

# Graduate Certificate in Neuroethics

## Program Description

The Certificate Program in Neuroethics is comprised of four courses: Philosophical Bioethics, Law and Bioethics, Philosophical Neuroethics, and Clinical Neuroethics. The Certificate is open to researchers and clinicians seeking better understanding of the ethical, social and policy implications arising from the use of emerging neurotechnologies and genomics in translational research and clinical practice.

## Program Admissions Requirements

### Graduate School Admissions Requirements

## Required Courses

### **10210 Philosophical Bioethics.** *3 credits.*

In this course, students will explore the foundations of philosophical ethics in the West, and how early themes shape current work in philosophical bioethics. To this end, students will read works by Aristotle, Kant, and Mill, focusing on their theoretical approaches to ethics. Detailed discussion will focus on the ethics theories known as virtue theory, casuistry, deontology, utilitarianism, communitarianism, and principlism, considering both their historical origins and modern interpretations. Students will apply these theories to topical themes of moral development, abortion, assisted death and others, noting their strengths and weaknesses.

### **10223 Law and Bioethics.** *3 credits.*

This course provides an introduction to legal principles and legal precedent relevant to issues in bioethics, aimed at providing the foundation for understanding relevant law concerning these issues.

### **10245 Philosophical Neuroethics.** *3 credits.*

Neuroscience and neurotechnologies are generating knowledge about the nature of consciousness, moral emotions, free will, and concepts of mind and self. While some of these latter concepts are philosophical in nature, they have nonetheless practical, ethical, and sociopolitical significance that demands critical evaluation. New findings in neuroscience are increasingly applied in clinical, legal, and social contexts: 1) neurostimulation technologies provide alternative treatments for debilitating neurological disorders (e.g., Parkinsonism, Treatment-Resistant Depression), 2) neuroimaging technologies are used increasingly for forensic purposes (e.g., lie detection), and 3) neurodevices are developed to enhance cognitive performance (e.g., military applications) or control/alter behavior (moral bioenhancement). Emerging neurotechnologies are likely to impact

nearly every aspect of human existence and society at large. This course focuses on the historical, philosophical, ethical issues arising from advances in neuroscience/ neurotechnologies in the broader social milieu.

**10248 Clinical Neuroethics.** *3 credits.*

Neuroscience and neurotechnologies are generating knowledge about the nature of consciousness, moral emotions, free will, and concepts of mind and self. While some of these latter concepts are philosophical in nature, they have nonetheless practical, ethical and socio-political significance that demands critical evaluation. New findings in neuroscience are increasingly applied in clinical, legal and social contexts: 1) neurostimulation technologies provide alternative treatments for debilitating neurological disorders, 2) neuroimaging technologies are used increasingly for forensic purposes, and 3) neurodevices are developed to enhance cognitive performance or control/alter behavior. Emerging neurotechnologies are likely to impact nearly every aspect of human existence and society at large. This course focuses on the ethical, social and practical issues arising from advances in neuroscience/neurotechnologies in the clinical context.