

## THEA 002B. Special Project in Voice Performance

By individual arrangement with the directing or acting faculty for performance work in connection with department directing workshops, honors thesis projects, or Senior Company.
0.5 or 1 credit.

Fall and spring semesters. Staff.

THEA 002C. Special Project in Acting
By individual arrangement with the directing or acting faculty for performance work in connection with department directing workshops, honors thesis projects, or Senior Company.
Prerequisite: Concurrent or past enrollment in THEA 002A.
0.5 or 1 credit. CR/NC grade.

Fall and spring semesters. Staff.
THEA 003. Fundamentals of Design for Theater and Performance
This course offers an introduction to creative aspects of designing scenery, costumes, lighting, and sound for theater and performance with emphasis on the correlation of text, imagination, and space. In a collaborative classroom setting, the students will have the opportunity to explore individual ideas and transform these into a design that is cohesive and relevant to a production. The lab component of the course will provide a broad introduction to the technical aspects of theater production. The course is designed to serve all students regardless of prior experience in theater production.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Spring 2015. Swanson.

## THEA 004A. Set Design

This course will focus on set design and introduce methods that apply to designing for stage. In class, we will take a look at the set designer's responsibilities as an artist and collaborator and explore the relationship between text, concept, and production in addition to learning the basic skills of drafting and model making. In addition, we will discuss the relationship between scenery, costumes, and light in performance. A lab component of this class will include an introduction to computer drafting and additional information about materials used for stage construction. The course is designed to serve all students regardless of prior experience in theater production.
Fulfills a general requirement for all theater majors and minors.
1 credit. Spring 2015. Saunders.

## THEA 004B. Lighting Design

This class explores the fundamentals of lighting design. The course objective is to introduce lighting concepts and how to express them for both theater and dance. It is intended to demystify an enormously powerful medium. Reading and class discussion provide a theoretical basis for such creativity while the assignments and projects provide the practice for this artistic endeavor. The
course is designed to serve all students regardless of prior experience in theater production.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Fall 2014. Murphy.
THEA 004C. Costume Design
This course will focus on costume design and introduce methods that apply to designing for stage. In class, we will take a look at the costume designer's responsibilities as an artist and collaborator and explore the relationship between text, concept, and production. In addition to formal lecture, we will discuss fabrics and colors and how they relate to light and scenery in performance, and we will explore different medium and techniques for presentation of a design. A lab component of this class will introduce the student to costume shop operation and equipment in addition to a brief overview of costume history. The course is designed to serve all students regardless of prior experience in theater production.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Fall 2014. Swanson.

## THEA 004D. Integrated Media Design for

 Live PerformanceThe purpose of this course is to introduce students to the application of various visual and audio technologies in live theater and dance performance. Discussion of the historical and theoretical context of contemporary mixed-media performance will be combined with an orientation to the available technologies found at Swarthmore and beyond. The class will include the
conceptualization and preparation of a series of individual studio projects. The course is designed to serve all students regardless of prior experience in theater production.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Spring 2015. Saunders.

## THEA 004E. Sound Design

This course will provide an introduction to sound design concepts for live performance. Course work will emphasize research, design development, collaboration, and the creative process. Laboratory work will focus on basic audio engineering, software, field recording, and documentation in a theatrical context. The course is designed to serve all students regardless of prior experience in theater production.
Fulfills a general requirement for all theater majors and minors.

1 credit.
Fall 2014. Atkinson.
THEA 005. Opera Production Workshop (Cross-listed as MUSI 024)
Opera is a collaborative art form, involving composing, writing, performing, stage directing, choreography and design. In this workshop-based class, students will gain a basic understanding of opera as an art form and experience all aspects of the rehearsal and production process. The class culminates in the performance of an original opera written, directed and performed by faculty and students in collaboration with students from a nearby elementary school.
1 credit.
Spring 2015. Staff.
THEA 006. Playwriting Workshop
This creative workshop course introduces students to essential elements of dramatic writing. In-class writing exercises and weekly assignments lead to the development of character monologues, scenes, and two original one-act plays. A variety of stylistic approaches and thematic concerns are identified through the reading and discussion of plays by contemporary playwrights. Students will explore their individual creative voice, learning how to translate their vision through character, image, and story.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Spring 2015. Shaplin.
THEA 008. Movement Theater Workshop (Cross-listed as DANC 049)
This class will offer an orientation to movementbased acting through various approaches: traditional performance traditions in Bali and elsewhere, commedia dell'arte, the teachings of Jacques Lecoq, and so forth. Taught by Gabriel Quinn Bauriedel of the Pig Iron Theatre Company in Philadelphia. The class will require rehearsal with other students outside of class time and will end with a public showing of work generated by the students. Six hours per week.
Note: Movement Theater Workshop cannot be taken in lieu of THEA 012 either as a prerequisite for Acting III or by students seeking a major or a minor with an emphasis in acting.
Prerequisites: THEA 002A, any dance course numbered 040-044, or consent of the instructor. 1 credit.
Spring 2015. Bauriedel.

## Intermediate Courses

THEA 012. Acting II
In this course students will explore and develop the skills necessary to perform Shakespeare with
specificity and confidence. In addition to vocal and physical exercises intended to strengthen and free the actor's body and voice, students will delve into Shakespearean scene study. The course provides a strong foundation in basic acting technique that can be applied to multiple dramatic genres. In addition students will explore
Shakespearean scenes using rigorous textual analysis, learning to use the clues in Shakespeare's text to make smart, useful acting choices. While working on scenes from Shakespeare's plays, students will learn how to rehearse, how to develop a character and how to increase their vocal, physical and emotional flexibility
Prerequisites: THEA 002A.
1 credit.
Spring 2015. Staff.
THEA 012A. Intermediate Special Project in Acting
By individual arrangement with the acting or directing faculty for performance work in connection with department directing projects, honors thesis projects, or Senior Company. May be taken concurrently with THEA 008 or 012. Prerequisite: THEA 002A, THEA 002C, and THEA 008 or 012 or 022.
0.5 or 1 credit. CR/NC grade.

Fall and spring semesters. Staff.

## THEA 013. Special Project in Theater

 PracticumBy individual arrangement with the design or directing faculty for production work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 003 or any 004 design class.
0.5 or 1 credit. CR/NC grade.

Fall and spring semesters. Staff.
THEA 014. Special Project in Stage Management
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 014A. Special Project in Set Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004A.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 014B. Special Project in Lighting

Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004B.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 014C. Special Project in Costume

 DesignBy individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004C.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 014D. Special Project in Integrated Media Design
By individual arrangement for a production project in connection with department directing
workshops, Production Ensemble, honors thesis
projects, or Senior Company.
Prerequisite: THEA 004D.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 014E. Special Project in Sound

 DesignBy individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004E.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 015. Performance Theory and

## Practice

This course covers a series of major texts on performance theory and practice, with emphasis on directing and acting. Assigned readings will focus on theoretical writings by or about the
performance work of artists such as Zeami, Stanislavsky, Artaud, Brecht, Grotowski,
Mnouchkine, Chaikin, Suzuki, and Robert Wilson as well as selected theoretical and critical texts by nonpractitioners. The course includes units on performance traditions and genres outside of Europe and North America. Weekly video screenings required.
Fulfills a general requirement for all theater majors and minors.
Writing course.
1 credit.
Fall 2014. Kuharski.

THEA 016. Special Project in Playwriting An independent study in playwriting taken either as a tutorial or in connection with a production project in the department. By individual arrangement between the student and department faculty.
Prerequisites: THEA 006.
1 credit.
Fall and spring semesters. Staff.

## THEA 021. Special Project in Production

 DramaturgyProduction dramaturgy in connection with a production completed on or off campus. To be taken concurrently with or following THEA 001: Fundamentals of Dramaturgy. By individual arrangement between the student and the department faculty.
Prerequisite: THEA 001
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 022. Production Ensemble I

Rehearsal of a full-length work for public performance with a faculty director: ensemble techniques, improvisation, using the audience as part of the given circumstances. Required for all course and honors majors in acting, directing, and dramaturgy; also required for course minors in acting, directing, and dramaturgy.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Fall 2014. Torra.

## THEA 023. Special Project: Intermediate

 Theater PracticumBy individual arrangement with the design or directing faculty for production work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 003 or any 004 design class, and THEA 013.
0.5 or 1 credit. CR/NC grade.

Fall and spring semesters. Staff.
THEA 024. Special Project: Intermediate Stage Management
By individual arrangement for a production project in connection with department directing workshops, honors thesis projects, Acting III, or Senior Company.
Prerequisite: THEA 003, or THEA 004B, or THEA 035.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 025. Solo Performance
Solo performance is a theater of inclusion: it creates a space in which everyone can speak up
and be heard. In this course students will research, write, and perform a one-person show. This course fulfills the intermediate acting requirement for acting majors and minors (Acting $I$ is still required for all majors and minors). It also counts as a prerequisite for Production Ensemble in the spring. Fulfills a general requirement for all theater majors and minors.
1 credit.
Next offered spring 2016.
THEA 034A. Special Project: Intermediate Set Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004A and THEA 014A.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 034B. Special Project: Intermediate Lighting Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004B and THEA 014B.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 034C. Special Project: Intermediate Costume Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004C and THEA 014C.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 034D. Special Project: Intermediate Integrated Media Design
By individual arrangement for a production project
in connection with department directing
workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004D and THEA 014D.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 034E. Special Project: Intermediate Sound Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004E and THEA 014E.
0.5 or 1 credit.

Fall and spring semesters. Staff.

THEA 035. Directing I: Directors' Lab
This course focuses on the theater director's role in a collaborative ensemble and on the ensemble's relation to the audience. Units cover the director's relationship with actors, designers, composers, technicians, and playscripts. The student's directorial self-definition through this collaborative process is the laboratory's ultimate concern. Final project consists of an extended scene to be performed as part of a program presented by the class.
Prerequisites: THEA 001, THEA 002A.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Fall 2014. Kuharski.

## THEA 042. Production Ensemble II

Available by audition or consent of instructor to students who have successfully completed THEA 022.

1 credit.
Fall 2014. Torra.

## Advanced Courses

THEA 052. Production Ensemble III
Available by audition or consent of instructor to students who have successfully completed THEA 022 and 042.
1 credit.
Fall 2014. Torra.

## THEA 053. Special Project: Advanced

Theater Practicum
By individual arrangement with the design or directing faculty for production work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 003 or any 004 design class, and THEA 013, and THEA 023.
0.5 or 1 credit. CR/NC grade.

Fall and spring semesters. Staff.
THEA 054A. Special Project: Advanced Set Design
By individual arrangement for a production project in connection with department directing
workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004A and THEA 014A and THEA 034A.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 054B. Special Project: Advanced Lighting Design
By individual arrangement for a production project in connection with department directing
workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004B and THEA 014B and THEA 034B.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 054C. Special Project: Advanced Costume Design
By individual arrangement for a production project
in connection with department directing
workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004C and THEA 014C THEA 034C.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 054D. Special Project: Advanced Integrated Media Design
By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004D and THEA 014D and THEA 034D.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 054E. Special Project: Advanced

## Sound Design

By individual arrangement for a production project in connection with department directing workshops, Production Ensemble, honors thesis projects, or Senior Company.
Prerequisite: THEA 004E and THEA 014E and THEA 034E.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 055. Directing II: Advanced Directing Workshop
Directing II requires students to apply the exercises from THEA 035: Directing I to a variety of scene assignments. These will address a variety of theatrical genres and various approaches to dramatic text (improvisation, cutting, and/or augmentation of play scripts, adaptation of nondramatic texts for performance, etc.). Projects will be presented for public performance.
Prerequisites: THEA 001, 002A, 015, THEA 035, and any class in design.
1 credit.
Spring 2015. Kuharski.
THEA 061. Intermediate Special Project in Production Dramaturgy
Production dramaturgy in connection with a production complete on or off campus. By individual arrangement between the student and the department faculty.

Prerequisites: THEA 021, and 051.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 062. Production Ensemble IV

Available by audition or consent of instructor to students who have successfully completed THEA 022,042 , and 052.
1 credit.
Fall 2014. Torra.
THEA 064. Advanced Special Project in Scenography, Sound, and Technology
A portfolio design or other design project in connection with a production completed on or off campus. To be taken concurrently or following THEA 054A, THEA 054B, THEA 054C, THEA 054D, or THEA 054E. By individual arrangement between the student and the department faculty.
Prerequisites: Any course in the THEA 003-004 group, THEA 014 group, and THEA 034 group.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 072. Advanced Special Project in

## Acting

By individual arrangement with the acting or directing faculty for performance work in connection with department directing projects, honors thesis projects, or Senior Company. With faculty approval, acting in a production off campus may qualify for this credit.
Prerequisites: THEA 002A, THEA 002C, THEA 008 or 012 or 022, THEA 012A.
0.5 or 1 credit. CR/NC grade.

Fall and spring semesters. Staff.

## THEA 074A. Special Project: Senior Project in Set Design

This course is an independent study in set design. This special project will examine the forms and techniques of design applied in actual production. By individual arrangement under the mentorship of the design faculty for work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 004A, THEA 014A, THEA
034A, and THEA 054A.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 074B. Special Project: Senior Project in Lighting Design
This course is an independent study in lighting design. This special project will examine the forms and techniques of design applied in actual production. By individual arrangement under the mentorship of the design faculty for work in connection with department directing workshops,
honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 004B, THEA 014B, THEA
034B, and THEA 054B.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 074C. Special Project: Senior

 Project in Costume DesignThis course is an independent study in costume design. This special project will examine the forms and techniques of design applied in actual production. By individual arrangement under the mentorship of the design faculty for work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 004C, THEA 014C, THEA
034C, and THEA 054C.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 074D. Special Project: Senior

 Project in Integrated Media Design This course is an independent study in integrated media design. This special project will examine the forms and techniques of design applied in actual production. By individual arrangement under the mentorship of the design faculty for work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.Prerequisite: THEA 004D, THEA 014D, THEA 034D, and THEA 054D.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 074E. Special Project: Senior Project

 in Sound DesignThis course is an independent study in sound design. This special project will examine the forms and techniques of design applied in actual production. By individual arrangement under the mentorship of the design faculty for work in connection with department directing workshops, honors thesis productions, Production Ensemble, or Senior Company.
Prerequisite: THEA 004E, THEA 014E, THEA 034E, and THEA 054E.
0.5 or 1 credit.

Fall and spring semesters. Staff.

## THEA 075. Advanced Special Project in

 DirectingBy individual arrangement with the directing faculty. With faculty approval, directing or assistant directing off campus may qualify for this credit.
Prerequisites: THEA 001, THEA 015 or THEA
021, THEA 022, THEA 035, THEA 106.
Fall and spring semesters. Staff.

## THEA 091. Advanced Special Project in

## Production Dramaturgy

Production dramaturgy in connection with a production complete on or off campus. By individual arrangement between the student and the department faculty.
Prerequisites: THEA 001, 021, 051, and 061.
0.5 or 1 credit.

Fall and spring semesters. Staff.
THEA 092. Off-Campus Projects in Theater
Residence at local arts organizations and theaters.
Fields include management, financial and
audience development, community outreach, and stage and house management.
Prerequisites: appropriate preparation in the major.
1 credit.
Fall and spring semesters. Staff.
THEA 093. Directed Reading
1 credit.
Fall and spring semesters. Staff.
THEA 094. Special Projects in Theater 1 credit.
Fall and spring semesters. Staff.

## THEA 099. Senior Company

A workshop course emphasizing issues of collaborative play making across lines of specialization, ensemble development of performance projects, and the collective dynamics of forming the prototype of a theater company. Work with an audience in performance of a single project or a series of projects.
This course is required of all theater majors in their senior year and can not be taken for external examination in the Honors Program. Class members will consult with the instructor during spring semester of their junior year, before registration, to organize and make preparations. Course and honors minors may petition to enroll, provided they have met the prerequisites.
Prerequisites: THEA 001, 002A; any course in design; 015; 006, 025, or 035; 022; a 100-level seminar; and the completion of one three-course sequence in theater.
Fulfills a general requirement for all theater majors and minors.
1 credit.
Fall 2014. Swanson.

## Seminars

## THEA 102A/102B. Acting Capstone

By arrangment with the theater faculty.
This project will take place over the course of two semesters. The fall semester will consist of a series of workshops and assignments designed to further develop the critical and practical skills required for performance. This preparatory work in the fall
semester will be put to use in the spring through the production of a play or performed by the students and directed by the acting faculty. Fall 2014. Torra. Spring 2015. Torra.

THEA 106. Theater History Seminar
A comparative study of theater history from its origins through the 21st century, along with a critical examination of a given theatrical company as a case study. Emphasis on the coherence of specific performance traditions and periods, significant companies as well as individual artists, the placement of theatrical performance within specific cultural contexts, and their relevance to contemporary theatrical practice. Readings will include, but not be limited to, dramatic texts as one form of artifact of the theatrical event. The spring 2015 seminar will focus on the work of Ariane Mnouchkine and the Théâtre du Soleil.
Prerequisites: THEA 015.
Writing course.
2 credits.
Not offered 2014-2015.
THEA 121. Dramaturgy Seminar
How does a "monstre sacré" like Phaedra or Don
Juan repeat across the centuries? What does Joe Orton owe to Wycherley and Ralph Roister Doister? In this cross-temporal comparative study of the post-classical western dramatic canon, emphasis will be placed equally on works from famous "periods" (Spanish Golden Age, Restoration comedy, French Classicism, Sturm und Drang, etc.) and on examples of forgotten or usurped genres-e.g., masque, melodrama, ballad opera, le parade, tragicomedy, Grand Guignol. Readings will also include critical texts by Castelvetro, Jonson, Boileau, Rousseau, Diderot, Dryden, Lessing, Schiller, Hegel, Hugo, Kierkegaard, Strindberg, Shaw, Nietzsche, and others.
Prerequisites: THEA 001 or by permission of instructor.
Fulfills a general requirement for all theater majors and minors.
Writing course.
2 credits.
Spring 2015. Magruder.

## THEA 180. Honors Thesis Preparation

Credit either for honors attachments to courses or for honors thesis projects in directing, design, acting, and so on. By arrangement with the student's faculty adviser in theater.
THEA 180A. Honors Thesis Preparation in Acting.
THEA 180B. Honors Thesis Preparation in Directing.
THEA 180C. Honors Thesis Preparation in Playwriting.

Theater

THEA 180D. Honors Thesis Preparation in Design.
THEA 180E. Honors Thesis Preparation in Dramaturgy.
THEA 180F. Honors Thesis Preparation in Solo Performance.
THEA 180G. Honors Thesis Preparation in Performance Theory.
Fall and spring semesters. Staff.
THEA 181. Honors Thesis Project
Credit for honors thesis projects in directing, design, acting, and so on. By arrangement with the student's faculty adviser in theater.
THEA 181A. Honors Thesis Production in Acting.
THEA 181B. Honors Thesis Production in
Directing.
THEA 181C. Honors Thesis Production in
Playwriting.
THEA 181D. Honors Thesis Production in Design.
THEA 181E. Honors Thesis Production in Dramaturgy.
THEA 181F. Honors Thesis Production in Solo Performance.
THEA 181G. Honors Thesis Production in Performance Theory.
Fall and spring semesters. Staff.

## Directions to Swarthmore College

Swarthmore College is located 11 miles southwest of the city of Philadelphia in the Borough of Swarthmore, Pennsylvania. The College is just a 30 minute drive from Philadelphia. New York and Washington, D.C. are each about two hours away.

## DRIVING

From the NORTH (New Jersey Turnpike or I-95)
Take the New Jersey Turnpike to Exit 6 (I-276 West/Pennsylvania Turnpike). Follow I-276 West to Exit 20 (I-476 South, toward Philadelphia/Chester). Take I-476 South to Exit 3, Media/Swarthmore. At the bottom of the exit ramp turn left onto Baltimore Pike. (Directions continue below.)

From the SOUTH (I-95)
Follow I-95 North to Pennsylvania Exit 7 (I-476 North/Plymouth Meeting). Take I-476 to Exit 3 (Media/Swarthmore). At the bottom of the exit ramp turn right onto Baltimore Pike. (Directions continue below.)

## From the EAST (via the Pennsylvania Turnpike)

From Exit 333(Norristown), follow signs for I-476 South. Stay on I-476 approximately 17 miles to Exit 3 (Media/Swarthmore). At the bottom of the exit ramp turn left onto Baltimore Pike. (Directions continue below.)

From the WEST (via the Pennsylvania Turnpike)
From Exit 326(Valley Forge), Take I-76 East (Schuylkill Expressway), about 4 miles to I-476 South. Take I-476 approximately 12 miles to Exit 3 (Media/Swarthmore). At the bottom of the exit ramp turn left onto Baltimore Pike. (Directions continue below.)

## From the AIRPORT

Take I-95 South. Continue to Exit 7 (I-476 North/Plymouth Meeting). Take I-476 North to Exit 3 (Media/Swarthmore). At the bottom of the exit ramp turn right onto Baltimore Pike. (Directions continue below.)

## Continue to the Visitor's Center

Stay in the right lane and in less than $1 / 4$ mile turn right onto state Route 320 South. At the first light turn right to stay on state Route 320. Proceed through two traffic lights on College Avenue, and then turn right into the first driveway on your right toward visitor parking at the Benjamin West House. The Benjamin West House is the College's visitor center and is open 24 hours a day.

## Continue to the Admissions Office

Stay in the right lane and in less than $1 / 4$ mile turn right onto state Route 320 South. At the first light turn right to stay on state Route 320. At the next light turn right onto College Avenue. On College Avenue take the first right onto Cedar Lane. At the next stop sign turn left onto Elm Avenue. Turn left onto Whittier Place, marked by stone pillars. Proceed to the end of Whittier Place and turn right into the DuPont parking lot, beside the Science Center. After parking in the DuPont parking lot, it is a short walk to the Admissions Office in Parrish Hall. Follow the path in front of the Science Center, continue past Kohlberg Hall, and you will see the back entrance of Parrish straight ahead. The Admissions Office is on the second floor.

## TRAIN

The College is readily accessible from Philadelphia by train. Amtrak trains from New York and Washington, D.C. arrive hourly at Philadelphia's 30th Street Station. From 30th Street Station, the SEPTA Media/Elwyn Local takes approximately 23 minutes to reach the Swarthmore station, which is adjacent to campus.

## AIR

An express train runs from the Philadelphia International Airport to 30th Street Station, where you can take the SEPTA Media/Elwyn Local train directly to the Swarthmore campus. Taxi service is also available.

Index

Absence from examinations, 8.4
Academic misconduct, 6.1.1, 6.8
Academic support, 6.7.3
Administration and staff, 14
Administrative divisions, 14.1
Admissions, 3
Advanced Placement, 3.5
Advanced standing, 3.5, 7.6
Advancement Services, 14.1, 14.10.1
Advising, 6.7, 7.4
Alumni and Gift Records, 14.1, 14.10.1
Alumni Association officers, 12
Alumni Council, 12
Alumni Relations, 12, 14.1, 14.10.2
Alumni, total, 12
Annual and Parent Giving, 14.1, 14.10.3
Associate dean for academic affairs, 14.1, 14.9
Associate dean of diversity, inclusion, and community development, 14.1, 14.9
Associate provost for educational programs and curriculum support, 14.1, 14.28
Associate provost for faculty development and outreach, 14.1, 14.28
Athletics, 6.5.3
Attendance at classes, 7.10, 8.1
Auditing courses, 8.3
Awards and prizes, 17.4
Bachelor of arts degree, 9.1
Bachelor of science degree, 9.1
Bequests, 2.1
Black Cultural Center, 6.6.1, 14.1, 14.9
Board of Managers, 11
Bookstore, 14.1, 14.3
Business Office, 14.1, 14.7
Calendars, see preface
Capital Giving, 14.1, 14.10.3
Career Services, 6.7.6, 14.1, 14.4
Center for Social and Policy Studies, 14.1, 14.5
Cocurricular opportunities, 6.5
Code of Conduct, 6.1.1
College entrance examinations, 3.1
Communications Office, 2.4, 14.1, 14.6
Community-based learning, 6.6.5
Comprehensive examinations, 7.1, 9.1
Computing services, see Information Technology Services
Controller's Office, 14.1, 14.7
Cooper (William J.) Foundation, 2.6
Cooperation with neighboring institutions, 7.13
Cornell Science and Engineering Library, 2.2, 14.1, 14.24 .2

Corporate, Foundation, and Government Relations, 14.1, 14.10.3
Corporation, officers of, 10
Counseling and Psychological Services 6.3.3, 14.1, 14.8

Course numbering system, 20
Creative arts, 6.5.2, 7.12
Credit/no credit, 8.2.3
Cross-listed course rules, 7.2
Curriculum, 1.2, 7

Dean of Students Office, 14.1, 14.9
Degree requirements, 9
Degrees conferred, 16
Degrees offered, 9
Development, 14.1, 14.10.3
Dining Services, 6.2.3, 14.1, 14.11
Directed reading, 7.8.1
Directions for correspondence, see preface
Directions for reaching the College, see endnote
Disability services, 6.7.3, 14.1, 14.9
Distribution requirements, 7.2
Divisions (academic), 7.2
Divisions and departments (administrative), 13.3
Domestic exchange, 7.14
Drop/add, 8.3
Emeriti faculty, 13.1
Endowed chairs, 18
Endowment, 2.1
Enrollment statistics, 19
Environmental Services, 14.1, 14.12
Equal Opportunity Office, 14.1, 14.20
Equal Opportunity statement, see preface
Examinations, 8.4
Exceptions to the 4-year program, 7.6
Exchange programs, 7.13
Exclusion from the College, 8.8
Expenses, 4
Extracurricular activities, 6.5
Facilities management, 14.1, 14.12
Faculty advisers, 6.7.2
Faculty and other instructional staff, 13.2
Faculty regulations, 8
Fees (tuition, residence, etc.), 4
Fellowships, 17.6
Fellowships and Prizes Office, 14.1, 14.9
Final examinations, 8.4.1
Financial aid, 5
Footnote key, 20
Foreign language requirement, 9.1
Fraternities, 6.6.2
Friends Historical Library, 2.2.1, 14.1, 14.24.4
Gender education, 14.1, 14.9
Geographic distribution of students, 19.2
Gift Planning Office, 14.1, 14.10.3
Grades, 8.2
Graduation requirements, 7, 9
Grounds, 2.5.5, 14.1, 14.2
Health Sciences Office, 6.7.4, 7.11, 14.1, 14.15
Health Services, 6.3.2, 14.1, 14.168
Honors examiners, 7.5, 15
Honors Program, 7.5
Housing, 6.2.1
Human Resources, 14.1, 14.17
Incomplete grade policies, 8.2.2
Independent study, 7.8.1
Information Technology Services, 2.3, 14.1, 14.20
Institutional Research Office, 14.1, 14.21
Insurance, 6.2.2, 6.3.4

Intercultural Center, 6.6.3, 14.1, 14.9
Interdisciplinary work, 7.9
International admissions, 3.6
Investment Office, 14.1, 14.21
Lang Center for Civic and Social Responsibility, 6.5.5, 6.6.5, 14.1, 14.22

Leaves of absence, 8.5.1
Libraries, 2.2, 14.1, 14.24
List Gallery, 2.5.2, 14.25
Loans to students, 5.2
Maintenance, 14.1, 14.12
Map of College grounds, see endnote
Master's degrees, 9.2
McCabe Library, 2.2, 14.1, 14.24.1
Normal course load, 7.7
Observatory, see Physics and Astronomy
Occupational and environmental safety, 14.1, 14.12

Off-Campus Study Office 7.15, 14.1, 14.27
Office Services, 14.1, 14.7
Parking, regulations, 6.2.4
Pass/fail, see credit/no credit
Payroll, 14.1, 14.17
Physical education requirements, 7.2, 8.7
Planning and Construction, 14.1, 14.12
Post office, 14.1, 14.7
Prelaw advising 6.7.5
Premedical advising, 6.7.4, 7.11
President's Office, 14.1, 14.27
Provost's Office, 14.1, 14.28
Public Safety, 6.4, 14.1, 14.29
Publications, student, 6.5.4
Readmission to the College, 8.5.3
Registrar's Office, 14.1, 14.30
Registration, 8.3
Religious advisers, 6.6.4
Repeated course rules, 8.2.4
Residential life, 6.2, 14.1, 14.9
SAT, 3.1
Scholarships, 5.1, 5.4
Scott Arboretum, 2.5.5, 14.1, 14.31
Secretary of the College, 14.1, 14.6
Senior Year Rule, 7.6.1
Sharples Dining Hall, 6.2.3
Social Affairs Committee, 6.5.1
Sophomore Plan, 7.2
Special major, 7.4.1
Standing committees of the faculty, 13.4
Student accounts, 4.5, 14.1, 14.7
Student activities, 6.5, 14.1
Student conduct, 6.1.1, 14.1, 14.9
Student conduct system, 6.8
Student Council, 6.5.1
Student employment, 5.3
Student exchange programs, 7.14
Student Right to Know, 7.16

Student rights, 6.1.1
Student-run courses, 7.8.2
Study abroad, see Off-Campus Study Office
Summer programs, 14.1, 14.2
Summer school work, 8.6
Swarthmore College Peace Collection, 2.2.1, 14.1, 14.24 .5

Swarthmore Foundation, 6.6.5
Tarble Social Center, 6.6.6
Teacher certification, see Educational Studies
Transfer, application process, 3.7
Transfer credit, 7.2, 8.6
Tuition and other fees, 4.1
Twenty-course credit rule, 7.2
Underhill Music and Dance Library, 2.2, 14.1, 14.24.3
van de Kamp Observatory, 2.5.1, see also Physics and Astronomy
Vice President for Communications, 14.1, 14.6
Vice President and Dean of Admissions, 14.1, 14.2
Vice President for Development and Alumni Relations, 14.1, 14.10
Vice President for College and Community Relations and Executive Assistant to the President, 14.1, 14.27
Vice President for Facilities and Services, 14.1, 14.12

Vice President for Finance and Treasurer, 14.1, 14.13

Vice President for Human Resources, 14.1, 14.17
Withdrawal from the College, 4.3, 8.5.2
Withdrawal from courses, 8.2, 8.3
Women's Resource Center, 6.6.7
Worth Health Center, 6.3.1
Writing Center, 6.7.3

Notes

Notes

Notes


[^0]:    *All papers and projects must focus on gender and sexuality studies.

