

Science and Society

Course requirements: This course will be graded based on, in equal proportion, the midterm score, participation in class discussions including one class that you will moderate in the second half of the term, and a final project consisting of participation in some local or national issue related to science. Examples of possible projects include: a letter or article for some form of media; volunteer time with a local advocacy group; a presentation in a local school or to a local group; an organized outreach effort; or another participatory activity (approved by the instructor).

Learning goals: The goals of this course include developing proficiency in the following skills: applying concepts and forms of reasoning to ethical issues in science topics, analyzing and evaluating forms of reasoning, identifying and using traditions of ethical thought, identifying and using traditions in the history of science, and evaluating ethical discourse.

Course structure: The structure of the class is based on Socratic discussion. In the first half of the term, we will alternate between readings from the textbook, which give historical context, and corresponding primary sources writing on ethics. You will be expected to discuss the readings in class in detail, so you should be familiar with the material before our meetings. In the second half of the term, we will use the philosophical tools and historical context to discuss urgent modern issues with both ethical and scientific components. One class meeting on each topic will be moderated by the instructor and the other by a group of students. Readings or activities in student-run meetings will be chosen by the students.

Texts: A. Ede and L. Cormack, *A history of science in society*, Ontario: Broadview Press, 2004.

M. Sandel, *Justice: what's the right thing to do?* New York: Farrar, Strauss, and Giroux, 2009.

M. Sandel, *Justice: a reader*, Oxford: Oxford University Press, 2007.

Instructor: Rebecca Bendick, SC 363

Bendick@mso.umt.edu

office hours: MF 10:00-12:00 or by appointment

Part 1: history and philosophy of science

August 27: introduction to the class structure

August 29: Introduction to ethics

Reading: Sandel chapter 1

Sept 2-6: the Ancients

September 3: E&C Chapter 1

September 5: Sandel chapter 8 and excerpt from Aristotle, "Nicomachean Ethics" in *Justice: a reader* (p. 295-299)

September 9-13: the early Christian era and Islamic scholarship

September 10: E&C 2
September 12: the Ten Commandments, excerpts from Paul's Epistles
September 16-20: the revival of western science and philosophy
September 17: E&C 3
September 19: excerpt from Thomas Aquinas "Summa Part II"
September 23-27: Renaissance, exploration, and scientific revolution
September 24: E&C 4
September 26: Galileo "Letter to the Grand Duchess Christina"
September 30-October 4: Scientific revolution and modern methods
October 1: E&C 5
October 3: excerpt from Locke "Second Treatise of Government" in
Justice: a reader—Chapter 1-7 (p. 84-101)
October 7-11: Enlightenment
October 8: E&C 6 and Sandel chapter 2
October 10: Sandel chapter 5
excerpt from Mill "Utilitarianism" in Justice: a reader— Mill: Ch.
1-2 (p. 14-27)
excerpt from Kant "Groundwork for the Metaphysics of
Morals" Preface and Chapter 1 (p. 158-168)
October 14-18: Modern ethics
October 15: Sandel chapter 6
October 17: excerpts from Rawls "A Theory of Justice" in Justice: a
reader (p. 223-226)

Part 2: modern issues of science and ethics

Specific topics of discussion and materials will be selected by the instructor and students from current media.

October 21-25: topic 1
October 28-November 1: topic 2
November 4-8: topic 3
November 11-15: topic 4
November 18-22: topic 5
November 26 and December 3: topic 6
December 9-13: project presentations

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://www.umt.edu/SA/VP/SA/index.cfm/page/1321>.