



## STS 11: Science and Law in America

*Fall 2020 Course Syllabus*

**Lecture:** Mondays and Wednesdays, 4:10–05:30 p.m. (Zoom)

**Instructor:** Alejandro Ponce de León, [poncedeleon@ucdavis.edu](mailto:poncedeleon@ucdavis.edu)

**I. Office hours:** Mondays, 2:00–4:00 p.m. (appointments [here](#))

**Course reader:** Samuel Pizelo, [spizelo@ucdavis.edu](mailto:spizelo@ucdavis.edu)

**R. Office hours:** Tuesdays, 1:00–2:00 p.m. ([Zoom](#))

### Presentation

This course explores the relations between science and law, primarily – but not exclusively – in America. Throughout the quarter, we will study what happens when science appears in legal contexts, how courts handle scientific evidence, and how this all connects to the American culture at large.

We commonly think about science and law as forms of knowledge based on universal principles. However, if we look at to how they are practiced, we may tell a different story. Contemporary legal and scientific experts rely on decision-making and evidentiary processes to produce legitimate 'facts.' This means that they are neither the product of one mind nor beyond observation, but the collective outcome of organized deliberations. But what happens when law and science encounter one another, while defining the 'same' facts? Do lawyers and scientists rely on similar or different processes to determine the nature of phenomena? Do their concepts and notions complement, involve, or contest one another? Can science change law, or law impact the ways science is practiced?

This course will teach you how to critically think about regimes of scientific and legal expertise, by bringing together tools that are proper to the fields of history, sociology, and science and technology studies. The course is divided into four thematic units: the (techno-legal) Human Body, Evidence in Criminal Justice, Patent Rights, and Pollution and the Environment. In each of these units we will explore, in unique ways, how science and law contest and redefine one another.

The course will consist of a combination of lectures, homework activities, readings, and in-class discussion. Please be aware that we will be discussing topics that may be delicate or intensely personal. At times, the course content may surprise or provoke you. For this reason, it is encouraged that we think together as a group about ideas that move us in different ways. I invite each of you to debate politely and intelligently.

## Grading percentages

<i>Attendance and participation</i>	20%
<i>Wiki-Edu tutorials</i>	14%
<i>Wikipedia article + reflection</i>	26%
1,500 words due December 10	
<i>Short paper #1</i>	20%
750 words due November 4	
<i>Short paper #2</i>	20%
750 words due November 25	
<u><i>For a total of 100 points</i></u>	

### *Class attendance and participation*

Attending class and engaging in active participation, are essential to your success in this course. I will take attendance each session, and it will count towards your final grade. Exceptions will be admitted, but I advise you to contact me about your absence as soon as possible. You may miss two sessions without penalty, but after that, I will begin deducting points for unjustified absences.

In this course, learning will be a collective effort, so you are encouraged to engage critically with both lectures and class materials. Plan, on average, to make one or two relevant comments in every class session, either in the text-chat window or verbally in the video stream.

### *Wiki-Edu tutorials*

Assignments in this class are supported by Wiki Education, a local nonprofit that helps students and academics engage in the process of writing and editing Wikipedia articles. Starting on week 3, you will be completing a set of short tutorials (15 – 20 min.) through the Wiki Edu platform, each worth 2% of your final grade. These tutorials will give you the necessary tools to effectively participate in the rigorous process of contributing to high-value articles on Wikipedia –which will be the final project for this class. Tutorials can be completed anytime, but each of them has a deadline. To begin with these tutorials, please enroll in the course Wiki-Edu dashboard using this [link](#).

1. <i>Get started on Wikipedia</i>	2%
2. <i>Evaluate Wikipedia</i>	2%
3. <i>Choose possible topics</i>	2%
4. <i>Add to an article</i>	2%
5. <i>Drafting your contributions</i>	2%
6. <i>Continue improving your article</i>	2%
7. <i>Peer review</i>	2%

*For a total of 14%*

### *Final assignment: Wikipedia article and reflection*

This class does not have a final exam. You will be writing, contributing, and/or editing a Wikipedia article, as well as writing a short reflection about it. This final assignment will be worth 26% of your total grade. The objective of this assignment is to give you first-hand experience on the collective decision-making and evidentiary processes that produce legitimate 'facts,' just as the ones we will be studying. This assignment should include some of the material we have used throughout the course (lectures, assigned readings, films, and ideas from our conversations) as well as your own research. We will be working on your article throughout the quarter. The short papers (below), as well as the Wiki-Edu assignments (above), will also help you to think about the article's theme and structure. The final document that you will be submitting will include your contribution to Wikipedia, as well as a short reflection of your own ideas, arguments, and original research about your topic. Detailed information about this assignment will be given in class on **Wednesday, October 14**. Further instructions will be posted on Canvas. You will submit your document on December 10, **but no later than December 17**.

### *Short papers (paper assignment)*

There will be short two papers (750 words) throughout the quarter; the first one is due on November 4 and the second one on November 25. Both papers will be thematically and conceptually connected to your final Wikipedia article. This will be pieces that will help you think about your research, as well as an opportunity to receive detailed feedback from your instructors. Each of them is worth 20% of your total grade, and they will be evaluated based on their content, originality, and sourcing. Your reports must be standard college-level writing. They should be analytical, but not normative or opinion-based. More detailed guidelines will be posted on Canvas throughout the quarter – see course schedule for details.

### *Late Policy*

Each **paper assignment** should be submitted through Canvas before its stated deadline. All writing assignments submitted on or before the stated deadline will automatically receive a bonus: 1/3 of a letter grade higher than the assessed grade. For example, a “C” paper will be bumped up to a “C+”; a “B+” paper will be bumped up to an “A-”; and so forth. Any late assignment submitted up to one week after the stated deadline will be accepted, without penalty. However, no assignment will be accepted more than one week (7 days) after the stated deadline (including weekend days). Insofar as this policy allows a weeklong grace period for late assignments—with no questions asked—it will not be possible to honor requests for an extended deadline.

### **Course material**

In this course, we will be reading a selection of articles and book chapters. **You will be doing the assigned readings prior to our class meetings.** Class meetings are aimed at complementing and expanding the readings. All the readings are available on Canvas, under the file named "readings", and organized per Unit. You will also need to purchase streaming access to two movies: *Trapped* and *Erin Brockovich*. Keep in mind that there will be no textbook assigned for this class. If you have any problem accessing the material, please let me know as soon as possible.

### **E-mail policy**

We will communicate via Canvas. Please visit the course site on a weekly basis. If you have any questions, please send me a message and I will answer as soon as possible. However, allow me two business days to respond.

### **Accommodations**

Please let me know via e-mail, during the first two weeks of class, if you need an accommodation based on a documented disability. I rely on the Student Disability Center to make accommodations, so please contact them as well. For more information, visit their website: <https://sdc.ucdavis.edu/>

### **Plagiarism and academic integrity**

Plagiarism is the presentation of someone else's work (in any media) as one's own. It can occur intentionally or unintentionally. Examples of plagiarism include the lack of appropriate citations when quoting someone's work, paraphrased text that lacks a correct reference to the original source and work copied from a peer. See this link for more information: [sdc.ucdavis.edu/process.html](http://sdc.ucdavis.edu/process.html). I will report all cases of suspected plagiarism to the Office of Student Judicial Affairs, in accordance with the Code of Academic Conduct: <http://sja.ucdavis.edu/files/cac.pdf>

### **GE Requirements**

This course meets the SS breadth requirement and the ACGH literacy requirement. ACGH stands for American Cultures, Governance, and History. Our course addresses this literacy by focusing, almost exclusively, on the origins and contemporary politics of U.S. science law. We will examine how Congress, courts, and several other state agencies mediate between scientific knowledge on the one hand, and our everyday lives on the other. We will also examine how factors such as gender and race play a role in shaping people's engagement with science and technology law, and how social bias can influence legal proceedings. Your assignments will all be geared towards helping you think about these issues.

# Course Schedule

## Introduction

Wednesday, September 30: Introduction to the course  
No reading

Monday, October 5: Science & the legal system  
Jasanoff, Sheila. "Science, common sense & judicial power in US courts." *Daedalus* 147.4 (2018): 15-27.

## Unit 1. The (techno-legal) human body

Wednesday, October 7: The body in science and law  
Clark, Constance Areson. "Evolution for John Doe: Pictures, the public, and the Scopes trial debate." *The Journal of American History* 87.4 (2001): 1275-1303.

Monday, October 12: Eugenic thought  
Lombardo, Paul A. "Three generations, no imbeciles: New light on Buck v. Bell." *NYUL Rev.* 60 (1985): 30.

Wednesday, October 14: 'Seeing' personhood  
Dumit, Joseph. "Objective brains, prejudicial images." *Science in Context* 12.1 (1999): 173-201.  
**[Introduction to the Wikipedia assignments]**

Monday, October 19: Bodily politics  
O'Donnell, Kelly Suzanne. "Reproducing Jane: abortion stories and women's political histories." *Signs: Journal of Women in Culture and Society* 43.1 (2017): 77-96.  
**[Short Paper #1 guidelines posted on Canvas]**

Wednesday, October 21: No class  
Watch: *Trapped* (2016) by Dawn Porter  
**[Get started on Wikipedia (2%) - Due: 2020-10-21]**

## Unit 2. Evidence in criminal justice

Monday, October 26: What makes something 'evident'?  
Rafter, Nicole Hahn. "Seeing and believing: Images of heredity in biological theories of crime." *Brook. L. Rev.* 67 (2001): 71.

Wednesday, October 28: Fingerprints as evidence  
Cole, Simon. "What counts for identity? The historical origins of the methodology of latent fingerprint identification." *Science in Context* 12.1 (1999): 139-172.  
**[Evaluate Wikipedia (2%) - Due: 2020-10-28]**

Monday, November 2: DNA as evidence

Mnookin, Jennifer L. "People v. Castro: Challenging the Forensic Use of DNA Evidence." *Journal of Scholarly Perspectives* 3.01 (2007).

Wednesday, November 4: Photography as evidence

Banchik, Anna Veronica. "Too Dangerous to Disclose? FOIA, Courtroom "Visual Theory," and the Legal Battle Over Detainee Abuse Photographs." *Law & Social Inquiry* 43.4 (2018): 1164-1187.

**[Short Paper #1 due November 4, 11:59 p.m.]**

**[Choose possible topics (2%) - Due: 2020-11-04]**

### **Unit 3. Patent rights**

Monday, November 9: Patents and materiality

Pottage, Alain. "Law machines: Scale models, forensic materiality and the making of modern patent law." *Social Studies of Science* 41.5 (2011): 621-643.

**[Short Paper #2 guidelines posted on Canvas]**

Wednesday, November 11: No class (Veterans Day)

**[Add to an article (2%) - Due: 2020-11-11]**

Monday, November 16: Patenting immateriality

Con Diaz, Gerardo. "Contested Ontologies of Software: The Story of Gottschalk v. Benson, 1963-1972." *IEEE Annals of the History of Computing* 38.1 (2015): 23-33.

Wednesday, November 18: Patenting plants

Kevles, Daniel. "Protections, Privileges, and Patents: Intellectual Property in American Horticulture," *Proceedings of the American Philosophical Society* 152:2 (June 2008): 207-213.

**[Drafting your contributions (2%) - Due: 2020-11-18]**

Monday, November 23: Patenting genes

Cook-Deegan, Robert, and Subhashini Chandrasekharan. "Patents and genome-wide DNA sequence analysis: is it safe to go into the human genome?" *The Journal of Law, Medicine & Ethics* 42.1\_suppl (2014): 42-50.

#### **Unit 4. Pollution and the environment**

Wednesday, November 25: No class

Watch: Erin Brockovich (2000), Steven Soderbergh (Dir.)

**[Short Paper #2 due November 25. 11:59 p.m.]**

**[Continue improving your article (2%) - Due: 2020-11-25]**

Monday, November 30: health as social and environmental

Edmond, Gary, and David Mercer. "Litigation life: Law-science knowledge construction in (Bendectin) mass toxic tort litigation." *Social Studies of Science* 30.2 (2000): 265-316.

**[Final assignment guidelines posted on Canvas]**

**[Peer review (2%) -Due: 2020-12-02]**

Wednesday, December 2: Environmental pollution

Suryanarayanan, Sainath, and Daniel Lee Kleinman. "Be(e) coming experts: The controversy over insecticides in the honey bee colony collapse disorder." *Social Studies of Science* 43.2 (2013): 215-240.

Monday, December 7: Climate change

Von Burg, Ron. "The Supreme Court cleans the air: legal and scientific standards for argument in *Massachusetts v. EPA*." *Argumentation and Advocacy* 53.1 (2017): 41-58.

Wednesday, December 9: Conclusion and review

No reading.

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**Final assignment submission:** December 10, 5:00 p.m.