Science Conversation

Jill Fisher, Regents Science 260
507-786-3120
fisher@stolaf.edu
wp.stolaf.edu/science-conversation (http://wp.stolaf.edu/science-conversation)

The Science Conversation brings together students and faculty with a broad range of academic interests for a critical exploration of science within its historical, cultural, and social contexts. The program encourages a philosophically and theologically informed appreciation for the development of science, the relationship between reason and faith, questions of meaning and purpose, and the complex interplay of science and society. It is designed to illuminate the distinctive character of science and its relevance to the challenges facing our world.

This yearlong program for a cohort of 24 sophomores consists of three courses (fall semester, Interim, and spring semester) and follows a "great books" approach with seminar-style discussions. Primary texts by influential figures are read alongside secondary sources for analysis and overview. During the Interim, students and faculty make science come alive by performing hands-on laboratory experiments while considering their intellectual and historical significance. In a broader sense, the Science Conversation seeks to help reunite the sciences and humanities, viewing the scientific enterprise in the context of the liberal arts.

Admission to the Program

All rising sophomores are invited to apply for admission to the Science Conversation, regardless of major or intended major. The program strives for the broadest possible mix of backgrounds and interests. Faculty members from the Science Conversation steering committee read and evaluate the applications. Admission to the program is based on the quality of the application essays and on the applicant's potential to benefit from and contribute to:

- a seminar-style, discussion-based learning environment;
- a primary texts approach;
- an interdisciplinary perspective.

Applications are typically due in early March for the following academic year. See the program's web page (http://wp.stolaf.edu/science-conversation).

Course Equivalents for General Education Requirements

Students who complete SCICN 213, SCICN 215, and SCICN 217 fulfill the following general education requirements:

- History of Western Culture [HWC] (one course)
- Biblical and Theological Studies - Theology [BTS-T] (one course)
- Human Behavior and Society [HBS] (one course)
- Scientific Exploration and Discovery **OR** Integrated Scientific Topics [SED or IST] (one course)
- Writing [WRI] (one course)

Courses

SCICN 213: ***The Rise of Modern Science: Origins and Revolutions***
This course examines the development of modern science as revealed by primary texts and analysis of key episodes. Beginning with Aristotle, Copernicus, and Galileo, students gain a deeper understanding of the ideas, personalities, and events that shaped the emergence of the modern scientific view of the natural world. The course considers the historical, philosophical, and theological dimensions of major revolutions in science along with important contemporary developments. Offered annually in the fall semester.

SCICN 215: ***The Well-Ordered Universe: Patterns and Models in Science***
This course engages students in scientific inquiry while investigating its broader significance. Students perform experiments from a variety of disciplines to encounter landmark ideas and to investigate the range of quantitative approaches used to proceed from raw data to conclusions. The human ability to recognize patterns and develop models is examined to understand scientific methods and to assess the power, limits, and current status of the natural and behavioral sciences. Offered during Interim.
Prerequisite: SCICN 213.

SCICN 217: ***The Cultural Context: Science and Society***
This course examines the mutual influences of science and society while exploring the historical, political, economic, and religious aspects of these influences. It concerns the institutional settings that shape the practices of science and the vocation of scientists. It analyzes SCICN 213 and SCICN 215. Offered annually in the spring semester.

Faculty

Director, 2016-2017
Arthur J. Cunningham
Associate Professor of Philosophy
philosophy of physics; philosophy of science; science and religion

Joshua R. Anderson
Visiting Assistant Professor of Political Science and Environmental Studies
American politics; political philosophy; history of science

Brian Borovsky
Associate Professor of Physics
surface science; friction and contact mechanics; micro/nanoscale applied physics

Gregory A. Walter
Associate Professor of Religion
theology