

# Philosophy of Social Science: Science, Technology, and Human Values

GM Johnson



Caricature showing Franz Joseph Gall practicing Phrenology

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**Office:** Dodd 354

**Time:** TR 4 - 5:50pm  
**Place:** ROYCE 162  
**Office Hours:** R 1:30-3:30 Dodd 354

## Course Overview:

Science and the development of technologies is often considered a value-free enterprise. In this class, students will consider to what extent seemingly objective scientific inquiry can be affected by the social and cultural values of the scientific community. This course surveys the relationship between the pursuit of scientific knowledge, the development of technologies, and the expression of human values. The course will explore questions such as:

- What are science and technology?
- How are they related?
- How do social and cultural values shape scientific research and technological development?
- How do science and technology in turn shape social and cultural values?
- How can we guide technological development to be more just and fair?

Through these questions, we will examine the values implicit in scientific culture and the problems that can arise from a blind commitment to the development of scientific knowledge and technology.

This course takes a distinctively interdisciplinary approach to these inquiries. Apart from readings in philosophy, students will look to a variety of other sources including sociology, psychology, political science, and science and technology studies.

## Course Materials:

All required and supplementary materials (including readings, quizzes, and writing assignments) will be available through the course website. It is very important to check it regularly for updates.

**Course Policies:**

Regarding classroom etiquette, the most important policy to keep in mind is to always abide by the **Principle of Charity**. Formally, this principle requires that you interpret a speaker's statements in the most persuasive way possible, so as to render those statements rational and worthy of philosophical engagement. Intuitively, this requires that you give everyone you interact with the benefit of the doubt. A student following the Principle of Charity, for example, would not speak over their fellow student or be outright dismissive of the points they're intending to convey. This applies not only to your fellow students, but also those readings with which we'll be engaging. The primary aim of the principle is ensure a respectful, worthwhile, and collaborative intellectual environment. Thus, all students will be expected to always act in ways that further these aims.

Here are some additional course policies, the explanations for which are available on the course website and will be covered on the first day of class:

- No electronics (cell phones, laptops, tablets, etc.) are permitted in class.
- Participation and attendance are mandatory.
- Late writing assignments will be penalized for each day they are late.

**Course Requirements:**

Final grades will be calculated on the basis of 5 assignment categories:

- |                                 |                           |
|---------------------------------|---------------------------|
| (1) daily comprehension quizzes | (10% of your final grade) |
| (2) very short paper 1-2 pages  | (10% of your final grade) |
| (3) short paper 2-3 pages       | (15% of your final grade) |
| (4) medium paper, 4-5 pages     | (30% of your final grade) |
| (5) long paper, 5-7 pages       | (35% of your final grade) |

As you can see, this class requires a lot of writing. Philosophy is at its best when students are given the opportunity to engage deeply and critically with a topic—skills you will develop over time and with each assignment. The rising percentage distributions reward progress on these skills.

**Daily Quizzes:**

Students will be expected to complete daily quizzes (starting with the second class). These quizzes are administered through the CCLE website. There are two each week, and they must be completed before class begins. Each quiz will consist of two multiple choice questions. One question is about the material covered in the previous lecture; you won't be able to answer this question on the reading alone. The other question is about the content of the reading for that day. Along with each reading will be study questions. The quiz question will come either from these study questions, or some other obvious aspect of the reading. The purpose of the quiz questions is to test comprehension; they should be easy so long as you actually did the reading and attended class (provided you paid attention to each).

**Written Assignments:**

Prompts and details for written assignments will be made available at least one and a half weeks before the assignment is due. All written assignments will be graded anonymously.

UNIT ONE: SCIENCE AS A HUMAN ACTIVITY

**Week One****Tuesday: Introductions****Thursday: What is science? Logical Empiricism**

- (1) Peter Godfrey-Smith (2003) "Logic Plus Empiricism" *Theory and Reality*

**Week Two****Tuesday: Induction and Confirmation**

- (1) Wesley Salmon (1974) "An Encounter with David Hume" *Reasons and Responsibility*

**Thursday: Popper and Falsificationism**

- (1) James Ladyman (2002) Falsificationism (pp. 62-74)
- (2) Michael Shermer (2015) "The Difference between Science and Pseudoscience" *Scientific American*
- (optional:) Peter van Inwagen (2015) "Objectivity", Chapter 5 of *Metaphysics*

**FIRST PAPER DUE****Week Three****Tuesday: Against the Value-Free Ideal**

- (1) Heather Douglas, (2015) "Values in Science", *The Oxford Handbook of Philosophy of Science*
- (2) \*Richard Rudner (1953) "The Scientist Qua Scientist Makes Value Judgements" *Philosophy of Science*
- (3) \*Thomas Kuhn (2014) "Objectivity, Value Judgement, and Theory Choice" *The British Journal for the Philosophy of Science*

**Thursday: Feminist Philosophy of Science**

- (1) Helen E. Longino (1995) "Gender, Politics, and Theoretical Virtue"
- (2) Sharon Crasnow (2014) "Feminist Standpoint Theory" *Philosophy of Social Science*

**Week Four****Tuesday: Values in Social Science**

- (1) Heather Douglas, (2014) "Values in Social Science" *Philosophy of Social Science*
- (2) John Dupré (2007) "Fact and Value" *Value-Free Science: Ideals and Illusion*

**UNIT TWO: HUMANS AS THE TARGET OF SCIENTIFIC INQUIRY****Thursday: Naturalist Approaches to Human Behavior**

- (1) Merrilee Salmon (1992) "Philosophy of the Social Sciences" *Philosophy of Science*

**SECOND PAPER DUE****Week Five****Tuesday: Social Ontology**

- (1) Joseph Henrich et al. (2010) "Most people are not WEIRD" *Nature*
- (2) Deborah Tollefsen (2014) "Social Ontology" *Philosophy of Social Science*

**Thursday: Individuals Or Populations**

- (1) Helen Longino (2014) "Individuals or Populations?" *Philosophy of Social Science*

**Week Six****Tuesday: Rational Actors**

- (1) Jon Elster (2007) "Rational Choice" *Explaining Social Behavior*
- (2) Katie Steele (2014) "Choice Models" *Philosophy of Social Science*

**Thursday: Norms**

- (1) Christina Bicchieri (2014) "Norms, Conventions, and the Power of Expectation" *Philosophy of Social Science*

**Week Seven**

**Tuesday: Social Construction**

- (1) Ian Hacking (1999) “Why ask What?” *The Social Construction of What?*
- (2) Sally Haslanger (2003) “Social Construction: The ‘Debunking’ Project” *Socializing Metaphysics*

**Thursday: Data Analysis**

- (1) Blaise Agüera y Arcas, Margaret Mitchell, and Alexander Todorov (2017) “Physiognomy’s New Clothes
- (2) Andrea DenHoed (2016) “The Forgotten Lessons of the American Eugenics Movement”

**THIRD PAPER DUE****UNIT THREE: APPLICATIONS IN SOCIAL TECHNOLOGY****Week Eight****Tuesday: Big Data Analysis**

- (1) Kate Crawford (2016) “Artificial Intelligence’s White Guy Problem” *The New York Times*
- (2) Kate Crawford (2013) “The Hidden Biases in Big Data”

**Thursday: Biases in Data Analysis**

- (1) Julia Angwin et al. (2016) “Machine Bias: There’s software used across the country to predict future criminals. And it’s biased against blacks” *ProPublica*
- (2) Sam Corbett-Davies et al. (2016) “A computer program used for bail and sentencing decisions was labeled biased against blacks. It’s actually not that clear” *The Washington Post*

**Week Nine****Tuesday: Structural Explanation**

- (1) Louise Antony (2016) “Bias Friend or Foe” *Implicit Bias and Philosophy*
- (2) Sally Haslanger (2016) “What is a (social) structural explanation?” *Philosophical Studies*

**Thursday: Algorithmic Bias**

- (1) Gabrielle M Johnson (2018) “Algorithmic Bias” *MS*

**Week Ten****Tuesday: Does Technology Shape How We Think?**

- (1) Nicholas Carr (2011) “The Juggler’s Brain”, *The Shallows: what the internet is doing to our brains* (2011)
- (2) Sherry Turtlet (2012) “The Flight from Conversation” *The New York Times*

**Thursday: Fake News and the Spread of Misinformation**

- (1) Regina Rini (2017) “Fake News and Partisan Epistemology” *Kennedy Institute of Ethics Journal*
- (2) Cailin O’Connor and James Owen Weatherall - “How Misinformation Can Spread Among Scientists” *Behavioral Scientist* (2019)

**FINAL PAPER DUE****Academic Misconduct:**

Students are expected to know and to follow the university’s guidelines for academic honesty. Academic misconduct can occur in a variety of ways, including (but not limited to) cheating, fabrication, and plagiarism. When in doubt about whether some academic practice is acceptable, ask your TA or the instructor for assistance. Always err on the side of avoiding misconduct. **Any suspected violation of university policy regarding academic conduct will be reported directly to the Office of the Dean of Students.** In other words, **there are no exceptions.**

**Academic Accommodation:**

Students needing academic accommodations based on a disability should contact the Center for Accessible Education (CAE) [formerly the Office for Students with Disabilities or OSD] at (310)825-1501 or in person at Murphy Hall A255. When possible, students should contact the CAE within the first two weeks of the term as reasonable notice is needed to coordinate accommodations.

**University Resources:**

For more information, check out the following resources:

- Office of the Dean of Students:  
<http://www.deanofstudents.ucla.edu/Academic-Integrity>
- Student Conduct Code:  
[http://www.deanofstudents.ucla.edu/Portals/16/Documents/UCLACodeOfConduct\\_Rev030416.pdf](http://www.deanofstudents.ucla.edu/Portals/16/Documents/UCLACodeOfConduct_Rev030416.pdf)
- Student Guide to Academic Integrity:  
<https://www.deanofstudents.ucla.edu/portals/16/documents/studentguide.pdf>
- UCLA Writing Programs:  
<http://wp.ucla.edu/>
- Center for Accessible Education (CAE):  
[www.cae.ucla.edu](http://www.cae.ucla.edu)