

BIOETHICS MINOR

Overview

The interdisciplinary minor in bioethics encompasses work in the fields of biology, natural science, philosophy, sociology and theology. It enables students to study topics in which the life sciences and ethics converge, such as: biological and chemical weapons, human stem cell research, global warming, human and animal experimentation, pollution, genetic screening and gene therapy, and human population growth.

The bioethics minor helps to prepare students for a range of future careers, or for advanced study in the health professions, the sciences, teaching, law, journalism, ministry, research, government or social work. For many students, the study of bioethics not only deepens their understanding of science and its impact on our lives, but also strengthens their ability to think broadly and critically, and to better see the vital integration of science and technology with individuals and the world around us.

Curriculum

Requirements

The minor in bioethics requires at least seven courses completed with a grade of "C" or better. The science requirement is satisfied by taking either four courses in Biology or three courses in the Natural Sciences. The Ethics requirement is satisfied by 1) completing the foundational course (PHIL 284 Health Care Ethics); 2) taking two elective courses (one at the 300-level); and 3) one interdisciplinary capstone course (BIET 395A, BIET 395B, BIET 395C, BIET 395E, BIET 396A, BIET 396B, BIET 396C, or BIET 396E). See below for more detailed information about which specific courses satisfy these requirements.

Please note that one of the three ethics courses must be taken at the 300-level. This is in addition to BIET 395A,B,C, or E or BIET 396A,B,C, or E one of the three ethics courses must be a 300-level course.

Code	Title	Hours
Science Requirement		
Students choose either Biology or Natural Sciences courses 8-9 to fulfill the Science requirement.		
<i>Biology (BIOL) Courses</i>		
All four (4) courses are required		
BIOL 101	General Biology I	
BIOL 111	General Biology I Lab	
BIOL 102	General Biology II	
BIOL 112	General Biology II Lab	
<i>Natural Sciences Courses</i>		
Choose three (3) of the following:		
ANTH 101	Human Origins	
ANTH 103	Biological Background Human Social Behavior	
ANTH 104	The Human Ecological Footprint	
ANTH 105	Human Biocultural Diversity	
ANTH 106	Sex, Science and Anthropological Inquiry	
ANTH 280	Evolution of Human Disease	
ANTH 303	People and Conservation	
ENVS 204	Gender, Health & Environment	
ENVS 207	Plants and Civilization	

ENVS 218	Biodiversity & Biogeography	
ENVS 223	Soil Ecology	
ENVS 224	Climate & Climate Change	
ENVS 226	Science & Conservation of Freshwater Ecosystems	
ENVS 273	Energy and The Environment	
ENVS 274	Chemistry of the Environment	
ENVS 280	Principles of Ecology	
ENVS 283	Environmental Sustainability	
ENVS 301	Environmental Health	
ENVS 385	Introduction to Global Health	
ENVS 387	Principles of Ecotoxicology	

Ethics Requirement

Foundations Course

PHIL 284	Health Care Ethics	3
Choose two (2) additional Ethics courses from the list below, one of which must be 300-level:		6

Philosophy

PHIL 287	Environmental Ethics	
PHIL 324	Topics in Ethics (Topic must be related to Bioethics)	
PHIL 355	Neuroethics	
PHIL 369	Philosophy of Medicine	
PHIL 389	Contemporary Issues (Topic must be related to Bioethics)	
PHIL 398	Capstone Seminar in Contemporary Philosophy (Topic must be related to Bioethics)	

Theology

THEO 192	Topics in Moral Problems (Topic must be related to Bioethics)	
THEO 204	Religious Ethics and the Ecological Crisis	
THEO 342	Perspectives on Life and Death	
THEO 343	Contemporary Christian Sexuality	
THEO 344	Theology and Ecology	
THEO 393	Seminar (Topic must be related to Bioethics)	

Health Systems Management

HSM 110	Healthcare in America	
HSM 210	Introduction to Global Healthcare Delivery	
HSM 220	Continuum of Healthcare Services	
HSM 230	Fundamentals of Health Equity	

Psychology

PSYC 235	Psychology of Human Sexuality	
PSYC 238	Gender & Sex Differences & Similarities	
PSYC 373	Health Psychology	

Sociology

SOCL 226	Science, Technology, & Society	
SOCL 225	Sociology of Health Care	
SOCL 270	Sociology of Science ¹	
SOCL 272	Environmental Sociology	
SOCL 278	Global Health	

Interdisciplinary Capstone Course

BIET 395A	Bioethics Minor Capstone: Philosophical & Anthropological Topics ²	3
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or BIET 395B	Bioethics Minor Capstone: Philosophical & Biological Topics
or BIET 395C	Bioethics Minor Capstone: Philosophical and Chemical Topics
or BIET 395E	Bioethics Minor Capstone: Philosophical & Environmental Science Topics
or BIET 396A	Bioethics Minor Capstone: Theological & Anthropological Topics
or BIET 396B	Bioethics Minor Capstone: Theological and Biological Topics
or BIET 396C	Bioethics Minor Capstone: Theological and Chemical Topics
or BIET 396E	Bioethics Minor Capstone: Theological & Environmental Science Topics

Total Hours **20-21**

¹ These courses count only when they address topics in bioethics.

² For example: Environmental Ethics; HIV/AIDS; Reproduction & Reproductive Technologies, Death & Dying, Neuroscience & Neuroethics). Prerequisites: Must have completed two of the science requirements and two of the ethics requirements.

Suggested Sequence of Courses

The below sequence of courses is meant to be used as a suggested path for completing coursework. An individual student's completion of requirements depends on course offerings in a given term as well as the start term for a major or graduate study. Students should consult their advisor for assistance with course selection.

Biology Track (For Biology, Biochemistry, & Neuroscience Majors)

Course	Title	Hours
Year 1		
Fall		
BIOL 101	General Biology I	3
BIOL 111	General Biology I Lab	1
Hours		4
Spring		
BIOL 102	General Biology II	3
BIOL 112	General Biology II Lab	1
Hours		4
Year 2		
Fall		
PHIL 284	Health Care Ethics	3
Hours		3
Year 3		
Fall		
Ethics Elective (any level)		3
Hours		3
Spring		
Ethics 300-level Elective		3
Hours		3

Year 4

Spring

BIET 395A	Bioethics Minor Capstone: Philosophical & Anthropological Topics	3
or BIET 395B	or Bioethics Minor Capstone: Philosophical & Biological Topics	
or BIET 395C	or Bioethics Minor Capstone: Philosophical and Chemical Topics	
or BIET 395E	or Bioethics Minor Capstone: Philosophical & Environmental Science Topics	
or BIET 396A	or Bioethics Minor Capstone: Theological & Anthropological Topics	
or BIET 396B	or Bioethics Minor Capstone: Theological and Biological Topics	
or BIET 396C	or Bioethics Minor Capstone: Theological and Chemical Topics	
or BIET 396E	or Bioethics Minor Capstone: Theological & Environmental Science Topics	

Hours **3**

Total Hours **20**

Life Sciences Track

Course	Title	Hours
Year 1		
Fall		
Life Science Course #1		3
Hours		3
Spring		
Life Science Course #2		3
Hours		3
Year 2		
Fall		
PHIL 284	Health Care Ethics	3
Hours		3
Spring		
Ethics Elective (any level)		3
Hours		3
Year 3		
Fall		
Life Science Course #3		3
Hours		3
Spring		
Ethics 300-level Elective		3
Hours		3

Year 4**Spring**

BIET 395A or BIET 395B or BIET 395C or BIET 395E or BIET 396A or BIET 396B or BIET 396C or BIET 396E	Bioethics Minor Capstone: Philosophical & Anthropological Topics or Bioethics Minor Capstone: Philosophical & Biological Topics or Bioethics Minor Capstone: Philosophical and Chemical Topics or Bioethics Minor Capstone: Philosophical & Environmental Science Topics or Bioethics Minor Capstone: Theological & Anthropological Topics or Bioethics Minor Capstone: Theological and Biological Topics or Bioethics Minor Capstone: Theological and Chemical Topics or Bioethics Minor Capstone: Theological & Environmental Science Topics	3
Hours		3
Total Hours		21

Double-Dipping Policy

- Students may not major and minor in the same discipline.
- Majors: Not less than 21 credit hours in the individual student's transcript must be unique to each major; that is, the courses in question are considered as actually fulfilling requirements of one major, not of more than one major.
- Minors and interdisciplinary minors: not less than 8 credit hours in the individual student's transcript must be unique to each minor; that is, the courses in question are considered as actually fulfilling requirements of one minor, not of more than one minor or major.

Learning Outcomes

Upon completion of the program, students will:

- Understand relevant scientific concepts, techniques, and methods as they relate to bioethical topics
- Recognize bioethical issues
- Apply ethical reasoning and ethical judgment (concepts, theories, methods) to discuss bioethical issues
- Integrate science and ethics such that students can take a bioethical topic or issue and connect the scientific with the ethical issues.