

BIOETHICS (BIOET)

BIOET 501: Perspectives and Methods in Bioethics

3 Credits

This course explores a variety of theories and methods in bioethics and applies them to a selection of current topics.

BIOET 502: Perspectives in Macro-Bioethics

3 Credits

This course explores systemic and structural issues in bioethics, and the theories and methodologies required to address them.

Cross-listed with: PHIL 572

BIOET 504: Research Integrity in Science and Engineering

2 Credits

This course will examine the complex ways ethical issues are a component of research in science and engineering. BIOET 504 Research Integrity in Science and Engineering (2) Research Integrity in Science and Engineering provides a foundation for understanding an expanded conception of research ethics that includes traditional responsible conduct of research (RCR) issues, but encompasses two additional domains in which ethical issues are relevant to the conduct of science, namely, the broader impacts of science and ethical issues that are embedded in scientific practice. Students in this course will develop a robust understanding of ethical responsibility and ethics spotting in their professional work as well as pedagogical training to support their becoming research integrity leaders in their home disciplines. In this course, students will: understand and identify instances of embedded ethics, broader impacts, and research integrity as they apply to work within their profession; develop the ability to apply ethical reasoning skills to examples of each domain of research ethics through case-based analyses; and acquire pedagogical skills in research ethics through developing, delivering, and assessing curricular materials on relevant research ethics topics drawn from their home disciplines. Students will also develop a research ethics teaching portfolio and will be encouraged to work with their departments to identify ways to develop peer mentoring on these important topics.

BIOET 531: Neuroethics: Science, Technology, and Society

3 Credits

This course provides a close examination into the field of neuroethics and the responsible application of advances in neuroscience research and neuroengineering. Neuroethics is a relatively young and interdisciplinary field of inquiry that aims to be a platform for different stakeholders, including neuroscientists, clinicians, lawyers, engineers, policy makers and the general public to discuss the future of neuroscience and the different applications of neurotechnologies. Neuroethics is a field that brings normative, descriptive, theoretical and practical considerations at the table. This course will cover topics such as different perspectives on neuroethics, its scope and role in recent brain initiatives, ethical and societal implications of brain imaging for medical and non-medical purposes, ethical and societal implications of the use of pharmacological and neuromodulation interventions on the brain, uses of neuromodifiers for enhancement purposes, issues around personhood and other emerging topics relevant to neuroethics. Among the ethical issues

examined in the course are issues related to mental privacy, safety considerations, responsibility, agency, and social justice.

Recommended Preparation: An understanding of ethics, societal implications of technology, and neuroscience or neurotechnology background. Courses in functional and integrative neuroscience, as well as courses that provide a grounding in bioethics
Cross-listed with: ESC 531, NEURO 531

BIOET 533: Ethical Dimensions of Renewable Energy and Sustainability Systems

3 Credits

BIOET 533 will provide students with an understanding of the ethical dimensions of renewable energy and sustainability systems and with skills to analyze related case studies. Case studies that will be considered are grounded in topics relevant to the sourcing and generation of energy across political-economic development contexts, including the use of sustainability indicators. Energy related topics include everything from traditional fossil fuels to renewables such as wind, solar, and biofuels. Students study responsible conduct of research (RCR) and professional ethics, in the commercial and academic context of applications in the area of renewable energy and sustainability systems, as well as examine the ethical dimensions of broader public and environmental impacts, and embedded values in research and analysis in this field. The course will provide for ethical analyses of knowledge generation and communication issues such as: selection of research questions; selection of datasets and parameters; determination of system boundaries; procedural considerations in decision making processes; methods of analysis; risk assessments and communication; influence of scientific research on policy outcomes; and, how to critically evaluate the use of scientific evidence and expertise when making and communicating arguments. Some lessons/modules will focus more on ethical issues encountered in practice, while other modules will provide examples that will impact overall ethical literacy and awareness of social and ethical impacts relevant to renewable energy and sustainability systems research and its numerous applications.

BIOET 540: Bioethics, Biopower, Biopolitics

3 Credits/Maximum of 999

This course will examine in a bioethical context a variety of ways relations of power and values intersect. Bioethics, Biopower, and Biopolitics will develop an understanding of bioethics by considering the ways people's lives interconnect and the relations of power that infuse and often control these interconnections. The goal is to expand the use of the term "bioethics" beyond the scope of medical practice and institutions and to bring it to bear on a much wider scope of life. We will consider options for understanding the meaning of "bioethics" by reference to the interplay of values and relations of power that more or less enhance human lives by the practices and policies that form, control, or liberate them.

BIOET 590: Bioethics Colloquium

1-3 Credits/Maximum of 36

Continuing seminars in bioethics that consist of a series of individual presentations by faculty, students, or outside speakers.

2 Bioethics (BIOET)

BIOET 594: Research Topics

1-12 Credits/Maximum of 15

Supervised student activities on research projects identified on an individual or small-group basis.

BIOET 595: Internship

1-12 Credits/Maximum of 12

Supervised off-campus, nongroup instruction, including field experiences, practicums, or internships related to bioethics.

BIOET 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects, including nonthesis research, that are supervised on an individual basis and which fall outside the scope of formal courses.

BIOET 597: Special Topics

1-9 Credits/Maximum of 9

Formal courses given infrequently to explore a topic or topics in bioethics in depth.

BIOET 600: Thesis Research

1-15 Credits/Maximum of 999

Thesis Research in Bioethics.

BIOET 602: Supervised Experience in College Teaching

1-3 Credits/Maximum of 6

Students will teach lower-level undergraduate courses in bioethics, including courses on the undergraduate minor in bioethics and medical humanities.