History and Philosophy of Science

Courses in this area emphasize the historical development of science, the philosophical foundations of scientific thought, and scientific thought, and the relationship between science and culture. There are many graduate programs in the history and philosophy of science - usually these are administered by the History or Philosophy departments rather than the science program. As a result, students seeking to pursue graduate work in this field should strive to build a broad background in history and/or philosophy courses outside of Interdisciplinary Science in addition to their required science courses. The topics emphasized in this area of focus may also serve the needs of dual-concentrators who wish to combine their studies of science with their work in other concentrations such as Philosophy, Social and Historical Inquiry, or Writing. Students electing this area of focus may also be interested in a program such as Cornell's graduate degree in "Science & Technology Studies." The field of "science studies" is concerned with the study of science and technology as historical and cultural products. Applicants to the program have a variety of backgrounds in the basic sciences, engineering, history, philosophy, sociology, or politics.

The courses listed below satisfy the minimal requirements, and students are encouraged to complete a wide range of electives beyond these requirements and to consult with their Interdisciplinary Science academic advisor to be assured that the appropriate sequence of elective courses, internships, and senior work project are chosen for their desired post-graduate experiences.

Requirements:

LSCI 2661 Energy and Sustainability (integrative course for IS majors)
LSCI 3009 Methods of Scientific Inquiry (preparation for senior work)

Two Mathematics courses

Required:
LMTH 2155 Mathematical Models in Nature

One from the list below:
LMTH 2022 Mathematics of Game Theory
LMTH 2100 Ethnomathematics
LMTH 3017 Infinity
LMTH 3006 Math Tools for Social and Natural Sciences

One Laboratory Course

LSCI 2011 Chemistry of the Environment
LSCI 3211 Biodiversity Achieved

Three Foundation Courses (in at least two science disciplines)

Required:
LSCI 2600 Foundations of Physics
LSCI 2104 The Quantum Universe

One from the list below:
LSCI 2006 Chemistry of Life
LSCI 2040 Genes, Environment, and Behavior

Two Intermediate Courses

Required: LSCI 3004 Space, Time, and Einstein

One from the list below
LSCI 3118 What is Science?
LSCI 3211 Biodiversity Achieved
LSCI 4005 Nanotechnology

Two Elective Courses

At least one elective must be outside of Interdisciplinary Science. Electives are selected from the list below or in consultation with the academic advisor. Specific course offerings may change.

LSCI 2779 Science and Religion

LSCI 2500 The Science and Politics of the Atom Bomb
LSCI 2803 Science of Music and Sound

LPHI 2020 Philosophy 2: Modern Philosophy
LPHI 3122 Philosophy of Science
LHIS 4512 Historiography and Historical Method