



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Research Ethics Syllabus

Author(s)

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Year

2010

Description

A syllabus for the course "Research Ethics: Responsibilities to Society, Science, and Self" last taught in the fall of 2010 at Indiana University at Bloomington.

Body

Syllabus

Research Ethics: Responsibilities to Society, Science, and Self

GRAD-G 601 19224 – One credit hour

Fall 2010 – first eight week session – August 31-October 19 Tuesdays,
3:35-5:15 pm – Poynter Center Seminar Room (618 E. 3rd)

Kenneth D. Pimple, Ph.D. Poynter
Center, 618 East 3rd St.

This syllabus should be considered a work in progress and is subject to change and to supplementation.

Description

This graduate seminar will prepare students in the physical, life, and social sciences to face and surmount current and emerging ethical issues as professional researchers, emphasizing cross-disciplinary topics such as mentorship, authorship, honesty, and other responsibilities to colleagues, society, and the common good.

Completion of 1 or 2 years of graduate school before enrolling in this course is recommended. Maximum enrollment is 10. Post-doctoral fellows are welcome, but must register to audit the course¹ and must complete all assignments.

Instructor

Degrees.

- B.S. in Mathematics and B.A. in English-Honors (1982), Regis College, Denver, Colorado
- M.A. (1986) and Ph.D. (1991) in Folklore from Indiana University Bloomington

Current title.

- Director of Teaching Research Ethics Programs, Poynter Center for the Study of Ethics and American Institutions, IU Bloomington

Office hours. I will not keep office hours *per se* for this course, but will be available before and after class. I am also usually available at the Poynter Center 8:00 am-5:00 pm Monday-Friday. You should feel free to stop by, but it is usually wiser to call first.

Style. All sessions will be highly interactive with an emphasis on discussion, small group work, and problem solving.

Assessment and grading of student work will be based on attendance; active, appropriate, and insightful participation; pre-class assignments; and an in-class presentation (for details, see page 4).

Academic honesty. In accordance with Indiana University's Code of Student Rights, Responsibilities, and Conduct (<http://www.iu.edu/~code/code/index.shtml>; accessed August 16, 2010), and the policies of the IU Graduate School, students in this course are expected to conduct themselves in an honest and ethical manner, to do their own work, and not to misrepresent anyone else's work or ideas as their own. You are encouraged to share ideas and comment on each others' work, but all work is finally the responsibility of the student submitting it.

Academic dishonesty can carry severe punishments, including expulsion.

Schedule

Students are encouraged to read the assignments in the order listed.

Week 1 – August 31. Introduction to the course and each other; an introduction to moral theory.

Week 2 – September 7. Research regulation; self-regulation; research ethics.

Readings:

Pennisi – “The case of the midwife toad: Fraud or epigenetics?”

OSTP – “Federal policy on research misconduct” – read sections I (“Research Misconduct Defined”) and II (“Findings of Research Misconduct”) on page 3

Gunsalus – “How to blow the whistle and still have a career afterward”

Glenn – “Psychology and torture”

Pimple – “The ten most important things to know about research ethics”

Week 3 – September 14. Honesty, candor, compromise, and integrity.

Readings:

Bok – “White lies”

Rodriguez – “Irrational morality”

Carey – “Stumbling blocks on the path of righteousness”

Benjamin – “Moral compromise”

Week 4 – September 21. Authorship; plagiarism; peer review.

Readings:

Fine and Kurdeck – “Reflections on determining authorship credit and authorship order on faculty-student collaborations”

Couzin-Frankel and Grom – “Plagiarism sleuths” (with accompanying letters by Loadsman and Roig)

Nature editors – “Who is accountable?”

Yager – “Each co-author should sign to reduce risk of fraud”

Perrin and Zucker on peer review (Perrin – “In search of peer reviewers” and Zucker – “A peer review how-to”)

Week 5 – September 28. Data ownership and stewardship; conflicts of interest; collaboration.

Readings:

Fields and Price – “Problems in research integrity arising from misconceptions about the ownership of research”

NAS – “Executive summary” – read pp. 1-8 only

Indiana University – “Conflict of interest” – read the introduction only
Pimple – “Collaborative research”

Week 6 – October 5. Non-human animal subjects.

Readings:

Tannenbaum and Rowan – “Rethinking the morality of animal research”
Herzog – “The moral status of mice”

Guterman – “New attacks on animal researchers provoke anger and worry”

Week 7 – October 12. Human subjects.

Readings:

Baumrind – “Some thoughts on the ethics of research”
Taylor – “Observing abuse”

National Commission – “The Belmont Report”

Week 8 – October 19. Research and researchers in society.

Readings:

Weinberg – “Will technology replace social engineering?”
Shiffrin and Silberschatz – “Thumbs on the wheel” Thomas –
“The hazards of science”

Warnock – “The ethical regulation of science” Dean
– “Handle with care”

Pre-class exercises

A short writing assignment based on assigned readings will be due before each class (except the first).

Instructions for all pre-class exercises unless otherwise specified: Write a 500-1000 word critical evaluation of the arguments raised or issues addressed in at least two of the readings. Your essay should be a unified whole; that is, the readings you evaluate should be considered together, not merely sequentially.

Pre-class exercises must be submitted to the instructor **via e-mail** as an attachment in Microsoft Office Word, rich-text format, or plain text. Pre-class exercises are **due** no later than 24 hours before class meets.

In-class presentation

In the first week of the course, each student will sign up to make a short (10-15 minute), informal presentation at the beginning of one class session. The presentation should be on the topic covered that day and can draw on assigned readings, the student's experience, or other sources chosen by the student. The presentation will be graded on its relevance to the day's topic and its success at generating discussion among the class members.

If two students sign up to present on the same day, they are expected either to cooperate on a single presentation – sharing all responsibility and receiving identical grades – or coordinate their presentations so that they are not be redundant; coordinated presentations will be graded separately.

Grading

“Eighty percent of success is showing up.”

Woody Allen (attributed)

Grades will be apportioned as follows (100 points maximum):

- 7 pre-class exercises (weeks 2 through 8) – 5 points each, maximum 35 total
- 8 attendance and in-class participation – 7 points each week, maximum 56
- 1 in-class presentation – 9 points

The instructor will make every effort to post weekly grades promptly.

Any student who is unsatisfied with his or her grade for any class session has the option of proposing a remediation plan to the instructor within 96 hours (4 days) of receiving the weekly grade. (For example, if grades are posted on Friday at 5:00 pm, the plan must be presented to the instructor by Tuesday at 5:00 pm.) A remediation plan might take the form of re-doing an assignment or creating a new assignment, for example. Once the instructor has approved the remediation plan, possibly with modifications, it must be completed by the student and received by the instructor within 7 days. Any honest attempt will result in an improved grade up to 100% of possible credit, but there is no guarantee of full credit.

A course grade of incomplete will be assigned only under extraordinary circumstances (as determined by the instructor) and the instructor will establish a strict deadline for completing the required work, most likely 1 or 2 weeks after the end of the course.

Citations for assigned readings

Wk	Citation

7	Baumrind, Diana. 1964. "Some thoughts on ethics of research: After reading Milgram's 'Behavioral Study of Obedience'." <u>American Psychologist</u> 19:421-423.
3	Benjamin, Martin. 1990. "Moral compromise." In <u>Splitting the Difference: Compromise and Integrity in Ethics and Politics</u> by Martin Benjamin, Chapter 2 (pp. 24-45). Lawrence: University Press of Kansas.
3	Bok, Sissela. 1978. "White lies." In <u>Lying: Moral choice in public and private life</u> by Sissela Bok, Chapter V (pp. 57-72). New York: Vintage Books.
3	Carey, Benedict. 2009. "Stumbling blocks on the path of righteousness." <u>New York Times</u> (May 5). http://www.nytimes.com/2009/05/05/health/05mind.html (accessed August 17, 2009)
4	Couzin-Frankel, Jennifer, and Jackie Grom. 2009. "Plagiarism sleuths." <u>Science</u> 324 (May 22):1004-1007. See also Loadsman 2009 and Roig 2009.
8	Dean, Cornelia. 2008. "Handle with care." <u>The New York Times</u> (August 12).
5	Fields, Kay L., and Alan R. Price. 1993. "Problems in research integrity arising from misconceptions about the ownership of research." <u>Academic Medicine</u> 68(9):S60-S64.
4	Fine, Mark A., and Lawrence A. Kurdek. 1993. "Reflections on determining authorship credit and authorship order on faculty-student collaborations." <u>American Psychologist</u> 48(11):1141-1147.
2	Glenn, David. 2008. "Psychology and torture." <u>The Chronicle of Higher Education</u> (August 15):A3.
2	Gunsalus, C. K. 1998. "How to blow the whistle and still have a career afterwards." <u>Science and Engineering Ethics</u> 4(1):51-64. http://poynter.indiana.edu/links.shtml#SEE (accessed August 19, 2009)
6	Guterman, Lila. 2008. "New attacks on animal researchers provoke worry and anger." <u>The Chronicle of Higher Education</u> (August 15):A6, A8.
6	Herzog, Harold A. 1988. "The moral status of mice." <u>American Psychologist</u> (June):473-474.
5	Indiana University. 2008. "Conflict of interest – Introduction." http://research.iu.edu/rschcomp/coi/coi_intro.html (accessed August 19, 2009)
4	Loadsman, John. 2009. "Plagiarism: Consider the context." <u>Science</u> 325 (August 14):813. ³

5	NAS (National Academy of Sciences) Committee on Ensuring the Utility and Integrity of Research Data in a Digital Age. 2009. "Executive Summary." <u>Ensuring the Integrity, Accessibility, and Stewardship of Research Data in the Digital Age</u> . Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/12615.html (accessed August 19, 2009)
7	National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. 1979. "The Belmont Report: Ethical principles and guidelines for the protection of human subjects research." Washington, DC: Department of Health, Education, and Welfare. http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.htm (accessed August 19, 2009)
4	<u>Nature</u> editors. 2007. "Who is accountable?" <u>Nature</u> 450 (November 1):1.
2	OSTP (Office of Science and Technology Policy). 2000. "Federal policy on research misconduct." <u>Federal Register</u> 65(235) 76260-76264 (December 6).
2	Pennisi, Elizabeth. 2009. "The case of the midwife toad: Fraud or epigenetics?" <u>Science</u> 325 (September 4):1194-1195.
4	Perrin, William F. 2008. "In search of peer reviewers." <u>Science</u> 319 (January 4):32. ⁴
5	Pimple, Kenneth D. 2005. "Collaborative research: Avoiding pitfalls and sharing credit." http://mypage.iu.edu/~pimple/collaborative_research_2005.pdf (accessed August 19, 2009)
2	Pimple, Kenneth D. 2009. "The ten most important things to know about research ethics." http://mypage.iu.edu/~pimple/10most.pdf (accessed August 19, 2009)
2	Rodriguez, Aimee. 2009. "Irrational morality." <u>Ethics in Action</u> (Winter 2009):6-7.
4	Roig, Miguel. 2009. "Plagiarism: Consider the context." <u>Science</u> 325 (August 14):813-814. ⁵
8	Shiffrin, Mark A., and Avi Silberschatz. 2009. "Thumbs on the wheel." <u>The New York Times</u> (October 5)
6	Tannenbaum, Jerrold, and Andrew N. Rowan. 1985. "Rethinking the morality of animal research." <u>The Hastings Center Report</u> (October):32-43.
7	Taylor, Steven J. 1987. "Observing abuse: Professional ethics and personal morality in field research." <u>Qualitative Sociology</u> 10(3):288-302.

8	Thomas, Lewis. 1977. "The hazards of science." <u>The New England Journal of Medicine</u> 296 (February 10):324-328.
8	Warnock, Mary. 2007. "The ethical regulation of science." <u>Nature</u> 450 (November 29):615.
8	Weinberg, Alvin M. 1966. "Will technology replace social engineering?" Alfred Korzybski Memorial Lecture.
4	Yager, Kevin. 2007. "Each co-author should sign to reduce risk of fraud." <u>Nature</u> 450 (November 29):610.
4	Zucker, William S. 2008. "A peer review how-to." <u>Science</u> 319 (January 4):32. ⁶

⁶ Saved in the file “Perrin and Zucker on peer review.pdf.”

Notes

Also available at the [TeachRCR.us](https://teachrcr.us) site.

Rights

Use of Materials on the OEC

Resource Type

Instructor Materials

Parent Collection

Ken Pimple Collection

Topics

Animal Use

Research Misconduct

Publication Ethics

Whistleblowing

Discipline(s)

Research Ethics