PHILOSOPHY, BACHELOR OF ARTS (B.A.) WITH A CONCENTRATION IN PHILOSOPHY AND SCIENCE

The Bachelor of Arts in Philosophy with a concentration in philosophy and science is an interdisciplinary curriculum requiring a minimum of 120 credits, with at least 30 of those credits in the major area, at least half of which must be upper-level.

Students with a strong interest in the philosophy of science and the relation between philosophy and science (and those considering graduate work in an area of science) will probably want to choose the philosophy and science concentration.

Student learning outcomes

Philosophy core outcomes

Upon completing this program, students will be able to:

1. Demonstrate a good knowledge of and facility with the methods and concepts of modern, analytic philosophy
2. Demonstrate a good knowledge of the current state of academic discussion of some of the central philosophical topics
3. Demonstrate some knowledge of the history of philosophy, including both major themes and movements and some specific figures and systems
4. Demonstrate the ability to think critically and systematically about philosophical problems, both abstract and practical, and to write clearly and cogently about them
5. Demonstrate the ability to construct and analyze arguments clearly and cogently, independently of their subject matter

Philosophy and science concentration-specific outcomes

1. Demonstrate a good knowledge of philosophical questions about scientific inquiry including but not limited to questions about scientific explanation, the confirmation and disconfirmation of scientific theories, and what distinguishes science from non-science
2. Demonstrate a good knowledge of a particular area of science including the research methods of that area of science

Degree requirements for Philosophy, Bachelor of Arts (B.A.) with a concentration in philosophy and science

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PHIL 103</td>
<td>Ancient Greek and Medieval Western Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 104</td>
<td>Modern Western Philosophy</td>
<td>3</td>
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</table>

Select two of the following:

- PHIL 300 Philosophical Concepts
- PHIL 301 Metaphysics
- PHIL 302 Epistemology
- PHIL 303 Philosophy of Language
- PHIL 304 Philosophy of Mind
- PHIL 320 Philosophy of Law
- PHIL 327 Normative Ethics
- PHIL 328 Metaethics
- PHIL 335 Social and Political Philosophy

Scientific focus areas

Anthropology

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>ANTH 302</td>
<td>Archaeological Theory</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 303</td>
<td>Archaeological Methods and Research Design</td>
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Select six additional upper-level credits in ANTH courses

Bioinformatics

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>LFSC 301</td>
<td>Integrative Life Sciences Research</td>
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</table>

Select six upper-level credits in BNFO courses.
Chemistry

Course | Title | Hours
---|---|---
CHEM 309 | Quantitative Analysis | 
or INSC 300 | Experiencing Science | 
Select six additional upper-level credits in CHEM courses

Computer science

Course | Title | Hours
---|---|---
CMSC 303 | Introduction to the Theory of Computation | 
Select six additional upper-level credits in CMSC courses

Economics

Course | Title | Hours
---|---|---
ECON 300 | Contemporary Economic Issues | 
Select six additional upper-level credits in ECON courses

Environmental studies

Course | Title | Hours
---|---|---
LFSC 301 | Integrative Life Sciences Research | 
Select six additional upper-level credits in ENVIS courses

Mathematical sciences

Course | Title | Hours
---|---|---
MATH 300 | Introduction to Mathematical Reasoning | 
Select six additional upper-level credits in MATH or STAT or OPER courses

Political science

Course | Title | Hours
---|---|---
POLI/SOCY 320 | Research Methods in Political Science | 
Select six additional upper-level credits in POLI courses

Psychology

Course | Title | Hours
---|---|---
PSYC 317 | Experimental Methods | 
Select six additional upper-level credits in PSYC courses

1

This course is restricted to the majors in the relevant program.

Sociology

Course | Title | Hours
---|---|---
POLI/SOCY 320 | Research Methods in Political Science | 
Select six additional upper-level credits in SOCY courses

Physics

Course | Title | Hours
---|---|---
PHYS 320 | Modern Physics | 
or INSC 300 | Experiencing Science | 
Select six additional upper-level credits in PHYS courses 
(or other appropriate courses approved by the Department of Philosophy)

Freshman year

Fall semester | Hours
---|---
UNIV 101 | Introduction to the University | 1
UNIV 111 | Focused Inquiry (satisfies general education UNIV foundations) | 3
Play course video for Focused Inquiry I | 
Experiential fine arts | 1-3
General education course | 3
General education course | 3
Open elective | 3

Term Hours: 14-16

Spring semester

HUMS 202 | Choices in a Consumer Society | 1
UNIV 112 | Focused Inquiry II (satisfies general education UNIV foundations) | 3
Play course video for Focused Inquiry II | 
General education course | 3
General education course | 3
Open electives | 6

Term Hours: 16

Sophomore year

Fall semester

PHIL 103 | Ancient Greek and Medieval Western Philosophy | 3
PHIL 104 | Modern Western Philosophy | 
or Modern Western Philosophy | 
PHIL 201 | Introduction to Ethics | 3
PHIL 211 | History of Ethics | 
or Ethics and Applications | 
or Ethics and Health Care | 
or Ethics and Business | 
PHIL 212 | or Ethics and Business | 
or Ethics and Business | 
or Ethics and Business | 
PHIL 213 | or Ethics and Business | 
or Ethics and Business | 
or Ethics and Business | 
PHIL 214 | or Ethics and Business | 
or Ethics and Business | 
or Ethics and Business | 
UNIV 200 | Advanced Focused Inquiry: Literacies, Research and Communication (satisfies general education UNIV foundations) | 3
Foreign language 101 | 3
Open elective (or select general education course if PHIL 201 was not selected above) | 3

Term Hours: 15

Spring semester

PHIL 104 | Modern Western Philosophy | 3
PHIL 103 | or Ancient Greek and Medieval Western Philosophy | 
or Ancient Greek and Medieval Western Philosophy | 
PHIL 222 | Logic | 3
Foreign language 102 | 3
General education course (select BOK to complete breadth of knowledge requirement) | 3
General education course (select BOK to complete breadth of knowledge requirement) | 3

Term Hours: 15

What follows is a sample plan that meets the prescribed requirements within a four-year course of study at VCU. Please contact your adviser before beginning course work toward a degree.
### Junior year

#### Fall semester

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<tr>
<th>Course</th>
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<tr>
<td>PHIL 331</td>
<td>Philosophy of Science</td>
<td>3</td>
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<tr>
<td>Open electives</td>
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Scientific focus area upper-level course 3

**Term Hours:** 15

#### Spring semester

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<tr>
<td>or PHIL 301</td>
<td>Epistemology or Philosophy of Language</td>
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<tr>
<td>or PHIL 302</td>
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<td>or PHIL 320</td>
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<td>or PHIL 327</td>
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<td>or PHIL 335</td>
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<tr>
<td>Open electives</td>
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Scientific focus area research methods course 3

**Term Hours:** 15

### Senior year

#### Fall semester

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<td>Open electives</td>
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Scientific focus area upper-level course 3

**Term Hours:** 15

#### Spring semester

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PHIL 490</td>
<td>Seminar in Philosophy</td>
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<tr>
<td>Open electives</td>
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**Term Hours:** 15

**Total Hours:** 120-122

PHIL 201 satisfies general education BOK for humanities/fine arts and AOI for diversities in the human experience. Students who chose this course will take additional electives to fulfill degree requirements.

The minimum number of credit hours required for this degree is 120.

**PHIL 101. Introduction to Philosophy. 3 Hours.**
Semester course; 3 lecture hours. 3 credits. An introduction to some of the main branches of philosophy. Some of the issues that might be addressed are: What is knowledge? Is reason or experience the basis for all knowledge? Can we have knowledge of the past or of the future? What is truth? Does God exist? Is there a mental realm separate from the material realm? Are the laws of nature deterministic? Do we have free will? What makes an action morally permissible? What is the proper role of the state in regulating our lives? This course is directed primarily at first- and second-year students.

**PHIL 103. Ancient Greek and Medieval Western Philosophy. 3 Hours.**
Semester course; 3 lecture hours. 3 credits. A survey of Western philosophy from the ancient Greeks (e.g., Socrates, Plato and Aristotle) through the medieval period (e.g., Augustine and St. Thomas Aquinas).

**PHIL 104. Modern Western Philosophy. 3 Hours.**
Semester course; 3 lecture hours. 3 credits. A survey of Western philosophy from the Renaissance to the 19th century (e.g., Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel and Marx).

**PHIL 201. Introduction to Ethics. 3 Hours.**
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: UNIV 112; or HONR 200 and one of ENGL 295 or HONR 250. An introduction to the main topics in moral philosophy. Includes a discussion of contemporary moral issues. Possible topics include the morality of abortion, animal rights, world hunger, pornography, capital punishment, sexual behavior, environmental ethics and reverse discrimination.

**PHIL 211. History of Ethics. 3 Hours.**
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 112 or both ENGL 295 and HONR 200. A philosophical investigation of the main concepts and theories of ethics and their application to fundamental moral questions, as illustrated by the ethical systems of such historically important Western philosophers as Plato, Aristotle, Augustine, Hume, Mill and Kant.

**PHIL 212. Ethics and Applications. 3 Hours.**
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 112 or both ENGL 295 and HONR 200. A philosophical investigation of the main concepts and theories of ethics, with applications to fundamental moral questions as they arise in different areas. Such problems as abortion, the welfare of animals, world hunger, pornography, capital punishment, nuclear defense, sexual behavior, environmental ethics and reverse discrimination may be used as illustrations.

**PHIL 213. Ethics and Health Care. 3 Hours.**
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 112 or both ENGL 295 and HONR 200. A philosophical investigation of the main concepts and theories of ethics, with applications to fundamental moral questions as they arise in health care. The following issues may be used as illustrations: abortion, euthanasia and the right to die, human experimentation, treating mental illness, genetic technologies, the concepts of health and disease, and the funding of health care.
PHIL 214. Ethics and Business. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 112 or both ENGL 295 and HONR 200. A philosophical investigation of the main concepts and theories of ethics, with applications to fundamental moral questions as they arise in business. The following issues may be used as illustration: affirmative action, investment in unethical companies or countries, product safety, whistle blowing and advertising.

PHIL 221. Critical Thinking. 3 Hours.
Semester course; 3 lecture hours. 3 credits. An introduction to inductive and deductive reasoning, with emphasis on common errors and fallacies.

PHIL 222. Logic. 3 Hours.
Semester course; 3 lecture hours. 3 credits. An evaluation of deductive arguments utilizing the methods of symbolic logic.

PHIL 230. Reason, Science and the Self. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Open to Honors College students only. The reasonableness of a belief often depends on the arguments that support it. One primary goal of this course is to sharpen the abilities to identify, analyze and assess arguments. Another primary goal is to show how to apply critical reasoning skills to philosophical explorations of the nature of science, knowledge and personal identity.

PHIL 250. Thinking About Thinking. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 112 or both ENGL 295 and HONR 200. An interdisciplinary course about thinking. Covers the development of the principles of reasoning, such questions as how thinking relates to behavior and brain activity and how to think about specific areas of our lives, such as science, morality, religion, the arts and the law.

PHIL 291. Topics in Philosophy. 1-4 Hours.
Semester course; variable hours. 1-4 credits. Prerequisite: as specified in the Schedule of Classes or written permission of instructor. An introductory study of an individual philosopher, a particular philosophical problem or a narrowly defined period or school. See the Schedule of Classes for specific topics to be offered each semester.

PHIL 300. Philosophical Concepts. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: PHIL 101, PHIL 103 or PHIL 104; and PHIL 221 or PHIL 222; and one more PHIL course; or permission of instructor. An introduction to basic philosophical concepts and distinctions to be used throughout various areas of philosophy. These concepts and distinctions include universals/particulars, realism/anti-realism, intension/extension, modality, possible worlds, analytic/synthetic, a priori/a posteriori, linguistic/mental content and internalism/externalism.

PHIL 301. Metaphysics. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: PHIL 101, PHIL 103 or PHIL 104; and PHIL 221 or PHIL 222; and one more PHIL course; or permission of instructor. An examination of central metaphysical issues. Topics may include free will and determinism, identity, time, causation, personhood, and universals and particulars.

PHIL 302. Epistemology. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: PHIL 101, PHIL 103 or PHIL 104; and PHIL 221 or PHIL 222; and one more PHIL course; or permission of instructor. An examination of central epistemological issues, for example, the problem of justification, empirical knowledge, perception, rationality and truth.

PHIL 303. Philosophy of Language. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: 9 credits in philosophy including PHIL 222 and 6 additional credits, at least 3 of which must be from PHIL 101, PHIL 103 or PHIL 104, or permission of the instructor. An examination of central issues in the philosophy of language; for example, the nature of meaning and reference, reductionism, properties of languages and the character of artificial symbols systems.

PHIL 304. Philosophy of Mind. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: PHIL 101, PHIL 103 or PHIL 104; and PHIL 221 or PHIL 222; and one more PHIL course; or permission of instructor. An examination of central issues in the philosophy of mind. Topics may include the mind-body problem, consciousness, the self, artificial intelligence and the language of thought.

PHIL 320. Philosophy of Law. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: 9 credits in philosophy, which must include PHIL 221 or PHIL 222, and one of PHIL 201, PHIL 211, PHIL 212, PHIL 213, or PHIL 214, or permission of instructor. A critical examination of the nature of law and criminal justice in the light of important human values. The following topics will be considered: the nature of law and legal reasoning, the legal enforcement of morality, and such controversies as punishment versus rehabilitation and the right to due process versus the need for public safety.

PHIL 322. Tibetan Buddhism. 3 Hours.
Semester course; 3 lecture hours. 3 credits. A basic introduction to the history, development and mythology of the Buddhism of Tibet focusing on the Indian heritage and shared basis of all Buddhist practices, a clear identification of the three vehicles found in Buddhism, and a careful consideration of the path of the Bodhisattva, the hero of Great Vehicle Buddhism. Crosslisted as: RELS 322.

PHIL 324. Indian Religious Traditions. 3 Hours.
Semester course; 3 lecture hours. 3 credits. A systematic analysis of the major theories of Indian religious and philosophical thought: Vedas, Upanishads, Gita, Charvaka, Jainism, Buddhism, the six systems of Hinduism and contemporary developments. Crosslisted as: INTL 324/RELS 324.

PHIL 326. Existentialism. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: PHIL 101, PHIL 103, PHIL 104, PHIL 201, PHIL 211, PHIL 212, PHIL 213, PHIL 214, PHIL 221 or PHIL 222. An examination of the nature of truth, freedom, responsibility, individuality and interpersonal relations as found in some principal writings of Kierkegaard, Nietzsche, Jaspers, Sartre, Heidegger, Camus, Buber and Marcel. Crosslisted as: RELS 326.

PHIL 327. Normative Ethics. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: PHIL 221 or PHIL 222; PHIL 201, PHIL 211, PHIL 212, PHIL 213 or PHIL 214; and 3 additional credits of philosophy; or permission of instructor. A study of issues in systematic normative ethics, including such topics as egoism, consequentialism, utilitarianism, deontology and the theory of the virtues.

PHIL 328. Metaethics. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: PHIL 222; PHIL 201, PHIL 211, PHIL 212, PHIL 213 or PHIL 214; and three additional credits of philosophy; or permission of instructor. A study of issues in the semantics and metaphysics of ethics. Such topics as the following will be discussed: the objectivity of ethical judgements, the semantic value of ethical judgements and the possibility of ethical knowledge.
PHIL 331. Philosophy of Science. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: 3 credits of philosophy and 6 credits of natural sciences courses. An examination of the bases of scientific inquiry in both the natural and social sciences; including a study of such topics as hypothesis formation and testing, and the nature of scientific laws, theories and explanations.

PHIL 335. Social and Political Philosophy. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: 9 credits in philosophy, which must include PHIL 221 or PHIL 222, and one of PHIL 201, PHIL 211, PHIL 212, PHIL 213, or PHIL 214, or permission of instructor. A critical examination of political power and of the relationship between the individual and society. Possible topics include: anarchism and the justification of having a state at all; political views about what sort of state is justified (e.g., conservatism, liberalism, communitarianism, feminism, Marxism); private vs. collective property; market vs. planned economies; democracy vs. totalitarianism; and civil disobedience and revolution.

PHIL 340. Philosophy for Children. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: two philosophy courses, which must include at least one of PHIL 101, 103 or 104. A service-learning course requiring at least 15 hours of service in which students will be required to lead philosophical discussions with primary/secondary schoolchildren. An analysis of perennial philosophical questions and problems with the aim of introducing them to children. Some of the questions that might be addressed include: What is happiness? What is justice? What is a mind? Can a mind exist apart from a body? Can machines think? What is time? What is knowledge? What are the limits of human knowledge?

PHIL 391. Topics in Philosophy. 1-4 Hours.
Semester course; variable hours. 1-4 credits. Prerequisite: as specified in the Schedule of Classes or permission of instructor. A study of an individual philosopher, a particular philosophical problem or a narrowly defined period or school. See the Schedule of Classes for specific topics to be offered each semester.

PHIL 412. Zen Buddhism. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 200 or HONR 200. A study of Zen Buddhism, including backgrounds in Indian philosophy and practice, development in China and Korea, and present-day Zen theory and practice in Japan and in Western countries. Crosslisted as: RELS 412/INTL 412.

PHIL 421. Aesthetics. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: PHIL 101, 103, 104, 201, 211, 212, 213, 214, 221 or 222. A critical survey of philosophies of art from antiquity to the 20th century. Topics include: the nature of art, creativity, aesthetic experience and aesthetic judgments.

PHIL 430. Philosophy of Religion. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: PHIL 101, PHIL 103, PHIL 104, PHIL 201, PHIL 211, PHIL 212, PHIL 213, PHIL 214, PHIL 221 or PHIL 222. An introduction to the major problems and questions of religion and reason. Special reference will be made to the nature of God, the nature of man, the problem of evil, the source of good, immortality and the basis of authority. Crosslisted as: RELS 430.

PHIL 440. Mysticism. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 200 or HONR 200. A critical analysis of the varieties of mysticism in world religions. Arguments for and against mysticism will be emphasized. Mysticism will be related to art, psychology, science, philosophy, theology and magic. Crosslisted as: RELS 440.