

**GRAD 721: Research Ethics**  
Fall 2019, UNC Chapel Hill

T 4:00pm–6.00pm  
Murphey 111

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Office Hours: Wednesdays 3.30pm-4.30pm  
                    Fridays 10.00am-11.00am, or by appointment

**Course Description**

This is an introductory course in research ethics intended for graduate students. It presupposes no prior background in the subject matter or philosophy more generally. Some questions and topics that we will address include:

- (1) What do we mean by “research,” and what do we mean by “ethics”?
- (2) What pressures and other factors create temptations for researchers to falsify their work or fabricate data?
- (3) Human subjects research, vulnerable populations, and informed consent.
- (4) Animal subjects, what’s our ethical responsibility towards animals?
- (5) What are the psychological barriers to good critical thinking? What is the relevance of these problems for researchers and for research subjects?
- (6) What is an appropriate mentor and mentee relationship?
- (7) Conflicts of interest and stereotype effects.
- (8) Who should be an author of an article, and how should disputes about authorship be resolved?
- (9) Social and political responsibilities of researchers.

**NOTE: This course does not count towards the NIH ‘Responsible Conduct of Research’ requirement. If you want to use it to satisfy a different grant or program requirement make sure you confirm with the respective agency that it does.**

**Requirements:**

- (1) Attend every class meeting—you can't pass this course if you do not attend *each* meeting (unless there is a serious medical or personal emergency)
- (2) Complete the required readings before coming to class. All readings will be available on Sakai.
- (3) I will ask each one of you to give a short (5-10 minutes) presentation about the reading of a particular day (to be scheduled later).
- (4) There are no exams, papers, or other formally graded work.

**Course Schedule:****Week 1: Introduction to ethics and moral theories.**

- What makes a particular action right or wrong?

**Reading:** No reading

**Week 2: Research misconduct and lying**

- Definitions and penalties for fabrication, falsification, and plagiarism.
- What is wrong about scientific misconduct, and what are the motivations of people who commit misconduct? What is the difference between research misconduct and errors in research?

**Reading:**

- “Causal Factors Implicated in Research Misconduct: Evidence from ORI Case Files” (pages 1-6) (Davis, Riske-Morris, Diaz)
- “Crime and punishment in scientific research” (Bouville)

**Optional:**

- “Ethical publishing: the innocent author's guide to avoiding misconduct” (Wager)

### **Week 3: Mentoring, authorship, and intellectual property**

- What is an appropriate mentor and mentee relationship?
- How should authorship be decided and how can conflict about authorship be resolved?

#### **Reading:**

- “The mentor-protege relationships in graduate training - some ethical concerns” (by Johnson and Nelson)
- “Is it time for a new definition of authorship?” (Leash)

#### **Optional:**

- “How to get the mentoring you want: A guide for graduate students” (University of Michigan)

### **Week 4: Human subjects research, informed consent, and IRBs**

- A history of misconduct of the use of human subjects in research.
- What conditions are required for research with human subjects to be ethical?
- What is the value of informed consent?

#### **Reading:**

- “What Makes Clinical Research Ethical?” (Emanuel, Wendler and Grady)

#### **Optional:**

- “Institutional review board (IRB) and ethical issues in clinical research” (Kim)
- The Belmont Report

## **Week 5: Data Management and Analysis, Big Data**

- What are the ethical problems involved in the collection, use, interpretation and sharing of data?
- What are the ethical problems involved in doing research with “Big Data”

### **Reading:**

- “Statistics, Ethics and Research: An agenda for education and reform” (Resnik)
- “Informed Consent, Big Data, and the Oxymoron of Research that is not research” (Ioannidis)

### **Optional:**

- “Big Data and Data sharing — Ethical Issues” (UK Data Service)
- *Responsible Conduct of Research*, Chapter 3 “Data Acquisition and Management” (Shamoo and Resnik)

## **Week 6: Social responsibility of scientists**

- What are the social and political responsibility of researchers.
- Do researchers have special duties with respect social and political issues, like climate change?

### **Reading:**

- “The Ethical Challenges of Socially Responsible Science” (Resnik and Elliott)
- “Socially Responsible Science Is More than ‘Good Science’” (Bird)

## **Week 7: Analysis of case studies.**

- Write a short (1-2 pages) case study of an ethical problem that you have encountered in your research. We will discuss these case studies in class.