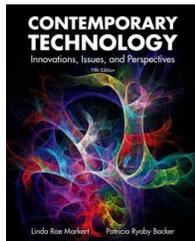


San José State University
Aviation and Technology, TECH/AE/ENGR/ME/CMPE 198,
Technology and Civilization
(GE Area V), Section 2, Spring 2015

Instructor: Kelly A. Harrison
Office Location: IS 133D
Telephone: (408) (924-4496) ****RARELY USED!**
Email: kelly.harrison@sjsu.edu Checked daily M-F
Office Hours: W 5–6PM & after class by appointment
Class Days/Time: Wednesday 6:00PM – 8:45PM
Classroom: IS 216
Prerequisites: WST passing score (or equivalent waiver), core GE (A2, A3), 100W passed or co-requisite
GE Category: Culture, Civilization, & Global Understanding, Area V

Required Texts/Materials



1. **(REQUIRED) Contemporary Technology. Innovations, Issues and Perspectives by Markert, L. R., & Backer, P. R. (2010). 5th edition.**

Print (rental is fine) Goodheart-Willcox. ISBN-10: 987-1-60525-281-0

2. **(REQUIRED) How We Got To Now, by Steven Jo**
Print: ISBN-13: 9781594632969. \$20.04 (Ebooks are fine)



3. **(RECOMMENDED) The Everyday Writer, SJSU Handbook by Andrea Lunsford**

Print ISBN: 9781457667121

Electronic edition ISBN: 9781457633423 or Bedford/St. Martin's online (<http://bcs.bedfordstmartins.com/everydaywriter5e/>)

Online: <http://www.macmillanhighered.com/techsupport>

Other research articles and readings will be posted on Canvas.

Other equipment and material requirements

All students must have reliable internet and email access. If you have a laptop or tablet, please bring it to class to use for course work. I'm not an idiot; I can tell when you're texting or watching videos. Respect other students who want a positive, distraction-free learning environment.

Canvas and Turnitin.com

Our class uses Canvas, the Learning Management System that SJSU uses. I will post all major assignments and most minor assignments on Canvas. You will also be responsible for posting some of your assignments (as noted on the syllabus and in class) to areas of Canvas (Assignments, Wiki, Discussions). To access Canvas, go to sjsu.instructure.com and log in using your SJSUOne account.

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

I will also offer a program called Criterion that helps you with grammar errors. I will demo this tool in class and post directions on Canvas.

Course Description, TECH/ENGR 198

Catalog: 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.

Purpose of this course

Technology and Civilization is an SJSU Studies course in Area V: Culture, Civilization & Global Understanding that is designed 1) to introduce you to the study and appreciation of the history and use of technology in society from an international and intercultural perspective and 2) to 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 basic 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:

“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 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, 100W is strongly recommended as a prerequisite but is accepted as a co-requisite. **Note that if you take this class concurrently with ENGR 100W, you will be writing somewhere near 40-50 pages of text this term.**

Grades in TECH/ENGR 198 are A-F

Students are strongly encouraged to satisfy GE Areas R, S, and V with courses from departments other than the major department. Completion of, or co-registration in, a 100W course is strongly recommended. A minimum aggregate GPA of 2.0 in GE Areas R, S, & V shall be required of all students (University Policy S12-9).

Course Goals and Student Learning Objectives

	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, How We Got to Now videos. Research Exercise 2. Multimedia activities: What are the cultural aspects to scientific and technological literacy? Attitudes of, and about, women in technology Women working around the world
LO2	Identify the historical context of ideas and cultural traditions outside the U.S. and how they have influenced American culture.	Readings, class discussion, How We Got to Now videos. Web-based unit on the history of technology. Sections of the multimedia: 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 1. Sections of the multimedia: The Scientific Method, The Industrial Revolution, The Industrialization of Society in the 19 th century, Scientific Management, Women at work before 1900 Group assignment on technology, quality of life, and culture based upon readings.

General Course Goals for Tech 198

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

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>.

[University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

Quizzes, class assignments, homework, participation

Throughout the semester, I will give quizzes on the assigned reading. These quizzes will not be announced in advance and cannot be made up. I will assign various responses to reading and other short writing assignments both in and out of class. Many in-class activities (especially peer reviews) are graded. **You cannot make up any activity, quiz, or other assignment done in class.**

Late assignments and attendance

You are adults and responsible for attending class and turning in assignments on time. . In business, you can be fired for not meeting deadlines. If you must miss class, contact a **classmate** about what we cover. **Do not email me** asking me what we discussed or if you missed “anything important.” (You did.) Instead, contact a classmate for that material and take responsibility for your actions and choices.

It’s OK to email me if you need clarification on an assignment or need to arrange an appointment to meet in person. Please use standard English (including capitals and punctuation) in all emails to me. Please do not use text messaging or chat abbreviations (like ur, i, lol, etc). Treat your communications with me as you would with an employer. Yes, I teach technical communications, and yes, I expect professional language skills from college students!

You cannot make up missed in-class work or quizzes. I will not accept late work.

Plagiarism

What is Plagiarism? 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. This is plagiarism, which comes from a Latin word meaning a kidnapper or 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: San Jose State University is ranked 8th overall among the West’s top public universities offering bachelor’s and master’s degrees according to the 2013 edition of “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 or your team 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

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. This class uses 1000 points. Letter grades break down as follows (shaded areas indicate student must repeat 100W):

980-1000 = A+	930-979 = A	900-929= A-
870-899 = B+	830-869 = B	800-829= B-
770-799 = C+	730-769 = C	700-729 = C-
670-699 = D+	630-669 = D	600-629 = D-
Below 600 = F		

Grade distribution

Assignment/Activity	Points
Class participation, quizzes, exercises, etc	100
Weekly writing	500
Research exercises (2@100pt)	200
Presentation and evaluations	100
Final exam	100
TOTAL	1000

ENGR 81W Writing Clinic

Based on your first writing assignments, I may recommend you co-enroll in 81W, a one-unit class graded pass/fail that meets one day a week for 1 hour 50 minutes. This course gives you additional support and instruction, particularly in sentence-level writing. To add the class, contact Janelle Melvin (melvin.sjsu@gmail.com) for available days, times, and sections. You must enroll during the official add period.

Library Liaison for Engineering courses

YiPing Wang
Engineering Liaison Librarian
Dr. Martin Luther King, Jr. Library
San Jose State University
(408) 808-2633
yiping.wang@sjsu.edu
<http://libguides.sjsu.edu/wang>

Technology 198, Spring 2015, Course Schedule

The schedule is subject to revision with notice via in-class and Canvas announcements.

Reading and video watching must be done PRIOR to the class meeting.

CT = *Contemporary Technology* SJ = Steven Johnson's *How We Got To Now*

Week	Wednesday, 6-8:45
1 Jan 28	Introductions, Canvas materials Technology and science HW: Post prereqs on Canvas, write tech-literacy narrative on Canvas
Unit 1: Nature of Science & Technology	
2 Feb 4	Intro to Criterion, update on Canvas course materials Due: 1) Prereqs, 2) discussion board on important technology Read: CT Chapter 1: Science, Technology and Society
3 Feb 11	Due: GGS write up Watch: Guns, Germs, and Steel (video, episode 1) on Canvas Modules Read: Unit 1: Nature of Science PDF (On Canvas Modules) CT Chapter 11: Social Response to Technological Changes CT Chapter 12: Social Institutions http://www.sjsu.edu/at/ec/criterion/

Week	Wednesday, 6-8:45
Unit 2: The History of Technology and Culture	
4 Feb 18	Due: GGS write up Watch: Guns, Germs, and Steel (video, episode 2) Read: Unit 2: History of Technology and Culture (On Canvas Modules)
5 Feb 25	Due: GGS write up Watch: Guns, Germs, and Steel (video, episode 3)
Unit 5: Technology Transfer and Cultural Issues	
6 Mar 4	Due: Research Exercise 1 Read: CT Chapter 7: Technology Transfer CT Chapter 8: Appropriate Technology
7 Mar 11	Due: Glass write up Read: SJ Introduction, Ch 1: Glass Watch: How We Got To Now: Glass
Unit 6: Quality of Life (QOL) Issues	
8 Mar 18	Due: Cold write up Read: SJ Introduction, Ch 2: Cold Chapter 9: Environmental Issues Watch: How We Got To Now: Cold
9 Mar 25	Spring Break
10 Apr 1	Due: Sound write up Read: SJ Introduction, Ch 3: Sound Watch: How We Got To Now: Sound
Unit 3: Technology and Work	
11 Apr 8	Due: Clean write up Read: SJ Introduction, Ch 2: Clean Unit 3 on Canvas Watch: How We Got To Now: Clean
12 Apr 15	Due: Time write up Read: SJ Introduction, Ch 2: Time Chapter 6: Manufacturing and Production Enterprises Watch: How We Got To Now: Time
Unit 7: Technology, Ethics, and Society	
13 Apr 22	Due: Light write up Read: SJ Introduction, Ch 2: Light Watch: How We Got To Now: Light
14 Apr 29	Group projects Read: Chapter 2: Biotechnology
Unit 4: Technology and Gender Issues	
15 May 6	Due: Ethics paper Read: Unit 4 on Canvas
16 May 13	Due: Final Research Exercise Presentations, prep for final
May 20	FINAL EXAM

Important dates for Spring 2015

Thursday	January 22	First Day of Instruction – Classes Begin
Tuesday	February 3	Last Day to Drop Courses Without an Entry on Student's Permanent Record (D)
Tuesday	February 10	Last Day to Add Courses & Register Late (A)
Wednesday	February 18	Enrollment Census Date (CD)
Mon-Fri	March 23-27	Spring Recess (*SPRING RECESS*)
Tuesday	March 31	Cesar Chavez Day - Campus Closed (CC)
Wednesday	May 13	Last Day of Instruction – Last Day of Classes
Thursday	May 14	Study/Conference Day (no classes or exams) (SC)
Fri-Thur	May 15-21	Final Examinations (exams)
Friday	May 22	Final Examinations Make-Up Day (MU)
Saturday	May 23	Commencement (C)
Monday	May 25	Memorial Day- Campus Closed (M)
Tuesday	May 26	Grade Evaluation Day (E)
Wednesday	May 27	Grades Due From Faculty - End of Spring Semester (G)

University, college, and department policies

Dropping and adding

Adds for this course are handled through the department instead of the instructor.

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) section at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the current academic year calendars document on the [Academic Calendars webpage](http://www.sjsu.edu/provost/services/academic_calendars/) at http://www.sjsu.edu/provost/services/academic_calendars/. The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the [Advising Hub](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>.

Consent for recording of class and public sharing of instructor material

[University Policy S12-7](http://www.sjsu.edu/senate/docs/S12-7.pdf), <http://www.sjsu.edu/senate/docs/S12-7.pdf>, requires students to obtain instructor's permission to record the course and the following items to be included in the syllabus:

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
 - It is suggested that the syllabus include the instructor's process for granting permission, whether in writing or orally and whether for the whole semester or on a class-by-class basis.
 - In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.
- “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

Academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The [University Academic Integrity Policy S07-2](http://www.sjsu.edu/senate/docs/S07-2.pdf) at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>.

Diversity

Upon successful completion of the course requirements, the student will demonstrate awareness and sensitivity to age, gender, ethnocultural, disability, and other individual/unique differences as they relate to engineering and workplace communications.

Campus policy in compliance with the American Disabilities Act (ADA)

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. [Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the [Accessible Education Center](http://www.sjsu.edu/aec) (AEC) at <http://www.sjsu.edu/aec> to establish a record of their disability.

Accommodation to students' religious holidays

San José State University shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the date that he/she will be absent. It is the responsibility of the instructor to make every reasonable effort to honor the student request without penalty, and of the student to make up the work missed. See [University Policy S14-7](#).

Student Technology Resources

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

SJSU Writing Center



The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the [Writing Center website](#):

<http://www.sjsu.edu/writingcenter>. For additional resources and updated information, follow the Writing Center on Twitter and become a fan of the SJSU Writing Center on Facebook.

SJSU Peer Connections

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. You are encouraged to take advantage of their services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving your first semester at SJSU, and other related topics. A computer lab and study space are also available for student use in Room 600 of Student Services Center (SSC).

Peer Connections is located in three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit [Peer Connections website](#) at <http://peerconnections.sjsu.edu> for more information.