

## PHIL 110-02 Science, Technology, and Human Values // Spring 2018

<b>Professor:</b>	Dr. Daniel Susser
<b>Office Location:</b>	Faculty Offices 234
<b>Telephone:</b>	(408) 924-4526
<b>Email:</b>	<a href="mailto:daniel.susser@sjsu.edu">daniel.susser@sjsu.edu</a>
<b>Office Hours:</b>	Tues 10:30-11:30AM, Thurs 3:30-4:30PM or by appointment
<b>Class Days/Time:</b>	Tues/Thurs 12:00pm-1:15pm
<b>Classroom:</b>	Boccardo Business Center 222
<b>Prerequisites:</b>	Completion of core GE, satisfaction of Writing Skills Test, and upper division standing
<b>GE/SJSU Studies Category:</b>	Area V: Culture, Civilization, and Global Understanding

### Course Description

In this course we will investigate the relationship between the pursuit of scientific knowledge, the development of technologies and technological systems, and the expression of human values. We will ask: What are science and technology? How are they related? How do social and cultural values shape scientific research and technological development, and how do science and technology shape our values? Is technology changing us—as individuals or as a society? How can technological development be guided, such that it makes us better and more just?

In carrying out these investigations we will look to a variety of sources for help. We will read philosophy, of course, and also sociology, psychology, political science, and science and technology studies. We'll read op-eds and other popular writing in addition to dense, academic texts. You will read, write, and talk *a lot*. The goal is not for you to memorize and regurgitate names, dates, and facts; it is to try out new ways of thinking about and critically evaluating our technoscientific world.

### The Point of Philosophy, or How to Get the Most Out of This Class

Philosophy isn't about learning new facts; it's about changing how you think. It's about questioning received wisdom, clarifying arguments and positions, and seeking coherence in our intellectual and practical lives. In this class we will develop these tools and dispositions by paying particular attention to science and technology. To succeed, arrive to class on-time, listen carefully to me and to your fellow classmates, ask respectful and charitable questions, actively take part in group discussions (without dominating them!), write seriously and with intention, and don't be afraid to change your mind.

### Course Objectives

Upon successful completion of this course, you will be able to:

1. Read and understand complex texts;
2. Analyze arguments and produce counter-arguments;

3. Think critically about how science and technology affect society and how society can exert influence over scientific and technological development;
4. Identify and articulate social, ethical, and political implications of specific technologies and scientific practices;
5. Evaluate the contexts in which particular technologies are developed and the needs and interests they serve.

## General Education Area V Learning Objectives

Students shall be able to:

1. Compare systematically the ideas, values, images, cultural artifacts, economic structures, technological developments, and/or attitudes of people from more than one culture outside the U.S.;
2. Identify the historical context of ideas and cultural traditions outside the U.S. and how they have influenced American culture; and
3. Explain how a culture outside the U.S. has changed in response to internal and external pressures.

## Required Texts

There is no textbook for this course. I have compiled all of our materials into a course reader, which you are required to purchase from AS Print Services.

## Course Requirements and Assignments

Philosophy involves a lot of reading, writing, and discussing ideas. Before each class, I expect you to read the assigned reading(s). It wouldn't be a bad idea to read them twice. I *don't* expect you to understand everything you read—that understanding will come from discussing and writing about the texts in class—but I do expect you to be familiar with them. *Take notes.* Underline parts that pique your interest; bracket parts you don't understand. Look up words you've never heard before. Write down questions that come up as you read, and bring the questions with you to class.

In addition to reading each day's assigned texts and discussing them in class, you will be expected to complete the following written assignments:

### *Exercises*

You can't learn philosophy by just listening to me drone on about it. You have to *do* philosophy to understand it. In addition to lectures and class discussions we will, for that reason, engage in various kinds of written exercises. Many class meetings will begin with a short writing exercise. I'll put a prompt on the board and you'll have 5-7 minutes to write a short response. The purpose of this exercise is to bring you into focus—to bring the day's reading assignment to the front of your mind and to build connections between it and previous readings and class discussions. We will also do *a lot* of group work. It's difficult for everyone to engage fully in large class discussions, so group work is essential to making sure everyone has a chance to talk about and work through the issues. Each person is required to submit their own written responses to group work. Finally, there will occasionally be homework exercises (especially during the initial, one-week introduction to philosophical argumentation). *If you are late or absent you may submit missed exercises, in person, at the following class meeting. I will not accept them after that.*

### *Quizzes*

There will be occasional unannounced quizzes. I will drop your lowest three scores, and the remaining quizzes will count for 20% of your final grade. Some quizzes will test to see if you read that day's assigned readings; others will cover previous class discussions. *If you are late or absent you will not, under any circumstances, be allowed to make up a missed quiz.*

### *Papers*

You will write three papers for this course. Paper 1 (500 words) will ask you to take a moral stance toward a particular technology and advance a short argument in defense of your position. For Paper 2 (1000 words), you will explain an

argument made by one of the authors we read and offer a critical response to it. Paper 3 (1500 words) is a culminating reflection, in which you will consider the role of technology in your own life and articulate that relationship using the conceptual tools we develop throughout the course. The week before each paper is due we will have an in-class paper workshop, where you will work with a partner to read and improve each other's work. You are required to have a workable draft of the paper with you at the workshop. Each workshop draft is worth 5% of your final course grade, and the final drafts are each worth 15% (for a total of 20% per paper).

## Determination of Grades

Exercises: 20%

Quizzes: 20%

Paper 1: 20%

Paper 2: 20%

Paper 3: 20%

Grading scale: A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79) ... F (<60)

## Extra Credit

There is *one and only one* way to get extra credit in this course: you can submit Paper 3 early. If you submit Paper 3 by 11:59PM on May 10<sup>th</sup> (the day of our last class meeting), I will add 3 points to your final grade for the course.

## Grading Information for GE-V Courses

Passage of the Writing Skills Test (WST) or ENGL/LLD 100A with a C or better (C- not accepted), and completion of Core General Education are prerequisite to all SJSU Studies courses. Completion of, or co-registration in, 100W is strongly recommended. A minimum aggregate GPA of 2.0 in GE Areas R, S, & V shall be required of all students.

## Screens Policy

Unless you have a documented disability, *nothing with a screen is allowed in class*. That includes laptops and cell phones. The first time I see you with a screen out in class I'll give you a warning. The second time I'll deduct 3 points from your final grade.

## Email Policy

I encourage you to email me with any questions or concerns you have about the course or your work in it. However, I am not on call 24 hours/day: I will respond to emails Monday-Friday, 9am-5pm. If you email me at night or on the weekend, do not expect an immediate response. Furthermore, I will not respond to emails if (1) they do not contain a salutation (e.g., "Hi Daniel,..." or "Dear Prof. Susser,...") or (2) the answer to your question is contained in this syllabus or on Canvas. You are adults. I expect you to send professional correspondence that doesn't look like a text message, and to have the wherewithal to look for answers first before asking me.

## University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/>

## Reading/Assignment Schedule

The schedule below is an *ideal, approximate*, and therefore *tentative* sketch of things to come. I will adjust it as we go along, in accordance with how slowly or quickly we move through the material. It is your responsibility to come to class and to read the emails I send out in order to keep up with those changes.

*Please note: readings and assignments listed in the right-hand column are due **on the day they are listed**. For example, on February 1<sup>st</sup> you should come to class having already read “Recognizing Arguments” and ready to submit the “Premises and Conclusions” handout.*

Week	Date	Class Topics	Reading/Assignments Due
THINKING CLEARLY AND ARGUING CHARITABLY			
1	Jan 25	Introductions	None
2	Jan 30	What are <b>arguments</b> ? Why argue? How are arguments structured?	Read: Patrick Hurley, “Arguments, Premises, and Conclusions”
	Feb 1	How do you <b>distinguish arguments</b> from non-arguments?	Read: Patrick Hurley, “Recognizing Arguments” Due: “Premises and Conclusions” Handout
PRELIMINARY INVESTIGATIONS			
3	Feb 6	What are <b>science</b> and <b>technology</b> ?	Due: Hurley Exercises 1.2 (I)
	Feb 8	How are science and technology related? What is <b>technoscience</b> ?	Read: Sergio Sismondo, “Is Technology Applied Science?” pp. 93-96
4	Feb 13	What are <b>values</b> ? Are values <b>subjective</b> ?	Watch: “Metaethics” <a href="https://youtu.be/FOoffXFpAlU">https://youtu.be/FOoffXFpAlU</a>
	Feb 15	Is <b>technological progress</b> good?	Read: Neil Postman, “Five Things We Need to Know About Technological Change”
5	Feb 20	What should our attitude toward technology be? Should we be <b>skeptical</b> of technology, <b>optimistic</b> about it, <b>uneasy</b> ?	Read: Carl Mitcham, “Three Ways of Being-With Technology”
	Feb 22	No class	Work on Paper 1
6	Feb 27	Listen: Radiolab, “Antibodies Part 1”	Work on Paper 1
	Mar 1	Paper 1 Workshop	Due: Draft of Paper 1 <b>Final Draft due March 4<sup>th</sup></b>
SCIENCE, TECHNOLOGY, AND THE PERSON			
7	Mar 6	How is technology changing the way we <b>process information</b> ?	Read: Nicholas Carr, “The Juggler’s Brain”
	Mar 8	What happens when we <b>mediate</b> our	Read: Sherry Turkle, “The Flight from

Week	Date	Class Topics	Reading/Assignments Due
		relationships through digital technology?	Conversation" <a href="http://www.nytimes.com/2012/04/22/opinion/sunday/the-flight-from-conversation.html">http://www.nytimes.com/2012/04/22/opinion/sunday/the-flight-from-conversation.html</a>
8	Mar 13	What are our <b>digital selves</b> ? What values guide their construction?	Read: Alice Marwick, "Lifestreaming"
	Mar 15	Which <b>virtues</b> ought to guide our lives online? How can we cultivate moral virtue in our digital selves?	Read: Shannon Vallor, "New Social Media and the Virtues"
9	Mar 20	What is <b>disciplinary power</b> ? Whose values are we being disciplined to conform to?	Read: Michel Foucault, "Panopticism"
	Mar 22	Film	None
:)	Mar 27	Spring Break	Work on Paper 2
	Mar 29	Spring Break	Work on Paper 2
SCIENCE, TECHNOLOGY, AND SOCIETY			
10	Apr 3	Does <b>culture shape technology</b> ? How do different <b>cultural contexts</b> shape the ways technologies are taken up and used?	Read: Don Ihde, "Cultural Hermeneutics"
	Apr 5	How does the <b>NUMMI plant</b> demonstrate both culture shaping technology and technology shaping culture?	Listen: NUMMI <a href="https://www.thisamericanlife.org/radio-archives/episode/403/nummi">https://www.thisamericanlife.org/radio-archives/episode/403/nummi</a>
11	Apr 10	Paper 2 Workshop	Due: Draft of Paper 2 <b>Final Draft due April 15<sup>th</sup></b>
	Apr 12	How is technology <b>culturally coded</b> ? How is technological culture <b>gendered</b> ?	Read: Judy Wajcman, "Technology as Masculine Culture"
12	Apr 17	Why is there a <b>gender gap</b> in the technology industry?	Listen: "When Women Stopped Coding" <a href="https://www.npr.org/sections/money/2014/10/17/356944145/episode-576-when-women-stopped-coding">https://www.npr.org/sections/money/2014/10/17/356944145/episode-576-when-women-stopped-coding</a>
	Apr 19	How can <b>technology design</b> have <b>political effects</b> ?	Read: Langdon Winner, "Do Artifacts Have Politics?" pp. 668-673 Optional: Robert Rosenberger, "How Cities Use Design to Drive Homeless People Away" <a href="https://www.theatlantic.com/business/archive/2014/06/how-cities-use-design-to-drive-homeless-people-away/">https://www.theatlantic.com/business/archive/2014/06/how-cities-use-design-to-drive-homeless-people-away/</a>
13	Apr 24	Are some technologies <b>inherently political</b> ?	Read: Langdon Winner, "Do Artifacts Have Politics?" pp. 673-678 Optional: Bernard Marr, "Self-Driving Cars: Do

Week	Date	Class Topics	Reading/Assignments Due
			Humans Have an Obligation to Stop Driving?" <a href="https://www.forbes.com/sites/bernardmarr/2017/02/23/do-we-have-an-obligation-to-stop-driving-cars/">https://www.forbes.com/sites/bernardmarr/2017/02/23/do-we-have-an-obligation-to-stop-driving-cars/</a>
	Apr 26	Film	Work on Paper 3
14	May 1	<b>Which values</b> should guide technological development? <b>Economic</b> values? <b>Political</b> values?	Read: Zeynep Tufekci, "Did You Hear the Latest About Hillary?" <a href="https://www.nytimes.com/2016/09/13/opinion/campaign-stops/did-you-hear-the-latest-about-hillary.html">https://www.nytimes.com/2016/09/13/opinion/campaign-stops/did-you-hear-the-latest-about-hillary.html</a> <b>AND</b> Paul Lewis, "'Our Minds Can Be Hijacked': The Tech Insiders Who Fear a Smartphone Dystopia" <a href="https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia">https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia</a>
	May 3	<b>Who</b> is technology for? How can we create a <b>just</b> technological future?	Read: Sheila Jasanoff, "Invention for the People"
15	May 8	Paper 3 Workshop	Due: Draft of Paper 3
	May 10	Wrap up course	<b>Paper 3 Due for Extra Credit</b> Final Paper 3 Deadline is May 17th