

The University Senate of Michigan Technological University

Proposal 12-17

(Voting Units: Academic)

Undergraduate Minor Program Proposal Bioethics Minor

Department of Humanities

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Introduction

The Undergraduate Minor in Bioethics is course of study that provides students with multidisciplinary training in bioethics as a field of scholarship and practice. The program will be offered by the Department of Humanities, with additional courses offered by other departments. The curriculum will provide a program of study that is inclusively multidisciplinary, reflecting the nature and practice of bioethics. The program is ideally suited for the study of bioethics at Michigan Tech, where no single department has the resources to adequately accommodate the multidisciplinary needs of such a program of study.

Rationale

The Undergraduate Minor in Bioethics is designed for and will appeal to students preparing for careers in medicine, nursing, social work, psychology, or other health-related professions, as well as students pursuing careers in biomedical research. It can also serve students preparing for careers in law or business who wish to understand health policy, law, and clinical practice in relation to philosophy and ethics. It has been tailored to advance students' knowledge and skills for working in bioethics, using a multidisciplinary approach that draws on existing resources at Tech, including philosophy courses offered by the Humanities Department, and courses offered by Cognitive and Learning Sciences, Kinesiology and Integrative Physiology, Social Sciences, and Biology. Students from all of these departments can be expected to have an academic and career interest in a Bioethics Minor. Moreover, the program is designed to provide a bioethical foundation that would also be valuable to students from other disciplines, such as Biomedical Engineering, Biochemistry, and Molecular Biology, as well as science and medical journalism.

There is considerable interest among Michigan Tech students from the pre-health and life sciences programs in bioethics education. The Biomedical Ethics course (HU3711), offered annually in the spring, is always fully enrolled with students from across campus. For undergraduate students planning to continue their education in a health-related field, such as medicine, dentistry, nursing, physical therapy, etc., or students pursuing a career in fields related to public policy and law, a Bioethics Minor would have significant practical value, both as an educational experience, and as a desirable addition to their transcripts. Over the years, a number of students have related to me how taking the Biomedical Ethics course helped prepare them for their medical school applications and interviews, for example. As law schools, medical schools,

and nursing schools are increasingly incorporating bioethics education into their curricula, providing our students with a foundation in bioethics through the minor program will provide them with a leg up, with the potential to help prepare students for professional exams such as the MCAT, and help advance their career goals. I would expect strong interest in this program from the start. It is anticipated that departments across Tech would appreciate the value of this program for their students, and potentially add courses in the future that could be incorporated into the program, such as a course in Medical Anthropology, Health Law, or Health Economics. The goal is to provide, from the possibilities and resources available at Michigan Tech, a truly multidisciplinary program that reflects the inclusive practice of bioethics. (See Appendix 1 for a description of learning goals for the Minor.)

The granting of a minor in Bioethics will demonstrate that the student has completed a multidisciplinary course of study in moral theory and health policy related to bioethics. Degree-seeking undergraduate students would be eligible. HU4711 Biomedical Research Ethics is one of the required courses in the program, and satisfies credit requirements for Advanced RCR Training. Although there is interest on campus in a graduate bioethics certificate program, at present there are not enough relevant courses at the 5000 level and above to support an exclusively graduate certificate or minor program.

Bioethics minors are offered by several top U.S. universities. Michigan State University's College of Human Medicine offers a minor in "Bioethics, Humanities and Society." With the addition of this program, Michigan Tech can pioneer the purposeful and thorough integration of bioethics into a STEM education with the first such program offered by a major technological or polytechnic university — neither Cal Poly, CalTech, MIT, Texas Tech, Virginia Tech, nor Rensselaer Polytechnic Institute, for example, offer a similar program. This would be a forward-thinking endeavor that would further Tech's goal of being a leader in "creating solutions for society's challenges through education and interdisciplinary endeavors that advance sustainable economic prosperity, health and safety, [and] ethical conduct."

Details

I. Title: Bioethics Minor

II. Description: The Bioethics Minor develops familiarity with and competency in bioethics through a multidisciplinary program of courses. This multidisciplinary minor is most suitable for students in the Department of Biological Sciences Pre-health Professions Concentrations, as well as students in Kinesiology and Integrative Physiology, Cognitive and Learning Sciences, and students in the Department of Humanities STC major interested in health and health communication.

III. List of courses, including course numbers, titles, credits

Required Courses

HU2702 Ethical Theory/Moral Problems (3 credits) (Fall, Summer)
HU3711 Biomedical Ethics (3 credits) (Spring)
HU4711 Biomedical Research Ethics (3 credits) (Fall, alternate years)

Elective Courses

HU3700 Philosophy of Science (3 credits) (Fall)
HU3410 Introduction to Diversity Studies *or* HU3420 Topics in Diversity Studies (3 credits)
(Spring, Summer)
BL3970 Current Health Issues (3 credits) (Spring, Summer)
PSY2600 Psychology of Death and Dying (3 credits) (alternate years)
PSY3750 Judgment & Decision making (3 credits) (Fall)
EH4711 Sports Medicine and Ethics (3 credits) (On Demand)
PSY2400 Health Psychology (3 credits) (On demand)
PSY3020 Moral Psychology (3 credits) (Fall, alt years)
HU3710 Engineering Ethics (3 credits) (Spring)
HU3701 Philosophy of Technology (3 credits) (Fall)

Total Requirements (not counting prerequisites)

Six 3 credit courses. 18 credits required.

IV. Prerequisites not listed in the Minor

HU3701, HU3710, HU3711, HU3700, HU3400, and BL3970 have the same prerequisites:
UN1015 and UN1025, the first-year mandatory general education courses.

HU4711 (HU3711)
PSY3750 (PSY 2720 or MA 2720, and UN1015 and UN1025)
PSY2600 (PSY2000, and UN1015)
PSY2400 (PSY2000)
PSY3020 (PSY2000 and UN1015 and [UN1025 or Modern Language 3000 or higher])

New Course Descriptions

HU4711 Biomedical Research Ethics

A seminar that examines selected ethical theories, principles, and problems in biomedical research ethics, with an emphasis on research using human and animal subjects. The course provides an introduction to the history of research ethics, and to US and international ethical

codes. A basic grounding in ethical principles and approaches to bioethics will be included. A case-study method designed to develop skills in the analysis of case problems in biomedical research is utilized. This course satisfies the requirements for Advanced RCR Training.

Credits: 3

Semesters offered: Fall, alternating years

Prerequisites: HU3711 Biomedical Ethics, junior or senior, permission of instructor.

Estimated Costs

There are no lab fees associated with this program, and no additional fees for students are anticipated.

Planned Implementation Date

The program can be implemented in the Fall 2017 semester.

Appendix 1
Bioethics Minor Learning Goals

1. Enhance students' ability to engage in critical analysis of bioethical issues, and provide experience in analyzing issues that confront a variety of biomedical and health care professionals and personnel, and the public.
2. Students will develop competency in major ethical theories and bioethical conflicts. Students will be able to identify and describe major ethical principles used in analyzing problems in health care ethics. They will recognize moral problems in health practice, biomedical research, and health policy, and identify which ethical principles or foundational ethical theories are at stake and potentially in tension.
3. Students will be prepared to pursue entry into professional schools such as medicine, graduate schools, or entry level careers in areas such as health care, biotechnology, and health media and communication by developing these competencies, as well as effective communication skills.

Department of Humanities
Minor in Bioethics
HUBI

Name: _____

Student Number: _____ Email: _____

Primary Major: _____ Expected Major Completion Term: _____

Required Courses

____ HU2702 Ethical Theory/Moral Problems (3)

____ HU3711 Biomedical Ethics (3)

____ HU4711 Biomedical Research Ethics (3)

A. Elective Courses

Select 1 course from the following:

____ HU3700 Philosophy of Science (3)

____ HU3701 Philosophy of Technology (3)

____ HU3710 Engineering Ethics (3)

B. Elective Courses

Select 2 courses from the following:

____ HU3410 Intro to Diversity Studies *or* HU3420
Topics in Diversity Studies (3)

____ BL3970 Current Health Issues (3)

____ PSY2600 Psychology of Death and Dying (3)

____ PSY3750 Judgment & Decision Making (3)

____ PSY2400 Health Psychology (3)

____ PSY3020 Moral Psychology (3)

____ EH4711 Sports Medicine & Ethics (3)

____ Other course by permission/approval of
program director

Credits Required = 18

Total Credits _____

Courses listed in this minor have the following prerequisites (in parentheses): HU3701, HU3710, HU3711, HU3700, HU3420, BL3970; PSY3750 (UN1015 and UN1025); HU4711 (HU3711); PSY3750 (PSY2720 or MA2720); PSY2600 (PSY2000 and UN1015); PSY2400 (PSY2000); PSY3020 (PSY2000 and UN1015, and [UN1025 or Modern language 3000 or higher])

Student

Date

Minor Advisor

Date