

REQUIREMENTS - BACHELOR OF ARTS DEGREE CONCENTRATION IN LOGIC AND PHILOSOPHY OF SCIENCE

Units required for the major: 36

The concentration in Logic and Philosophy of Science is designed for students who are interested in the general nature of scientific inquiry and/or philosophical problems that arise within specific fields like psychology, biology, and physics. It is a good choice for the science-oriented philosophy major and will help to prepare those who are interested in studying logic and philosophy of science at the graduate level. This concentration also provides an excellent double major opportunity for science students interested in broadening and deepening their grasp of their chosen field.

The concentration gives students an understanding of logical theory and how logic applies to scientific and philosophical reasoning. It will also provide an understanding of issues in the philosophy of science. These include the nature of scientific explanation, the nature of scientific evidence, and the process of confirming and revising scientific theories. Philosophy of science also explores traditional philosophical questions as they arise in the context of scientific inquiry. Some of these are: Do we really know that the theoretical entities of science exist? What is the difference between science and pseudo-science? Do different sciences give us fundamentally different ways of understanding the world? Is science converging on truth or will it always undergo revolutionary changes that reject widely accepted theories of the past? Does scientific inquiry have intrinsic value or are there questions that scientists should not ask?

A. Required Lower Division Courses (6 units)

- (3) PHIL 25 History of Ancient Philosophy
- (3) PHIL 27 History of Early Modern Philosophy

B. General Upper Division Courses (9 units)

- (3) PHIL 154 Philosophy of Language **OR**
PHIL 176 20th Century Anglo-American Philosophy
- (3) PHIL 180 Theory of Knowledge (6 units in philosophy or instructor permission)
- (3) PHIL 181 Metaphysics (6 units in philosophy or instructor permission)

C. Logic (6 units)

- (3) PHIL 60 Symbolic Logic I
- (3) PHIL 160 Symbolic Logic II (MATH 31, PHIL 60, or instructor permission)

D. Philosophy of Science (9 units)

- (3) PHIL 104 Bioethics **OR**
PHIL 105 Science and Human Values
- (3) PHIL 125 Philosophy of Science
- (3) PHIL 153 Philosophy of Mind (3 units in philosophy or instructor permission)

E. Upper Division Electives (6 units)

Any courses listed above that are not taken to satisfy the above requirements; other upper division philosophy courses; courses in other departments (with consent of Department Chair or program coordinator).