BIOL 6340: Controversies in Biology

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 0
Lab Hours/Week: 0
OJT Hours/Week: *. *
Prerequisites: None
Corequisites: None
MnTC Goals: None

In this online graduate course, students will examine the responsible conduct and the social, economic, legal, and environmental impact of research across a wide range of the biological sciences, including the consequences of biological knowledge on humans, other animals, and the planet. Using a combination of readings, case studies, scholarly literature, and popular culture we will focus on practical decision-making frameworks in research, education, natural resources, and policy professions.

Because controversial topics touch on deeply held personal beliefs and excite passionate disagreement, the course will also focus on communication, standards of evidence, and curiosity as tools to find common ground between differing positions. Topics will include genetic counseling and prenatal genetic testing, CRISPR and other gene editing and gene therapy technologies, cloning, biodiversity, hunting and fishing, invasive species, and the impact of climate change on organisms.

B. COURSE EFFECTIVE DATES: 08/15/2020 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Biology

D. LEARNING OUTCOMES (General)

1. identify categories and analyze examples of misconduct in biomedical, wildlife, and aquatics research.
2. apply consensus principles in the responsible conduct of research across subdisciplines, including biosafety.
3. find and synthesize primary research literature, lay and secondary sources, policy documents to identify societal and environmental impacts of biological research methods and knowledge production.
4. recognize and communicate the importance, impact, limits, and trade-offs of biological research to non-scientists.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted