

San José State University
Aviation and Technology, TECH/AE/ENGR/ME/CMPE 198,
Technology and Civilization
(GE Area V), Sections 3-4, Fall 2016

Instructor: Kelly A. Harrison
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Office Hours: By appointment, via WebEx/Canvas, Friday afternoons
Class Days/Time: Online
Classroom: Canvas
Prerequisites: WST passing score (or equivalent waiver), core GE (A2, A3), 100W passed or co-requisite
GE Category: Culture, Civilization, & Global Understanding, Area V

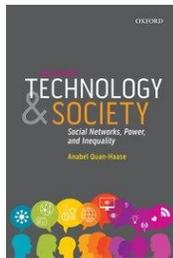
Course Format: Online via Canvas LMS

This course is entirely online using the Canvas Learning Management System, which is the standard at SJSU. You (students) must have reliable internet, a compatible browser, email, and solid technical skills. For information on what browsers are compatible with Canvas, see <http://www.sjsu.edu/at/ec/canvas/index.html>

Your instructor cannot provide technical support. You may use mobile or tablet versions of the Canvas app, but you are responsible for making sure you can access all information and can upload and review all assignments, including peer-review assignments.

Required Texts/Materials

You may purchase new, used/rented, or online versions of these.



1. **(REQUIRED) Technology and Society: Social Networks, Power, and Inequality**, Second Edition by Anabel Quan-Haase ISBN 13: 9780199014712

<https://global.oup.com/academic/product/technology-and-society-9780199014712?cc=us&lang=en&#>

2. **(REQUIRED) How We Got To Now**, by Steven Johnson

Print: ISBN-13: 9781594632969. \$20.04 (Ebooks are fine)



Other research articles and readings will be posted on Canvas.

Other equipment and material requirements

All students must have reliable internet and email access. **For an online course, expect to log in at least three times a week (compressed for summer courses!) and spend 2-4 hours per log in doing class work.**

Canvas and Turnitin.com

Our class uses Canvas, the Learning Management System that SJSU purchased. You are responsible for posting your assignments to areas of Canvas (Assignments, Discussions). To access Canvas, go to sjsu.instructure.com and log in using your SJSU One account. If you have problems with logging in, contact the SJSU Help Desk. Your instructor cannot provide technical support.

All major assignments will be reviewed for plagiarism using turnitin.com.

Our class also has access to a program called Criterion that helps you with grammar errors. I will post directions on Canvas.

Course Description

Catalog text: History, development, and use of technology in different cultures. Technology's impact on society, global environment, the workplace, cultural values, gender roles, and newly industrialized countries of the world. (**Prereq: Upper division standing, passage of WST and CORE GE, 100W or co-enrollment in 100W required**). 3 units.

Final exam

This course has a comprehensive final exam taken online in Canvas.

Purpose of this course

Technology and Civilization is an SJSU Studies course in Area V: Culture, Civilization & Global Understanding that is designed to

- introduce you to the study and appreciation of the history and use of technology in society from an international and intercultural perspective, and
- increase your awareness of both the uncertainties and promises of technology as a creative human enterprise.

This course provides a comprehensive overview of the human dimension of technological change as it continually molds and shapes the nature of our culture, social institutions, and our personal and global environment.

Science and technology are often decried as pervasive and uncontrolled agents of social change. This course focuses on the roles individuals and groups play in the management and control of technological forces toward bettering the human experience. Together, we'll focus on the chronology of technology and its evolving role in shaping human history while using a critical lens to ask how technology affects and is affected by culture. This course helps you broaden your view of technology and its effect on society while building upon your university-level skills in reading, writing, speaking, critical thinking, research, and knowledge from Core GE. You should leave this course with a comprehensive view of the interaction of technology and society.

SJSU Studies (Advanced GE)

This course helps students become integrated thinkers who can see connections between and among a variety of concepts and ideas. An educated person can apply concepts and foundations learned in one area to other areas as part of a lifelong learning process. This course helps students to live and work intelligently, responsibly, and cooperatively in a multicultural society and to develop abilities to address complex issues and problem using disciplined and analytical skills and creative techniques.

The new SJSU senate policy S12-3 requires the university to be compliant with the Federal Regulation of the definition of the credit hour (1 unit):

“Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours [per unit] used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.”

Prerequisites for TECH 198

Undergraduates must have successfully completed Core GE with at least a C grade (C- or below is not accepted) and must have passed the WST Exam or the 100A course. Because this class requires a significant amount of writing and research, **100W is strongly recommended as a prerequisite** but may be accepted per instructor as a co-requisite. A minimum aggregate GPA of 2.0 in GE Areas R, S, & V shall be required of all students.

Note that if you take this class concurrently with ENGR 100W, you will be writing somewhere near 40-50 pages of text this term.

Course Goals and Student Learning Objectives for GE Area V

| | Description | How Achieved |
|-----|---|---|
| LO1 | 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. | Readings, class discussion, <i>How We Got to Now</i> text/videos. Research Exercise. Canvas material: What are the cultural aspects to scientific and technological literacy? Quizzes and written assignments |
| LO2 | Identify the historical context of ideas and cultural traditions outside the U.S. and how they have influenced American culture. | Readings, class discussion, <i>Guns, Germs, and Steel</i> videos, <i>How We Got to Now</i> , and <i>Tech & Society</i> textbook. Web-based unit on the history of technology. Canvas material: Assembly, The Nature of Work Today |
| LO3 | Explain how a culture outside the U.S. has changed in response to internal and external pressures. | Readings, class discussion, videos. Research Exercise. Canvas material: The Scientific Method, The Industrial Revolution, The Industrialization of Society in the 19 th century, Scientific Management, Women at work before 1900 Quizzes and written assignment on technology, quality of life, and culture based upon readings. |

Course Goals specific to Tech 198

| Goal | Description | How Achieved |
|------|--|---|
| 1 | Develop an understanding of technology's impact on cultural values and global mind-sets | Readings, QOL class activities, research exercise, GGS videos |
| 2 | Comprehend the core concepts of science and technology in contemporary society | Readings, multimedia activities on science and technology |
| 3 | Compare the development and use of technology in various countries around the world | Research exercise, Africa assignment |
| 4 | Analyze the interactions between gender, culture and technology in the history of technology | Readings, multimedia activities on gender and technology |
| 5 | Investigate the societal and technological relationships between gender and work | Readings, multimedia activities on Gender and Technology & Multimedia activities on Technology and Work |

| | | |
|---|---|--|
| 6 | Analyze the mechanisms of technology transfer and its effects on other countries | Readings, technology transfer activities |
| 7 | Analyze technological developments, issues, and trends with respect to how these have altered the overall quality of life (QOL) in the United States and in other nations | QOL activities, personal use assignment/discussion |
| 8 | Review several contemporary technology innovations and developments and the ethics associated with responsible technology decision-making both for the United States as well as for other countries | Readings, ethics activities |

ABET outcomes

The College of Engineering has additional learning objectives for ABET accreditation:

| Outcome | Description |
|---------|---|
| F | Understanding of professional and ethical responsibility |
| H | The broad education necessary to understand the impact of engineering solutions in a global and societal context. |

Course Requirements and Assignments (workload)

SJSU classes are designed such that in order to be successful, students are expected to spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in [University Policy S12-3](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

Quizzes, class assignments, homework, participation

Throughout the semester, you will take quizzes on the assigned reading. You will also have various responses to reading and other short writing assignments. You will write a research paper.

Pay attention to due dates. On Canvas, the “Due” date is when the assignment is due for full credit. The “Available until” date is the last date I will accept LATE submissions with a grade penalty. Note that some assignments are due without any late work accepted. You are responsible for making sure your assignments upload properly. I will NOT give additional time or accept papers late because of technical issues. Late papers will be deducted one grade per day late.

▼ Upcoming Assignments

Introduce yourself!

Late penalty

Available until Sep 9

Due date

Due Sep 1 at 11pm

-/10 pts

Plagiarism is unacceptable

Plagiarism is using others’ ideas and words without clearly acknowledging the source of that information. Sometimes it is tempting to copy other people’s ideas from the Internet, textbooks, magazines, lectures, or even from other student papers, incorporating them into our own writing. As a result, it is very important that we give credit. If we don’t give credit, we are taking these words and passing them off as our own. *Plagiarism* comes from a Latin word meaning a kidnapper/thief.

How Can You Avoid Plagiarism? To avoid plagiarism, you must give credit whenever you:

- Use someone else’s direct words (use quotation marks around exact words that you are quoting—and give source at end of quotation marks)

Example: “In the midst of Silicon Valley and all over the globe, SJSU engineers are designing and building high impact innovations, with a particular focus on challenges to global sustainability” (Wei, 2011). [The full reference must appear in a References list.]

- Use someone else’s ideas, in your words, that are not common knowledge

Example: Through the Global Technology Initiative at SJSU, 25 students are selected each year to travel for two weeks to India or China, all expenses paid by GTI (College of Engineering, 2013). [Note this is not the exact words, so there are no quotation marks. The full reference must appear in a References list.]

- Use specific statistics, graphs, drawings, that are not yours

Example: SJSU is ranked 8th overall among the West’s top public universities offering bachelor’s and master’s degrees, according to “American’s Best Colleges” (U.S. News & World Report, 2013).

Cite your own (or co-authored with a partner or team) work, especially in academic settings. If your company has copyrighted work that you have written as part of your job, or you share a patent or have previously published material that you have written, your company likely owns the copyright (not you or your team). If you are unsure about citations, ask your instructor (or your manager at work).

Plagiarism will result in a grade of F. Papers with plagiarism cannot be rewritten for credit. Your department chairperson will be notified. Plagiarism is a serious issue.

Grading Policies: This course uses A-F grading with +/-

GE Area V policy: Students are strongly encouraged to take courses to satisfy GE Areas R, S, and V from departments other than their major department. 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. See [University Policy S14-5](http://www.sjsu.edu/senate/docs/S14-5.pdf) at <http://www.sjsu.edu/senate/docs/S14-5.pdf>.

All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades. See [University Policy F13-1](http://www.sjsu.edu/senate/docs/F13-1.pdf) at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

This course uses the full range of A-F grades. Your grade is based on the total points earned in each unit, and these units are weighted. Letter grades break down as follows (shaded areas indicate you might have to repeat the course depending on your major’s requirements):

| | | |
|----------------|---------------|----------------|
| 98.0-100% = A+ | 93.0-97.9 = A | 90.0-92.9 = A- |
| 87.0-89.9 = B+ | 83.0-86.9 = B | 80.0-82.9 = B- |
| 77.0-79.9 = C+ | 73.0-76.9 = C | 70.0-72.9 = C- |
| 67.0-69.9 = D+ | 63.0-66.9 = D | 60.0-62.9 = D- |
| Below 60.0 = F | | |

In the past, students who did not turn in assignments or routinely turned in assignments late received a grade below a C. It is far better to turn in a rushed assignment (even if you earn an F or receive few points) than it is to not turn one in at all and receive a zero!

Grade distribution:

| Assignment/Activity | Percent |
|--|------------|
| Guns, Germs & Steel assignments | 10 |
| How We Got To Now assignments | 10 |
| Discussions, homework, other assignments | 5 |
| Oxford Technology & Society assignments | 15 |
| Units/Modules on Canvas | 10 |
| Research assignments | 35 |
| Final reflection/video presentation | 5 |
| Final exam | 10 |
| TOTAL | 100 |

Library Liaison for Engineering courses

Crotty, Linda, Engineering Liaison Librarian
Dr. Martin Luther King, Jr. Library
San Jose State University
Phone: 408-808-2636
Email: linda.crotty@sjsu.edu (408) 808-2633
http://libguides.sjsu.edu/aviation_technology

Technology 198, Fall 2016, Course Schedule

The schedule is subject to revision with notice via Canvas announcements.

Reading and video watching must be done PRIOR to taking the quiz or submitting your assignments. Note that NOT ALL QUIZZES AND DISCUSSION ASSIGNMENTS ARE LISTED HERE. Always check Canvas for assignments and due dates. Readings are not always in order of the textbook.

Weeks correspond to those during a normal semester.

TS = Quan-Haase *Technology & Society* textbook SJ = Johnson *How We Got To Now* trade book

| Week | Module/Unit, assignments, readings |
|--|--|
| 1 | Introductions, Canvas materials Read: Week 1 module on Canvas Due: Post prereqs on Canvas, introduce yourself (Aug 31) |
| Unit: Nature of Science & Technology | |
| 2 | Read announcements Begin research assignment Sign up for Criterion: http://www.sjsu.edu/at/ec/criterion/ Read: Unit 1: Nature of Science Module on Canvas Read: TS Chapter 1: The Technological Society & take quiz Due: Research: Worksheet Country #1 (Sep 7) |
| 3 | Continue research: Comparison sheet Watch: Guns, Germs, and Steel (video, episode 1) on Canvas Modules Read: TS Ch 2: Technology in Society: A Historical Overview & take quiz Due: GGS 1 write up (50 pts) (Sept 12) Due: Research: Worksheet Country #2 (Sept 14) Discuss: Response Modes |
| Unit: The History of Technology and Culture | |

| Week | Module/Unit, assignments, readings |
|---|--|
| 4 | Watch: Guns, Germs, and Steel (video, episode 2) Read: Unit 2: History of Technology and Culture (Module on Canvas) Read: TS Ch 3: Perspectives Due: GGS 2 write up (50 pts) (Sept 19) Due: Research: Compare/contrast worksheet (Sept 21) Due: Research: Annotated bibliography (Sept 21) |
| 5 | Watch: Guns, Germs, and Steel (video, episode 3) Read: TS Ch 5: Techno-Social Designing Online discussion: GGS Due: GGS 3 write up (50 pts) (Sept 26) Due: Research: Outline (Sept 28) Due: Research: Workshop/peer review of the outline (Sept 28) |
| Unit: Technology Transfer and Cultural Issues & Research 1 | |
| 6 | Read: TS Ch 6: Adoption and Diffusion Read: SJ Introduction, Ch 1: Glass Watch: How We Got To Now: Glass Due: Glass quiz (Oct 5) |
| 7 | Read: TS Ch 10: Tech-mediated Social Relationships Due: Research: Draft (Oct 10) and peer review (Oct 12) Read: SJ Ch 2: Cold Watch: How We Got To Now: Cold Due: Cold write up (Oct 12) |
| Unit: Quality of Life (QOL) Issues | |
| 8 | Read: TS Ch 11: Surveillance Society QoL discussion |
| 9 | Read: SJ Ch 3: Sound Read: TS Ch 9: Community in Network Society Watch: How We Got To Now: Sound Due: Sound quiz (Oct 19) |
| Unit: Technology and Work | |
| 10 | Read: SJ Ch 4: Clean Watch: How We Got To Now: Clean Read: Unit on Canvas Read: TS Ch 7: Labor of Technology Due: Clean quiz (Oct 24) Due: Research: Revised draft to Kelly (Oct 26) |
| 11 | Read: SJ Ch 5: Time Watch: How We Got To Now: Time Due: Time write up (Nov 2) |
| Unit: Technology, Ethics, and Society | |
| 12 | Read: TS Ch 12: Ethical Dimensions of Technology Read: SJ Ch 6: Light Watch: How We Got To Now: Light Due: Light write up (Nov 9) |
| Unit: Technology and Gender Issues | |

| Week | Module/Unit, assignments, readings |
|------|--|
| 13 | Read: Unit on Canvas Read TS Ch 8: Technology and Inequality Due: Ethics paper (Nov 16) Watch: Video Arise |
| 14 | Read TS Ch 4: Gendered Technology Due: Final Research revised paper (Nov 30) |
| 15 | Due: Course reflection one-page (Dec 7) |
| | FINAL EXAM: December 14 th due by 8 pm |

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.sisu.edu/gup/syllabusinfo/>