

**PHIL 2600 Ethics in Science  
Spring 2008**

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Class Location: ENV 391  
Meeting time: T,Th 11:00-12:20  
Office Hours: T, Th 2:00-3:15  
and by appointment

**Course Description:**

Ethics in Science explores the ethical and policy dimensions of scientific research, addressing issues such as research integrity, peer review, authorship status, issues of trustworthiness, human subjects, and animals, as well as the policy context of science, including science for policy, societal impact criteria, and policy for science.

**Objectives:**

**By the end of the course students should be able to:**

1. identify and analyze the ethical aspects of particular situations, especially those dealing with science and technology
2. distinguish the relevant and irrelevant factors at work in such situations
3. propose and defend creative ethical solutions to complex situations
4. begin to display independent, critical thought about matters of ethical theory and practice.

**Materials:**

1. The required textbook for this course is James Rachels and Stuart Rachels *The Elements of Moral Philosophy* 5<sup>th</sup> ed. McGraw Hill, Boston, MA 2007.
2. Online Materials  
Locate online materials well in advance of the date they are due. Last-minute computer problems are not a good excuse for coming to class without reading. Bring all online readings to class, preferably as a printout.
  - a. Articles, as indicated below, will be posted on the course website located at <https://ecampus.unt.edu/webct/entryPage.dowebct> . You will need to login using your EUID and password to access the course website.
  - b. Online articles. Some articles will be available from webpages other than our course site. URLs and/or detailed instructions for locating these articles will be listed on the reading schedule below.
3. Copies of the syllabus, assignment sheets, etc. will be posted on the website.

**Grading:**

Final grades will be assigned as follows:

5%      Participation

- To earn an A or B for participation you should substantially participate on a consistent basis. Class debate and discussions will provide you opportunities to earn credit for this portion of the grade.
- Participation is only possible if you are IN class and paying attention (not using electronic devices for non-class purposes etc.) Participation may be made up for 1) documented emergencies and 2) non-emergencies approved ahead of time (attending an academic conference, surgery, etc.)

20%	Reading Quizzes – Short quizzes (5-10 minutes) will be given throughout the semester. If you do the reading you should do fine on these quizzes.
5%	Lecture Response 2-3 page response to a lecture from the environmental justice conference on Friday, March 6 <sup>th</sup> . If you cannot attend, let me know as soon as possible and I will arrange for an alternative assignment.
15%	Midterm
10%	First Paper -- Science Ethics in the News
20%	Second Paper – Science Ethics in the News
25%	Final Exam (short answer and essay)

Final grades will be calculated according to the following scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
0-59%	F

#### **Tips for Success:**

1. Read each assignment carefully before class.
2. List and define the key terms
3. Write a 2-3 sentence summary of the reading
4. Write a question of clarification or content.

#### **Policy on Timeliness:**

Papers are due in class at the beginning of the scheduled meeting time. Late papers will be docked 5% per day late and should be turned in via email AND hard copy. If you have printer problems at the last minute, email me your assignment and bring a hard copy to me as soon as possible. I will count your paper as turned in at the time I receive the emailed document.

Quizzes and Tests may be

- 1) rescheduled for approved reasons (conferences, court, surgery, etc) if arrangements are made in **advance**.
- 2) made up in the case of documented emergencies. Documented emergencies include an illness with a note from a doctor, funeral with accompanying evidence, etc.

#### **Student Code of Conduct –**

Students are expected to follow the UNT Student Code of Conduct. Quizzes and tests are closed book, closed notes, individual events unless the professor says otherwise. Well before papers are due we will discuss plagiarism and proper citation format in class. Cheating and/or plagiarism can result in a F for the assignment or for the course. The UNT Student Code of Conduct defines plagiarism as follows: “The term “plagiarism” includes, but is not limited to: (a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement and (b) the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in the selling of term papers or other academic materials.”

([http://www.unt.edu/policy/UNT\\_Policy/volume3/18\\_1\\_11.html](http://www.unt.edu/policy/UNT_Policy/volume3/18_1_11.html))

\*\*\*\*ASK if you have questions.\*\*\*\*

### Writing Center

The University Writing Center can help students with all stages of the writing process. Students who take their papers to writing centers generally improve that paper AND their writing in the future. See [http://www.engl.unt.edu/facilities/facilities\\_university\\_writing.htm](http://www.engl.unt.edu/facilities/facilities_university_writing.htm) for more information.

### Disabilities

The Department of Philosophy and Religion Studies complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please register with the Office of Disability Accommodations and let me know how I can help you so the necessary arrangements can be made. See <http://www.unt.edu/oda/> for more information.

### Schedule

\*\*\*Reading assignments listed for a class should be read BEFORE that class.

Date	Subject/Readings
1-20	<b>Introduction : What is Science? What is Ethics? How do they relate?</b> Syllabus
1-22	“Science” and “Science, history of” from the <i>Encyclopedia Britannica</i>  To find these articles: Go to <a href="http://www.library.unt.edu/">http://www.library.unt.edu/</a> In the catalog search for <i>Encyclopedia Britannica</i> using a title search Use the online Encyclopedia and search for the titles listed above.
1-27	<b>Challenges to a stereotypical vision of science: Part 1: Fraud</b> Chapter 1: “The Flawed Ideal” Broad and Wade – see course website on blackboard
1-29	Case Study: Stem Cell Fraud  ***Note: none of these articles is over 2 pages. Read them all! You will find them on blackboard  Chong, Normal, Vogel “How Young Korean Researchers...” Vogel, “Picking up the Pieces after Hwang” Couzin, “Breakdown of the Year” Wohn and Normile, “Prosecutors Allege Elaborate Deception and Missing Funds” Cho, McGee, and Magnus “Lessons of the Stem Cell Scandal” Couzin, “...And How the Problems Eluded Peer Reviewers and Editors”
2-3	<b>Challenge #2 to a stereotypical vision of science: Scientific Communities</b> Vaughn, Challenger Launch decision -- see course website on blackboard
2-5	Vaughn, Challenger Launch decision -- see course website on blackboard
2-10	<b>Challenge #3 to a stereotypical vision of science: Society shapes Science and Technology</b> Introduction: “Understanding Technology” by Robert Pool -- see course website on blackboard

2-12	"Business" by Robert Pool -- see course website on blackboard
2-17	<b>Complex Interactions Between Science, Technology, and Society</b> Tenner, Edward "Slow Motion" -- see course website on blackboard
2-19	<b>Introduction to Ethics</b> Rachels, "What is Morality?" *** remember this is your textbook
2-24	Rachels, "The Challenge of Cultural Relativism"
2-26	<b>MIDTERM</b>
3-3	<b>Scientific Ethics</b> <ol style="list-style-type: none"> <li>1. Medical Ethics: Read the "Preface" and the "Principles of Medical Ethics" at <a href="http://assn.org/ama1/pub/upload/mm/Code_of_Med_Eth/amacode_home.html">assn.org/ama1/pub/upload/mm/Code_of_Med_Eth/amacode_home.html</a></li> <li>2. National Society of Professional Engineers (NSPE) Code of Ethics for Engineers on blackboard</li> <li>3. Case Study: William LeMessurier Read sections I through VIII at <a href="http://www.onlineethics.org/CMS/profpractice/exempindex/lemesindex.aspx">http://www.onlineethics.org/CMS/profpractice/exempindex/lemesindex.aspx</a></li> </ol>
3-5	<b>Virtue Ethics</b> "The Ethics of Virtue" from Rachels, <i>The Elements of Moral Philosophy</i>
3-6	Environmental Justice Conference – attend at least 1 session. More information TBA.
3-10	Discuss Environmental Justice conference <b>turn in response papers</b>
3-12	<b>Case Studies: Virtues</b> <ol style="list-style-type: none"> <li>1. Case Study: Rachel Carson Read sections I through VII at <a href="http://www.onlineethics.org/CMS/profpractice/exempindex/carsonindex.aspx">http://www.onlineethics.org/CMS/profpractice/exempindex/carsonindex.aspx</a></li> <li>2. Case Study: Fred Cuny: Read sections I through X at <a href="http://www.onlineethics.org/CMS/profpractice/exempindex/cunyintro.aspx">http://www.onlineethics.org/CMS/profpractice/exempindex/cunyintro.aspx</a></li> <li>3. Case 51: "Resigning from a Project" – see blackboard</li> </ol>
3-17	<b>Spring Break – NO CLASS</b>
3-19	<b>Spring Break – NO CLASS</b>
3-24	<b>Utilitarianism</b> Rachels, "The Utilitarian Approach"
3-26	Case Study: The Pinto – see course website Case Study: "Typhoid Mary" – see course website
3-31	<b>Respect for Persons</b> <ol style="list-style-type: none"> <li>1. Harris, Pritchard, Rabins "Respect for Persons" p 88-96 – see blackboard</li> <li>2. "The Universal Declaration of Human Rights" at <a href="http://www.un.org/Overview/rights.html">http://www.un.org/Overview/rights.html</a></li> </ol>

4-2	<p>Case Study: Human Experimentation</p> <ol style="list-style-type: none"> <li>1. READ Fournier, Fournier and Herreid "Bad Blood: A Case Study of the Tuskegee Syphilis Project" at <a href="http://ublib.buffalo.edu/libraries/projects/cases/blood.htm">http://ublib.buffalo.edu/libraries/projects/cases/blood.htm</a></li> <li>2. SKIM -- "The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research" at <a href="http://ohsr.od.nih.gov/guidelines/belmont.html">http://ohsr.od.nih.gov/guidelines/belmont.html</a></li> </ol> <p><b>FIRST PAPER DUE</b></p>
4-7	<p><b>Animal Research</b></p> <p>Rennie, John "The Animal Question" p 4  Rowan, Andrew N. "The Benefits and Ethics of Animal Research" p 79  Mukerjee, Madhusree "Trends in Animal Reserch p 86-93  Botting, Jack H.; Morrison, Adrian R. "Animal Research is Vital to Medicine" p83-85  Barnard, Neal D.; Kaufman, Stephen R. "Animal Research is Wasteful and Misleading" p 80-83  All articles are found in Scientific American Feb 97 V 276 Issue 2. To find these articles,</p> <ol style="list-style-type: none"> <li>1. Go to <a href="http://www.library.unt.edu">http://www.library.unt.edu</a></li> <li>2. Select "find e-journal titles"</li> <li>3. Search for "Scientific American"</li> <li>4. Choose "Academic Search Complete" or another full text option</li> <li>5. Under "All Issues" pick the appropriate year, then the right issue, and flip through the pages to find the articles.</li> </ol>
4-9	Continue to discuss animal research.
4-14	<p><b>Religious Ethics</b></p> <p>Rachels, "Does Morality Depend on Religion?"</p>
4-16	Genetics 101: A Brief Reference for the Science – see course website on blackboard
4-21	<p>Case Study: Religious Responses to Genetic Engineering</p> <p><i>Dignitas Personae</i> see <a href="http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_2008_1208_dignitas-personae_en.html">http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_2008_1208_dignitas-personae_en.html</a></p>
4-23	<p>Case Study: More Religious Responses to Genetic Engineering</p> <p>Peters, Ted "The Stem Cell Debate"</p>
4-28	<p><b>Indigenous Resources</b></p> <p>Kleinman, Daniel Lee "Technoscience in the Third World: The Politics of Indigenous Resources" - 69-79</p>
4-30	<p>Kleinman, Daniel Lee "Technoscience in the Third World: The Politics of Indigenous Resources" – 79-85</p> <p><b>Paper 2 Due</b></p>
5-5	Prefinals Week – activity TBA
5-7	Prefinals Week – activity TBA
5-12	<b>FINAL 10:30am-12:30pm *** Note starting time is earlier than our normal class.</b>

