

Research ethics and research conduct

Instructor:	Sangwon Suh Bren hall 3422, suh@bren.ucsb.edu
Course hours:	Mondays and Wednesday, 3:30pm – 4:45pm Oct 1 nd – Nov 9 rd
No-class days:	Oct 8 th , Oct 10 th
Course credit:	2 credit
Course location:	Bren 1520
Assessment:	S/U based on participation
Office hours:	Tuesday 2:00-3:00pm or by appointment (please use Google Calendar)

Course description:

This course introduces the ethical principles apply to scientists to incoming PhD students of the Bren School. We will discuss key concepts and cases in research conduct and research ethics including: (1) Brief history and basic terms and concepts in ethics; (2) Plagiarism and authorship; (3) Falsification and fabrication; (4) Peer-review process; (5) Human subjects & bioethics; (6) Conflict of interest; (7) Policies and protocols to prevent research misconduct; and (8) Miscellaneous ethical issues in the academic environment. We will also review historical cases of research misconduct, and we will analyze recent retraction cases.

Textbook

National Academy of Sciences, 2012: On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition, National Academies Press, Washington D.C., USA.

Supplementary reading materials

NY Times article: The Mind of a Con Man. http://www.nytimes.com/2013/04/28/magazine/diederik-stapels-audacious-academic-fraud.html?_r=1&pagewanted=all&

Nature commentary: Repairing research integrity.
<http://www.nature.com/nature/journal/v453/n7198/full/453980a.html>

FiveThirtyEight article: How Two Grad Students Uncovered An Apparent Fraud — And A Way To Change Opinions On Transgender Rights. <https://fivethirtyeight.com/features/how-two-grad-students-uncovered-michael-lacour-fraud-and-a-way-to-change-opinions-on-transgender-rights/>

NY Times article: Doubts About Study of Gay Canvassers Rattle the Field. https://www.nytimes.com/2015/05/26/science/maligned-study-on-gay-marriage-is-shaking-trust.html?_r=0

Retraction report of Mahato et al (2015): http://science.sciencemag.org/content/350/6257/170.1.full?utm_campaign=email-sci-toc

Mike Rossner et al (2004): What’s in a picture? The temptation of image manipulation, Journal of Cell Biology. Volume 166, Number 1, 11–15.

Mike Konczal (2013): Reinhart/Rogoff and Growth in a Time Before Debt, ECONOMY AND GROWTH, RORTYBOMB. <http://rooseveltforward.org/guest-post-reinhartrogoff-and-growth-time-debt/>

Steven Kelman (1981): Cost-Benefit Analysis: an ethical critique, Regulation (5) 75-82.

Michael Sandel (1997): It is immoral to buy the rights to pollute (with replies), New York Times.

World Medical Association (2008): Helsinki Declaration: Ethical Principles for Medical Research Involving Human Subjects.

Course content:

#	Content	Note (textbook pages)
1 (Oct 1st)	Introduction <ul style="list-style-type: none"> • History of ethics • Hedonism and utilitarianism • Relational ethics and ethical conflict • Deontology and consequentialism • Social contract theory and professional ethics 	pp. 1-3; pp. 48-50
2 (Oct 3rd)	Plagiarism <ul style="list-style-type: none"> • What constitute plagiarism? • Self-plagiarism • Unintended plagiarism • Historical cases and examples • Tools for plagiarism detection • Review of an iThenticate report 	p. 3; pp. 15-18
Oct 8 and 10	NO CLASS	
3 (Oct 15th)	Plagiarism <ul style="list-style-type: none"> • What constitute plagiarism? • Self-plagiarism • Unintended plagiarism • Historical cases and examples • Tools for plagiarism detection • Review of an iThenticate report 	
4 (Oct 17th)	Authorship	pp. 35-42; pp. 8-18

	<ul style="list-style-type: none"> • What warrant an authorship? • Various norms and disciplinary traditions • Ghost authorship and honorary authorship <p>Falsification and fabrication</p> <ul style="list-style-type: none"> • What is falsification and fabrication? • Handling outliers • Graphical enhancement 	
5 (Oct 22nd)	<p>Falsification and fabrication</p> <ul style="list-style-type: none"> • Historical cases • Analysis of retracted articles 	
6 (Oct 24th)	<p>Peer-review process</p> <ul style="list-style-type: none"> • Ethical issues around peer-review process • Reviewers' and editors' privileges • Merit review process for proposals • Review of cases <p>Conflict of interest</p> <ul style="list-style-type: none"> • Terms and definitions • Practical cases • Rules and regulations 	pp. 43-47
7 (Oct 29th)	<p>Miscellaneous ethical issues</p> <ul style="list-style-type: none"> • Bullies in academia • Ethical issues around advisor-advisee relationship • Biases and prejudices in the academic environment • Conflict between ethical principles 	pp. 28-34
8 (Oct 31st)	<p>Human subjects & bioethics</p> <ul style="list-style-type: none"> • Ethical issues involving human subjects and lives • Treatment of personal information and privacy • Helsinki declaration • Protocols <p>Policies and protocols</p> <ul style="list-style-type: none"> • University policy • Policies and protocols specific to disciplines • Protecting the whistleblowers 	pp. 24-28; pp. 4-9; pp. 19-23;
9 (Nov 5th)	Potential ethical issues in individual research context	student presentation
10 (Nov 7th)	Potential ethical issues in individual research context	student presentation