

ENGINEERING COURSE OF STUDY

Spring 2019: Updated January 30, 2019

This form is intended to serve as a helpful worksheet to ensure you will complete all of the requirements for the Engineering major. *You do not need to submit the form as part of your Sophomore Plan, but your advisor may ask to go over it with you during your advising meeting.*

Important notes:

- All courses taken to satisfy an Engineering major requirement must be taken for a grade, except for those taken during the first semester at Swarthmore.
- Students interested in off-campus study should be aware that Engineering classes taught at other institutions typically transfer in at 0.75 credits unless they have a lab component.

1. List the semester in which you will be taking (or have already taken) your seven core courses:

ENGR 006	<u>Spring</u> _____	ENGR 011	<u>Fall</u> _____
ENGR 012	<u>Spring</u> _____	ENGR014	<u>Spring</u> _____
*ENGR 015	<u>Fall</u> _____	OR	*ENGR 019 <u>Spring/Fall</u> _____
ENGR 041	<u>Fall</u> _____	ENGR 090	<u>Spring 2021</u> _____

** Either ENGR 015 or 019 may be taken as a core course. If both are taken, one may count as an elective.*

2. List the semester in which you will be taking (or have already taken) your eight required credits of math and science, and provide course numbers where appropriate.

*MATH 015 _____	PHYS _____
*MATH 025 or 026 _____	PHYS _____
*MATH 033, 034, or 035 _____	BIO ___ OR CHEM _____
*MATH 043 or 044 _____	Fourth science: _____
Fifth MATH _____	Fifth science: _____

** You must have either placement or credit for each line of MATH courses marked with an asterisk above. If you received placement but not credit, you still need a total of eight credits to satisfy the math/science requirement.*

3. On the next page, check the boxes for the Engineering courses you plan to take in the next two years. Including your seven core courses, you should have a total of twelve credits in Engineering.

**DEPARTMENT OF ENGINEERING
ANTICIPATED COURSE OFFERINGS
FALL 2019 – SPRING 2021**

Offerings with hyphens ([–]), do not count towards the 12 required courses for the Engineering major, nor the 5 required courses (2 or 3 core and 2 or 3 electives) for the minor.

FALL 2019	SPRING 2020
<input type="checkbox"/> [–] ENGR 003: Problems in Technology <input type="checkbox"/> [] ENGR 011A: Electric Circuits I <input type="checkbox"/> [] ENGR 011B: Electric Circuits II <input type="checkbox"/> [] ENGR 015A: Digital Sys & Comp. Eng Fund. <input type="checkbox"/> [] ENGR 015B: Design Digital & Embedded Sys <input type="checkbox"/> [] ENGR 028: Mobile Robotics <input type="checkbox"/> [] ENGR 035: Solar Energy Systems <input type="checkbox"/> [] ENGR 041: Thermofluid Mechanics <input type="checkbox"/> [] ENGR 055: Statistical Signal Processing <input type="checkbox"/> [] ENGR 056: Modeling & Optimization for Engineering <input type="checkbox"/> [] ENGR 059: Mechanics of Solids <input type="checkbox"/> [] ENGR 060: Structural Analysis <input type="checkbox"/> [] ENGR 072: Electronic Circuit Applications <input type="checkbox"/> [] ENGR 078: Communication Systems <input type="checkbox"/> [] Other: _____	<input type="checkbox"/> [–] ENGR 004A: Environmental Protection <input type="checkbox"/> [] ENGR 006: Mechanics <input type="checkbox"/> [] ENGR 012: Linear Physical Systems Analysis <input type="checkbox"/> [] ENGR 014: Experimentation for Engineering Design <input type="checkbox"/> [] ENGR 019: Numerical Methods for Engr Apps. <input type="checkbox"/> [] ENGR 027: Computer Vision <input type="checkbox"/> [] ENGR 029: Embedded Systems <input type="checkbox"/> [] ENGR 052: Algorithmic Design of Structures <input type="checkbox"/> [] ENGR 062: Structural Design <input type="checkbox"/> [] ENGR 071: Digital Signal Processing <input type="checkbox"/> [] ENGR 083: Fluid Mechanics <input type="checkbox"/> [] ENGR 086: Dynamics of Mechanical Systems <input type="checkbox"/> [] Other: _____ <input type="checkbox"/> [] Other: _____

FALL 2020	SPRING 2021
<input type="checkbox"/> [–] ENGR 007: Art of Engineering of Structures <input type="checkbox"/> [] ENGR 011A: Electric Circuits I <input type="checkbox"/> [] ENGR 011B: Electric Circuits II <input type="checkbox"/> [] ENGR 015A: Digital Sys & Comp. Eng Fund. <input type="checkbox"/> [] ENGR 015B: Design Digital & Embedded Sys <input type="checkbox"/> [] ENGR 019: Numerical Methods for Engr Apps. <input type="checkbox"/> [] ENGR 028: Mobile Robotics <input type="checkbox"/> [] ENGR 041: Thermofluid Mechanics <input type="checkbox"/> [] ENGR 053: Inclusive Engineering Design <input type="checkbox"/> [] ENGR 057: Operations Research <input type="checkbox"/> [] ENGR 059: Mechanics of Solids <input type="checkbox"/> [] ENGR 063: Water Quality & Pollution Control <input type="checkbox"/> [] ENGR 075: Electromagnetic Theory I <input type="checkbox"/> [] ENGR 084: Heat Transfer <input type="checkbox"/> [] Other: _____	<input type="checkbox"/> [] ENGR 006: Mechanics <input type="checkbox"/> [–] ENGR 010: Fundamentals of Food Engineering <input type="checkbox"/> [] ENGR 012: Linear Physical Systems Analysis <input type="checkbox"/> [] ENGR 014: Experimentation for Engineering Design <input type="checkbox"/> [] ENGR 025: Principles of Computer Architecture <input type="checkbox"/> [] ENGR 027: Computer Vision <input type="checkbox"/> [] ENGR 058: Control Theory & Design <input type="checkbox"/> [] ENGR 066: Environmental Systems <input type="checkbox"/> [] ENGR 073: Physical Electronics <input type="checkbox"/> [] ENGR 081: Thermal Energy Conversion <input type="checkbox"/> [] ENGR 091: Biomedical Signals <input checked="" type="checkbox"/> [X] ENGR 090: Senior Design <input type="checkbox"/> [] Other: _____ <input type="checkbox"/> [] Other: _____ <input type="checkbox"/> [] Other: _____