

	<h2 style="text-align: center;">Science & Society: An Overview</h2> <p>Sociology 410/510</p> <p>MW 2:00-3:20, 175 Lillis</p> <p>Spring 2020</p> <p>Ryan Light</p> <p>Office Hours: 9-11 Fridays 632 PLC and by appointment</p> <p>Email: light@uoregon.edu</p>
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Course Description

Science and technology increasingly seem to infiltrate our every act as individuals, groups, and nations. Scientific research plays a key role in modern economies, as individuals we rely on a complex scientific infrastructure to receive medical treatment, even sports and entertainment have become a deeply scientific and technological enterprises. However, discussions of science often get pushed to the sociological margins. This class serves as an introduction to an alternative: Science as a focus of sociological inquiry. We will highlight the similarities and differences between science and other types of work, discourse, and organization. The class begins by tracing social scientific approaches to science from the earlier norm-based views of science to more recent varieties of social construction. We will build our theoretical toolkit by reading and discussing theoretical heavyweights, such as Latour and Bourdieu, and familiarize ourselves with classics by Kuhn. We will use these tools to interrogate aspects of science asking, for example, to what degree and how science is gender stratified and more broadly how the practice and organization of science is embedded in power relations, including the relationship between science and the public. Special topics within the class will include biomedical science and the relationship between science and the environment.

Expected Learning Outcomes

- *Describe sociological approaches to understanding science
- *Compare and contrast issues in science from a sociological perspective
- *Conduct, write, and present sociologically meaningful analysis

Estimated Student Workload

This course will require approximately 12 hours of work per week with most of that work (about 9 hours) occurring outside of class. A typical week will include 6 hours of reading and 3 hours of in-class time. The two response essays will take approximately 3 hours of dedicated time to complete (e.g. if you complete without “multitasking”). The final project will take a substantial amount of time that will likely vary substantially, but will not take any longer than one would take to prepare for a difficult exam (and hopefully will be more enjoyable and useful!).

Graduate students should expect to work about 1/3 more on this class than the above description.

How Grades Will Be Determined

In-Class Participation: In-class participation is essential for this course. By this time in your academic career, you have the skills and knowledge to contribute and should be confident in this fact. Any PowerPoint slides or notes will be made available after class. My hope is that this will facilitate more thoughtful note-taking and more creative engagement in the course. Attendance is required and you should be prepared in at least two ways: Please **read the course materials prior to the class** and **bring the necessary course materials** for each class.

The Facilitator: Facilitate a small group discussion of 8-10 students for 40 minutes. This is one way we will try to shrink this too large class. The facilitator operates in pairs. First, you will introduce the material (about 5-10 minutes) and then you will organize a discussion of the material. I will assign several objectives for the facilitators a week in advance. At the end of the discussion, you will administer a very quick quiz on the material that includes a peer evaluation. Grades for this assignment will result from the performance of your peers on the quiz, the peer evaluation, a self-evaluation, and my observation of the session.

Weekly Journals: Engage – formally or informally – in the week’s readings in 500-1000 word reading journal entries. The entries should hone in at least **two** of the readings, but can engage them all. What are the readings about? What questions do they raise? What do you find compelling about them? What is frustrating, could be improved, extended, etc.? Journal entries should be submitted weekly on Canvas with the exception of weeks 1 and 10.

Final Project: The final project (10+ pages, double-spaced, 12 pt. font, 1-inch margins) will be in the form of a proposal elaborating a study that you would like to conduct on the topic of your choice. The first 2/3 of the proposal will place your ideas within the context of the course material and appropriate external sources in a thorough literature review. The last third will describe in detail your proposed study: Who or what will you study, what methods will you use, what are potential pitfalls and how will you address them and so forth. I will provide a more detailed handout during week 4 or 5.

Note: If you are a graduate student, you will likely want to develop an alternative assignment that corresponds with your graduate work. I am amenable to and encouraging of this. Graduate students will also be required to write a more substantial final project (about 5,000 words), present an 8 minute overview of your project. Graduate students will also read four additional readings that correspond with your interests and we will meet to discuss those readings twice in my office at a mutually agreed upon time.

Late work and Attendance Policies

Assignments are due on Canvas and in-class on their assigned dates. Late assignments will receive a 5% deduction for every day that they are late including weekends.

Attendance is required in order to be successful in this class. I encourage students to attend every course with an attendance bonus, but absences will also have a negative effect on your participation grade. If special circumstances may affect your participation, attendance, or your ability to turn work in on time,

please contact me as soon as those circumstances arise. If possible and fair, I will attempt to work with students in these situations.

Grade Summary

Load Every Written Assignment on Canvas AND Turn in Physical Copy***

15% In-Class Participation (Including In-class Discussion, Reading Quizzes, and Final Presentation)

15% The Facilitator Project

40% 8 Weekly Journal Entries (500-1000 words)

30% Final Project (10+ pages, double-spaced)

Attendance Bonus: 2% for perfect attendance

My grading policy is consistent with the policy on the Anthropology – a social science with similar standards and objectives – website: <https://anthropology.uoregon.edu/undergrad-program/grade-culture/>. These standards are available under “Grade Culture” below.

Grade ranges:

A	93+	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	<60

An A+ will only be awarded for coursework that significantly exceeds A-level performance, which generally applies to work that earns above 100% for the course

Required Texts:

Available at the UO Bookstore, Amazon.com, etc.:

Skloot, R. (2010). *The immortal life of Henrietta Lacks*. Broadway Books.

Course Schedule (Subject to change with appropriate notice in class or through email):

Note that reading assignments listed as CV will be available through Canvas and see the reference list below for exact page numbers for each reading assignment.

Week 1

March 30, 2020

Introductions

CV: Shapin (2006)

April 1, 2020

Week 2 (F)

April 6, 2020

How does Science Work?

CV: Merton (1973[1942])
CV: Kuhn (2012, pg 1-22, 77-91)
CV: Duster (2005)

Choose one:

CV: Bourdieu (1975)
CV: Haraway (1988)

April 8, 2020

Week 3

April 13, 2020

Scientific Practice (Choose 4)

CV: Latour and Woolgar [1979](1986:15-53)
CV: Star and Griesemer (1989)
CV: Schulz (2015)
CV: Marris (2017)
CV: Hirschman and Berman (2014) (**major points**)

April 15, 2020

Week 4

April 20, 2020

Science, Politics, and Institutions (Choose 4)

CV: Scheufele (2014)
CV: Epstein (2006)
CV: Medvetz (2008)
CV: Reardon (2001)
CV: Mukerji (2003)

April 22, 2020

Week 5

April 27, 2020

Scientific Facts and Public Understanding

CV: Wynne (1992)
CV: Gauchat (2015) (Major points)
CV: Goodstein (2016) (reportage)
CV: Nyhan et al. (2014)
Recommended: CV: McCormick (2012)
Recommended: CV: Bearman (2010)

April 29, 2020

Week 6

May 4, 2020

Science and the Environment

CV: Weart
CV: Oreskes (2007) (**major points**)
CV: Kolbert (2019) (reportage)
CV: York and Clark (2010) (**major points**)
Recommended: CV: Brulle, Carmichael, Jenkins (2012)

May 6, 2020

Week 7

May 11, 2020

Science and Social Movements

CV: Epstein (1995)

CV: Brulle and Pellow (2006)

CV: Brandt (2014)

CV: Brown et al. (2006) (**major points**)

Recommended: CV: Altieri and Toledo (2011)

May 13, 2020

Week 8

May 18, 2020

Ethics

CV: Grady (2015)

CV: Wellerstein (2015)

CV: Smith-Doerr and Vardi (2015)

CV: Edelmann et al. (2017)

Recommended: CV: Dominus (2011)

May 20, 2020

Week 9

May 25, 2020

Capitalism, Inequality and Science

CV: Leslie et al. (2015)

CV: Penner (2015)

Choose 2:

CV: Almeling (2007)

CV: Bolnick et al. (2007)

CV: Walsh and Goodman (2002) (**major points**)

CV: Roberts (2009)

May 27, 2020

Week 10

June 1, 2020

June 3, 2020

FINAL ASSIGNMENT DUE JUNE 8TH @ 5PM ON CANVAS AND IN MY OFFICE (632 PLC)

Note: Graduate Students should complete all of the assigned readings.

Additional University and Course Policies

Encouraging Inclusive Learning Environments: The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this

course that result in barriers to your participation. You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 346-1155 or uoac@uoregon.edu.

Academic Misconduct: The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at www.libweb.uoregon.edu/guides/plagiarism/students.

Being A Good Academic Citizen: What it means to be a good academic citizen is changing at a rapid pace. Classroom norms differ between departments and professors. Technology and our relationship to it have much to do with these ambiguities. So, being a good academic citizen means following traditional norms of good academic behavior: don't plagiarize, including non-appropriated paraphrasing and quotation (see full statement below), be respectful of others ideas, and so forth. But, it is also worth considering newer norms. For my class your phones should be put away. It is distracting to others to have people fidgeting with their text messages. You *can* use a laptop, but you should stay on task and respectful of others around you. If someone is being distracting, please contact me or a GTF. Last, you may NOT sell material for this class (notes, study guides, etc.). Any student who needs help with note-taking should talk to me.

Grade Culture

(from <https://anthropology.uoregon.edu/undergrad-program/grade-culture/>.)

Department of Anthropology (January 2013) Statement on Grades

A+ Quality of student's performance significantly exceeds all requirements and expectations required for an A grade. Very few, if any, students receive this grade in a given course.

A: Quality of performance is outstanding relative to that required to meet course requirements; demonstrates mastery of course content at the highest level.

B: Quality of performance is significantly above that required to meet course requirements; demonstrates mastery of course content at a high level.

C: Quality of performance meets the course requirements in every respect; demonstrates adequate understanding of course content.

D: Quality of performance is at the minimal level necessary to pass the course, but does not fully meet the course requirements; demonstrates a marginal understanding of course content.

F: Quality of performance in the course is unacceptable and does not meet the course requirements; demonstrates an inadequate understanding of course content.

References

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