

ANT 261: Science, Policy, and Society  
Spring 2019: Monday, Wednesday, Friday 11:30 - 12:20 am, Studio D

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How do scientific theories and methodologies, religious beliefs and practices, and technological innovations affect the way we perceive the world around us? This course, an introduction to Science and Technology Studies (STS), is designed to be an inquiry into questions that involve the production and cultural meanings of scientific knowledge and technological change. This course will compare the function and rhetoric of scientific “truths” to other modes of truth-production and consider the ways in which science is culturally produced and in turn reproductive of cultural norms in Western society, including the adoption of Western scientific practices and institutions by non-Western societies and the management of science and technology in social and economic practices. This course is directly pertinent to interdisciplinary fields such as environmental studies, health sciences and humanities, among others.

The impact of the specificity of social and cultural environments on science will be explored at a number of different levels including theoretical models from STS and other disciplines, ethnographic and historical case studies, and reflections by scientists on their practices of science.

### Learning Outcomes

1. *Concepts in STS*: Understand key concepts from STS, recognizing foundational thinkers who have shaped academic discourse, and its application in public policy.
2. *Science and Policy*: Explore the interconnections between scientists, public policy advocates, and the general public, including rhetorics of objectivity, expertise, and cultural values and ethics.
3. *Critical Thinking*: Develop critical perspectives on the production of knowledge in the natural and social sciences, with specific understanding of the impact of social and political structures on science.
4. *Interdisciplinary Thinking*: Analyze questions that involve science, technology, and society using relevant theoretical concepts and methods from the interdisciplinary field of Science, Technology, and Society (especially the humanities and social sciences).

### Course Readings

While the course has an extensive reading list, you will not need to buy any books. All the readings are electronic and available through the library or the course moodle.

Books:

Edwards, Paul N. 2010. *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*. Cambridge: MIT Press.

Weasel, Lisa H. 2009. *Food Fray : Inside the Controversy Over Genetically Modified Food*. New York: AMACOM

In addition to the above books, various articles will be required. These articles are available from Moodle, and are to be completed by the date assigned on the course schedule.

### Course Requirements

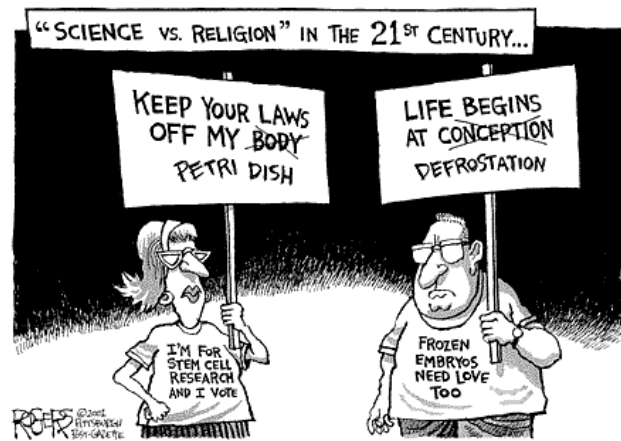
This course is not an introduction to anthropology, and students are expected to have some background in science, anthropology or social theory and methodology.

#### Class Participation: 10%

The most important work in this course is to be prepared for each class; this means having thoroughly read the material and being prepared to discuss particular points from the reading. Readings are due on the day listed in the class schedule. I am not a TV; discussions in class are an important part of exploring anthropological topics. Remember, there is no such thing as a dumb question or comment – if you do not understand something that I present in class, do not hesitate to either ask me in class or find me during office hours.

#### Annotations: 10%

Starting in the second week of class, you will write weekly lecture annotations using a web-based tool called *hypothes.is*; I will introduce *hypothes.is* to you in the second week of class. This will essentially be graded pass/fail – if you write ten good annotations (one for each week), the grade will be neutral with respect to your other grades. There will be a handout on the types of annotations that you can write. Overall, they serve as a diagnostic for me to help me see how much you understand the reading and the concepts that we will discuss in class.



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#### Review Essay (take-home): 20%

There will also be one short essay (no more than five pages) that will give you the opportunity to explore the theoretical implications of the general STS material in relation to a possible research

project. For these essays, no outside research is required; see the handout on the review essay. The essay will be due prior to class on **11 February 2019**.

**Final Case Study (proposal/literature review/final paper): 60%**

Students will work in groups of five to develop a case study and policy brief on a particular issue in science. These content-based case studies will employ many of the concepts discussed in class. This will consist of:

- group proposal and bibliography (worth 10% of the grade) prior to class on **18 February**
- scientific impact exercise (individual 5%, **28 February**)
- group literature review (worth 10% of the grade) on **22 March**
- **group policy paper (20%**, no more than 20 pages excluding references and appendices) due at **5pm on 6 May**
- **group case study website (15%)** due at **5pm on 6 May**.

For more details, see the website (<https://sts.anthro-seminars.net>).

**Submission of Assignments:** All assignments must be submitted to me electronically by email, preferably in MS Word format – but any format will do. If you have any questions about how to submit assignments, please see me individually.

For an explanation of how I grade and my teaching philosophies, please read the material on my website in the “Teaching Philosophy” section.

While students working with each other outside of class is highly encouraged, all graded, written work must be your own and pledged accordingly. All work is subject to the Davidson College Honor Code as stated in the student handbook. If there are individual accommodations for special needs, please let me know and authorize the Dean of Students to contact me so that we can work something out.

The college welcomes requests for accommodations related to disability and will grant those that are determined to be reasonable and maintain the integrity of a program or curriculum. To make such a request or to begin a conversation about a possible request, please contact the Office of Academic Access and Disability Resources, which is located in the Center for Teaching and Learning in the E.H. Little Library: Beth Bleil, Director, [bebleil@davidson.edu](mailto:bebleil@ davidson.edu), 704-894-2129; or Alysén Beaty, Assistant Director, [albeaty@davidson.edu](mailto:albeaty@ davidson.edu), 704-894-2939. It is best to submit accommodation requests within the drop/add period; however, requests can be made at any time in the semester. Please keep in mind that accommodations are not retroactive.

Class Schedule (subject to modification)

Monday, 14 January	Introduction
Wednesday, 16 January	<b>Reading:</b> McIntyre 2015 ; Sismondo 2007 essay
Friday, 18 January	<b>Reading:</b> Using Science as Evidence in Public Policy, Ch 3; Precautionary Principle 2001 article

Monday, 21 January	<b>No Class:</b> MLK Holiday
Wednesday, 23 January	<b>Reading:</b> Gould 1997 article; Barbour 2000 chapter
Friday, 25 January	<b>Reading:</b> Franklin 1995 article; Bourdieu article
Monday, 28 January	<b>Reading:</b> Shapin 1984 article Basis for Scientific Authority
Wednesday, 30 January	<b>Reading:</b> Kuhn 1970 Ch2
Friday, 1 February	<b>Reading:</b> Shapin 1995 article
Monday, 4 February	<b>Reading:</b> Daston 1992; Latour 1992
Wednesday, 6 February	<b>Reading:</b> Cetina 1999; Latour 1983
Friday, 8 February	<b>Reading:</b> Porter 1992; Rotman essay
Monday, 11 February	Collaborative Writing (James Sponsel, Daniel Lynds) <b>Assignment:</b> First Short Essay Due
Wednesday, 13 February	Case Study: The Politics of Global Warming <b>Reading:</b> Edwards, Introduction, Ch. 1
Friday, 15 February	<b>Reading:</b> Edwards, Ch. 2-3
Monday, 18 February	<b>Reading:</b> Edwards, Ch. 4-6 <b>Assignment:</b> Case Study Proposal Due
Wednesday, 20 February	<b>Reading:</b> Edwards, Ch. 7-8
Friday, 22 February	Understanding Scientific Impact (James Sponsel) <b>Reading:</b> TBA
Monday, 25 February	<b>Reading:</b> Edwards, Ch. 9-10
Wednesday, 27 February	<b>Reading:</b> Edwards, Ch. 13-14
Friday, 28 February	<b>Reading:</b> Edwards, Ch. 11-12 <b>Assignment:</b> Scientific Impact Exercise Due
Week of 4-8 March	<i>No Class: Have a good Spring Break!</i>
Monday, 11 March	<b>Reading:</b> <del>Reading:</del> Edwards, Ch 15-Conclusion
Wednesday, 13 March	<b>Reading:</b> Rabinow article More STS Theory
Friday, 15 March	<b>Reading:</b> Rouse article

Monday, 18 March	<b>Reading:</b> Turkle article ( <a href="http://web.mit.edu/sturkle/www/routledge_reader.html">http://web.mit.edu/sturkle/www/routledge_reader.html</a> )
Wednesday, 20 March	<b>Reading:</b> Fox Keller article; Haraway article
Friday, 22 March	<b>Reading:</b> Traweek article <b>Assignment:</b> Literature Review due
Monday, 25 March	<b>Reading:</b> Martin 1990;
Wednesday, 27 March	<b>Reading:</b> Callon article; Silverman article; Backstrand article
Friday, 29 March	Domains Workshop (Sundi Richard) <b>Reading:</b> Mooney 2009 excerpt ;
Monday, 1 April	<b>Reading:</b> Kelly 2010; Dunwoody 2007
Wednesday, 3 April	<b>Reading:</b> Silvertown 2009; Backstrand 2003
Friday, 5 April	<b>Film:</b> Contact (1997)
Monday, 8 April	<b>Film:</b> Contact (1997)
Wednesday, 10 April	<b>Film:</b> Contact (1997) <b>Reading:</b> Whitehead essay; McGrath essay
Friday, 12 April	<i>No Class: Fuji &amp; students at ASIANetwork Conference, San Diego</i>
Monday, 15 April	<b>Reading:</b> Weasel Ch 1, 2 <span style="float: right;">Case Study: GMO Food</span>
Wednesday, 17 April	<b>Reading:</b> Weasel Ch 3
Friday, 19 April	<b>Reading:</b> Weasel Ch 4, 5
Monday, 22 April	<i>No Class: Have a good Easter Break!</i>
Wednesday, 24 April	<b>Reading:</b> Weasel Ch 6
Friday, 26 April	<b>Reading:</b> Weasel Ch 7
Monday, 29 April	<b>Reading:</b> Weasel Ch 8
Wednesday, 1 May	<b>Reading:</b> Weasel Ch 9, Conclusion
Friday, 3 May	Last Day of Class
Monday, 6 May	<b>Assignment:</b> Policy Proposal Due; Case Study Website Due