PSYC G4495
Ethics, Genetics, and the Brain
Professor Frances A. Champagne
Spring 2016

G4495. Ethics, Genetics, and the Brain (seminar).
4pts. Wednesdays 10:10-12 PM in Room 405 Schermerhorn Hall.
Prerequisites: Basic background in neurobiology (for instance PSYC 1010, 2450, 2460, or 2480) and the instructor's permission.

INSTRUCTOR PERMISSION REQUIRED PRIOR TO REGISTRATION

Advances in genetics and neuroscience have expanded our understanding of the biological basis of behavior and risk of psychiatric disorder. However, these advances have implications for decision/policy making, legal issues, and society and raise broad ethical concerns. In this seminar course, we will discuss these implications and issues and consider the future challenges that may arise from the evolving study of the genetic and neurobiological determinants of behavior.

**Weekly Schedule & Readings**

Jan-20-16 Introduction and Overview: What are the ethical, legal, and social implications of genetics and neuroscience research?

**READINGS:**


Jan-27-16 Free Will vs. Determinism; From Genes to Brains to Behavior

**READINGS:**


**Feb-03-16**  
**Consciousness, Neural Activity, & Genes**

**READINGS:**


**Feb-10-16**  
**Class Discussion and Presentation of Vignettes: How does genetic and neurobiological information shape our decisions?**

**Journal Presentations**

**Feb-17-16**  
**Reproductive Choices: Ethics of Using Genetic Information**

**READINGS:**


Feb-24-16 Engineering Genomes & Brains

READINGS:


Mar-2-16 Journal Presentations

Mar-9-16 Discrimination on the Basis of Genetic Information

READINGS:


Bombard Y, Palin J, Friedman JM, Veenstra G, Creighton S, Paulsen JS, Bottorff JL, Hayden MR; Canadian Respond-HD Collaborative Research

Mar-16-16 SPRING BREAK – NO CLASS

Mar-23-16 Neuromarketing: Can and/or should we use brain imaging data to determine consumer preferences?

**READINGS:**


Mar-30-16 Journal Presentations

April-06-16 Legal Responsibility: Genetic and neurobiological variation and criminality

**READINGS:**


April-13-16  **Owning the Genome: Patenting DNA**

**READINGS:**


April-20-16  **Journal presentations**

April-27-16  **Journal presentations; Cultural Issues, Policy Implications & Future Directions**


Course requirements and grading

Oral Presentations and Essay:
Students will be expected to give presentations and write a paper on a single subject chosen from a list of topics covered in the class. Five separate sessions will be devoted to the student presentations (4-5 presentations/session), in which each student will be given 20 minutes to present followed by 5-10 min for questions and discussion. Presentations should focus on one to two recently published research articles in student’s area of interest, and should include: introduction to the research area, discussion of methods, results and conclusions of each paper, as well as future directions. Students not presenting will be expected to read the papers before coming to the class and to participate in discussions following presentations. Throughout the course, students will also be expected to participate in class discussions that will follow the overview lectures given by the instructor. The 8-page term paper will be due at the end of the course (April 27, 2016), and should be written in the style of a review article that summarizes the current state of knowledge and research in the student's area of interest. Students will be expected to write a 2-page article summary due prior to the midterm (March 9, 2016) to get feedback on their writing ability.

Course grades will be based on: class attendance and participation (30%), oral presentation (30%), and the term paper (40%).