Plants make life on Earth as we know it possible. They provide us with food, energy, wood, paper, fabrics, and the oxygen we breathe. The green branch of the tree of life is beautiful and colorful and defines the environment we live in. This course will explore how plants grow and develop and how they interact with other organisms and the environment in natural and agricultural systems. We will explore a couple of interrelated topics in plant biology ranging from genetics to GMOs, from molecules to ecosystems. The course will be taught using active discussions, small group work, and lab exercises where we’ll play with plants. By the end of the course you should have a better understanding of a range of questions which may include (but are not limited to):

- How can we use leaves and color change to explain key principles of science?
- Why do plants need fertilizer and what is in fertilizer?
- What are biofuels and how are they made?
- What molecular mechanisms underlie Mendel’s pea plant traits?
- Does agricultural intensification increase greenhouse gas emissions?
- Flowers have beautiful shapes with very regular patterns. How do flowers develop?
- What makes the patterns you see on Indian Corn and other variegated plants? And what do these patterns have to do with jumping genes?
- What is a GMO, how are they made, and are they safe?
- How do plants grow towards light or gravity?
- How are plants domesticated? What actually changes during domestication?

The answers to these questions will provide insights into fundamental biological principles. Many of these insights are not plant specific – they apply to all living organisms. No background in biology is assumed; just bring your curiosity and enthusiasm.

**Nick Kaplinsky** teaches plant biology at Swarthmore College. His research interests focus on understanding how plants sense and respond to high temperatures at a cellular level. Nick teaches molecular and cellular biology, plant biology, genomics, and plant biotechnology courses.

Nick received his B.A. from Reed College and his Ph.D. at UC Berkeley. Nick's postdoctoral work was completed at the Carnegie Institution of Washington, located in Stanford, CA.
What is Islam?
9:00 a.m.-3:00 p.m.
October 26th and December 7th (Wednesdays)

How does one begin to make sense of the varied and often contradictory range of human experiences and historical phenomena used to define Islam? What is “Islamic” about Islamic politics, Islamic art, architecture, or Islamic philosophy? Is Islam simply what Muslims do or is it a set of aspirational values and transcendent moral principles? Can we speak of one Islam or are there many? Is it possible to distinguish between aspects of Islamic religion and the “Islamicate” (or Islamic culture)? How is Islam conceived of differently within public discourses than other religious traditions and to what end and to whose benefit?

This course is designed as a general survey of primary texts (in translation) that are illustrative of recurrent themes in Islamic religious thought, history, and cultural practice. This course attempts to develop a broad understanding of the religious interpretations and texts that underlie the diverse expressions of Islam in a wide range of historical, social, and cultural contexts—most notably in our contemporary world. This course will focus on the examination and discussion of the religious sources that have fundamentally contributed to Muslim self-definitions (Qur’ān, hadīth, sīra “biography of the Prophet Muhammad”, fiqh “Islamic Law”, tafsīr “Qur’ānic commentary”). Since discussion of primary these texts does not reduce the need for historical study of Islamic civilization, this course will utilize a chronological framework to emphasize the ways in which these sources have contributed to and continue to inform the development of Islamic social, cultural and political institutions. The goal of the course is to develop a depth of understanding and penetration into Islam’s intrinsic religious sensibilities through self-conscious reflections on Islamic social, cultural and intellectual traditions.

Tariq al-Jamil is Associate Professor and Chair of Religion and Islamic Studies at Swarthmore College. His research and publications have focused on Shi’ism and inter-communal violence, religious dissimulation, the transmission of knowledge in medieval Islam, and gender, sexuality, and the body in Islamic law and social practice.

He received his B.A. from Oberlin College, M.T.S. from Harvard University, and M.A. and Ph.D. from Princeton University.
Globalization

9:00 a.m.-3:00 p.m

March 1st and March 29th, (Wednesdays)

This course examines globalization along its diverse but inter-related dimensions, including economic, political, and environmental globalization. It introduces the participant to the concept and phenomenon of globalization, which is the set of processes that lead to the extensive and intense interconnectedness and interdependence of different parts of the world. Today we live in a world that is highly interconnected in an increasing number of ways. What is local can easily globalize, and what is global has important local repercussions. While “governance” could once be used synonymously with “government,” today many influential actors other than governments have authority over issues of global concern, such as international trade.

The course addresses the following issues:

1- What is globalization? How does current period of globalization differ from its historical forms?

2- Exercise: Measuring globalization.

3- The increasing importance of non-state actors and international organizations with an emphasis on non-governmental organizations as well as an introduction to the following international organizations: the United Nations, the World Trade Organization, the World Bank and the IMF.

4- Is global cooperation lagging in some areas? Case: Global climate change and how it is governed.

5- Ethics of globalization: Do we have responsibilities toward "distant strangers"?

**Ayse Kaya** is currently Associate Professor of Political Science at Swarthmore College. She researches and teaches on globalization and international political economy, particularly multilateral economic institutions with a focus on the International Monetary Fund & the World Bank, the impact of the large emerging economies (BRICS) on the multilateral system, global inequality & poverty, and the international political ramifications of the 2008 global financial crisis.

Ayse has a B.A. from Wellesley College and a M.Sc in Comparative Politics and a PhD in Government from the London School of Economics.