

SAN JOSE STATE UNIVERSITY
Department of Aviation and Technology
AE/ME/CMPE/ENGR/TECH 198--Technology and Civilization
COURSE OUTLINE Fall 2012

Instructor:	Patricia Ryaby Backer	Phone: 924-3214
EMAIL:	pat.backer@sjsu.edu	FAX: 924-3883
Office:	Engr 491	
Location:	Engr 189, 9-10:15 am (on selected days; see course calendar)	
Office hours:	Please email me for an appointment.	

In Fall 2012, Tech 198 will be caught both as an 100% online class and as a hybrid class (a combination in-class and online class). There will be an optional orientation session on Thursday, August 23, 2012 in Engr 189 at 9:00 am. More details about the structure of the class are given below. The hybrid class will meet in person on the following days: 8/23/12, 9/25/12, 9/27/12, 10/2/12, 10/4/12, 11/6/12, 11/8/12, 11/13/12, 11/29/12, 12/4/12, 12/6/12 and for the final exam (12/18/12 from 7:15-9:30 am).

This class meets the SJSU Studies Area V requirement

Catalog Description

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). 3 units.

Tech 198 is crosslisted with ME, AE, GE, and CompE

Prerequisite: For students beginning continuous enrollment in Fall 2005 or later, completion of, or co-registration in, a 100W course is required for enrollment in all SJSU Studies courses. Courses used to satisfy Areas R, S, and V must be taken from three separate SJSU departments, or other distinct academic units {having own HEGIS Code}).

Purpose of Course

Technology and Civilization is an SJSU Studies courses (formerly, advanced general education course) in Area V: Culture, Civilization & Global Understanding that is designed to introduce students to the realm of history and usage of technology in society from an international perspective and to increase their awareness of both the uncertainties as well as the promises of the utilization of technology as a creative human enterprise. TECH 198 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 the global environment.

While science and technology are often decried as pervasive agents of social change, this course focuses on the role individuals can play in the management and control of technological forces toward human achievement. Emphasis is given to the chronology of technology and its role in shaping human history. The perspective is to regard technology both as affecting and being affected by culture. This focus should help you broaden your view of technology and its role and effect on society. This course builds upon basic skills in reading, writing, speaking, critical thinking, and research; and knowledge from Core GE to give you a comprehensive view

of the interaction of technology and society.

General Course Goals for Tech 198

1. Comprehend the core concepts of science and technology in contemporary society (Unit 1 multimedia activities on science and technology)
2. Compare the development and use of technology in various countries around the world (Research Exercise 2).
3. Analyze the interactions between gender, culture and technology in the history of technology (Unit 4 multimedia activities on Gender and Technology).
4. Investigate the societal and technological relationships between gender and work (Unit 3 multimedia activities on Technology and Work).
5. Analyze the mechanisms of technology transfer and its effects on other countries (technology transfer class activities)
6. 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 class activities).
7. 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 class activities).

Student Learning Objectives for Area V of SJSU Studies (Advanced GE)

Students shall be able to:

<p>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.;</p>	<p>Research Exercise 2 will assess this learning objective. In addition, the following multimedia activities relate to this learning objective: What are the cultural aspects to scientific and technological literacy? (Section 3—The nature of science and technology), Attitudes of, and about, women in technology (Section 5—Technology and Gender), Women working around the world (Section 4—Technology and Gender).</p>
<p>2. identify the historical context of ideas and cultural traditions outside the U.S. and how they have influenced American culture;</p>	<p>The web-based unit on the history of technology addresses this learning objective. Several sections of the multimedia relate to this learning objective: Assembly line (Section 5—Technology and work), The Nature of Work Today (Section 7—Technology and work)</p>
<p>3. explain how a culture outside the U.S. has changed in response to internal and external pressures.</p>	<p>Research Exercise 1 will assess this learning objective. Several sections of the multimedia also address this learning objective: The Scientific Method (Section 4—The nature of science and technology), The Industrial Revolution (Section 1—Technology and work), The Industrialization of Society in the 19th century (Section 2—Technology and work), Scientific Management (Section 4—Technology and work), Women at work before 1900 (Section 2—Technology and Gender).</p>

Textbook

Markert, L. R., & Backer, P. R. (2010). *Contemporary Technology. Innovations, Issues and Perspectives* (5th ed.). Tinley Park, IL: Goodheart-Willcox.

Other Materials

- (1) *Criterion*: For this class, you will need to purchase a license for the Criterion® Online Writing Evaluation Service. The Criterion® Online Writing Evaluation service provides students with reliable evaluations of English-language essays. It delivers immediate score reporting and diagnostic feedback that students can use to revise and resubmit their essays. SJSU is negotiating a price for the student version of Criterion. I will send you an email about this product after the price is set. You only need ONE registration number per semester. You can use this same number for any classes that are using ETS Criterion. You will still need to register for each class separately, just be sure to use the same serial number. Don't buy more than one!

- (2) *Multimedia*: There are four different versions of the multimedia available: a Windows version, a Mac OS multimedia CD, a Word version, and an iBook version. The Mac OS multimedia does not work with the most recent MAC operating systems (OS X Lion and OS X Mountain Lion). You can download the multimedia and word versions from the class D2L website or pick the CDs up from the Department of Aviation and Technology office in Industrial Studies 111. For this class, there are three CD-ROMs. If you want to use the iBook version, you should email me so that I can send you the download instructions.

Backer, P. R. (2011). **Technology and Civilization: A multimedia course. Unit 1. The nature of science and technology** [CD-ROM software]. San Jose, CA: The Department of Aviation and Technology, SJSU.
Backer, P. R. (2011). **Technology and Civilization: A multimedia course. Unit 3. Technology and work** [CD-ROM software]. San Jose, CA: The Department of Aviation and Technology, SJSU
Backer, P. R. (2011). **Technology and Civilization: A multimedia course. Unit 4. Gender and Technology** [CD-ROM software]. San Jose, CA: The Department of Aviation and Technology, SJSU

- (3) *Web-based material*: Backer, P. R. (2011). The history of technology [WWW online module]. San Jose, CA: The Department of Aviation and Technology, SJSU. Available at: <http://www.engr.sjsu.edu/pabacker/history/>

American with Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need 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 requires that students with disabilities requesting accommodations must register with DRC to establish a record of their disability.

Academic integrity statement (from Office of Student Conduct and Ethical Development): Your own commitment to learning, as evidenced by your enrollment at San José State University, and the University's Academic Integrity Policy 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 policy on academic integrity can be found at http://sa.sjsu.edu/student_conduct.

Each multimedia assignment (Units 1, 2, 3, and 4), the ethics D2L assignment (Unit 7), all hybrid assignments and both research exercises will be submitted to your instructor by email

and through the Desire2Learn dropbox. Your essay will be reviewed for Plagiarism through Desire2Learn.

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.

Evaluation

1.	Weighted Criteria	Percentage
a.	Unit Activities. Each unit includes various activities, discussion questions, and responses.	40
b.	Research Exercise 1	
	First draft of RE1 with Criterion certificate	5
	Final version of RE 1 (minimum 1250 words, approx. 5 pages D.S.)	20
c.	Research Exercise 2	
	First draft of RE2 with Criterion certificate	5
	Final version of RE 2 (minimum 1250 words, approx. 5 pages D.S.)	20
d.	Final Exam (Oral presentation)	10
2.	Due dates are listed on the attached Course Schedule. Reading assignments that are pertinent to individual units are listed on the Course Schedule. It is your responsibility to keep current and read all relevant assignments before they are used in class.	
3.	No assignments will be accepted late. Exceptions will be made to this policy only in emergency situations . Please call or email Dr. Backer as soon as possible. If you are absent the day an assignment is due, you should arrange to send the assignment to Dr. Backer by EMAIL.	
4.	All work completed should be written in proper English. Work that is not done in an acceptable manner will receive no credit.	
5.	Grade distribution. The final grade distribution will be as follows: 93-100 A; 90-92 A-88-89 B+; 83-87 B; 80-82 B-; 78-79 C+; 73-77 C; 70-72 C-; 69 D+; 65-68 D; below 65 F	
6.	This greensheet is subject to change with fair notice.	

Description of Major Activities in this Course

NOTE: Tech 198 will be caught both as an 100% online class and as a combination in-class and online class. Units 1, 3, and 4 will be completed as self-paced multimedia activities for all students in the class. Unit 2 is a web-based unit for all students in the class. There are three remaining units (Units 5, 6, and 7). For each of these units, you can either attend the in-person sessions in Engr 189 OR complete the online D2L material. You can choose either method but you can't switch during a unit. If you start attending unit 5 in class, you can't also complete the online version of unit 5. You can, however, attend some units in person and other units online. For example, Student A decides to complete the online material for Unit 5 but attends in person for Units 6 and 7. As another example, Student B attends in person for Units 5 and 6 but completes the online version of Unit 7.

Unit Activities

The class work portion of your grade includes all individual and group written and oral activities completed in class. Additionally, this category includes any homework, quizzes, and/or ancillary assignments that are given in class. Over the course of the semester, you will write the equivalent of at least ten pages, double-spaced. The Unit activities include all in-class activities, the Desire2Learn activities, the multimedia activities for Units 1, 3, and 4; and the Unit 2 History of Technology Web Tutorial.

- *Multimedia Activities, Units 1, 3, and 4.* Unit 1 (The Nature of Science and Technology), Unit 3 (Technology and Work), and Unit 4 (Gender and Technology) will be completed as self-paced multimedia activities. Each of these multimedia units has multiple sections. At the end of each section is a class activity. Each of these class activities must be submitted to your instructor by the due date indicated in the attached schedule. Your work on the multimedia class activities will be included in your class work grade.
- *Unit 2 History of Technology Web Tutorial.* This unit has been developed as a multimedia learning experience for students. The History of Technology web tutorial is divided into three major sections: Technology in the Middle Ages, Chinese Contributions to Technology, and Islam Spain and the History of Technology. This web tutorial is available at <http://www.engr.sjsu.edu/pabacker/history/>. At the end of the web-based tutorial, you will complete a class activity available online.
- *In-class activities (hybrid or online).* For three of the units in this course, you can choose whether you will complete the online D2L activities OR attend the class in person. These three units are: Unit 5--Technology Transfer and Cultural Issues, Unit 6—Quality of Life Issues, and Unit 7--Ethics. In each of these units, you will have homework/classwork activities. More details on these assignments will be distributed in class. The D2L activities are available on the class website.

Research Exercises

In this class, you must complete two research exercises instead of one research paper. For each research exercise, the class will be given a topic or an article (or articles) related to the content of this class. There are detailed instructions for each research exercise—these are available on the D2L website. Research exercise 1 will focus on how a culture outside the US has changed in response to the internal and external pressures related to technology. Research exercise 2 will require you to compare technological developments from at least two different countries. The narrative for each of the research exercises must be at least 5 pages double-spaced (1,250 words each). Detailed instructions for both research exercises are available on the D2L website. Please review these instructions and email your professor if you have any questions.

*All research exercise will be submitted first to **ETS Criterion** before submitting them to me. Any paper not submitted to ETS Criterion first will not be graded, and will automatically receive a grade of "0" for that assignment. ETS Criterion is a program that will give you feedback on possible spelling, grammatical and mechanical errors in your writing. This program should be used to improve your writing prior to final submission for grading. You may submit your writings to ETS Criterion as many times as you would like prior to the due date to improve your score on the final product. As such, you should begin working on assignments early so that you will have time to work with ETS Criterion to fix any errors in the writing prior to being graded. You will be graded down for any fixable errors that you did not fix that Criterion pointed out. Keep in mind that Criterion doesn't find some errors and finds "errors" that might not be errors. As well, Criterion does not make corrections for you, but rather points out possible errors and you must decide if it needs to be fixed, and if so, how to fix it. You must think critically when editing your*

papers and not just blindly do as Criterion says. This program will be discussed more in class and I will post some additional information on this program on the D2L website.

Research Exercise 1 Due Dates

- **9/20/12, Research Exercise 1 Draft 1 DUE:** By 4:00 pm on 9/20/12, you must submit your rough draft to Criterion. You can submit your essay to Criterion multiple times. You must submit your draft to Criterion and email your first draft of your research exercise and your reference articles to Dr. Backer by 4:00 pm on 9/20/12.
- **9/27/12:** You will receive content feedback on your essay from Dr. Backer by 9/27/12.
- **10/11/12, Research Exercise 1 Final Paper DUE:** You should email your final draft of your research exercise (along with any additional reference articles) to Dr. Backer by 4:00 pm on 10/11/2012. Also, you should submit your research exercise to Criterion and fix any fixable errors. You should also submit a copy of your Research Exercise 1 Final Paper to the D2L dropbox by 4:00 pm.

Research Exercise 2 Due Dates

- **11/1/12, Research Exercise 2 Draft 1 DUE:** By 4:00 pm on 11/1/12, you must submit your rough draft to Criterion. You can submit your essay to Criterion multiple times. You must submit your draft to Criterion and email your first draft of your research exercise and your reference articles to Dr. Backer by 4:00 pm on 11/1/12.
- **11/8/12:** You will receive content feedback on your essay from Dr. Backer by 11/8/12.
- **11/20/12, Research Exercise 2 Final Paper DUE:** You should email your final draft of your research exercise (along with any additional reference articles) to Dr. Backer by 4:00 pm on 11/20/2012. Also, you should submit your research exercise to Criterion and fix any fixable errors. You should also submit a copy of your Research Exercise 1 Final Paper to the D2L dropbox by 4:00 pm.

Final Exam (Oral Presentation)

Your final exam will require you to synthesize the topics and materials covered in the course. Your final exam will be a Powerpoint presentation. If you are attending the class 100% online, you will complete an individual oral presentation. If you are attending the hybrid class, you will complete your final exam presentation in class as a group. You must attend at least two units in the hybrid class in order to complete the in-person final exam exercise.. More information about the exam is available on the Desire2Learn website for this class.

For those in the hybrid class, your instructor will be assigning you to your group and notifying you of your group assignment during class on 12/4/12.

Class Format

Tech198 is organized as a series of units or instructional topics. Within each unit there are objectives, assigned readings, activities, media, and evaluation measures. ***The units are NOT covered in the order they are listed here. Check the course schedule and the WebCT course web site for the order and dates for each unit.*** Your instructor is hopeful that you will ultimately become enthusiastic about the material presented within the realm of this field, and that you will be willing to share your ideas with your fellow classmates throughout the coming term.

Outline of Course Content and Unit Objectives

Unit 1: Nature of Science & Technology

Objectives:

- a. Contrast the concepts of science and technology.
- b. Describe the evolution of “modern science” as a Western construct.
- c. Investigate several prevailing attitudes toward technological changes and innovations.
- d. Illustrate examples of technology dependence and technology traps.

This unit has been developed as a multimedia learning experience for students and is contained on a CD. It has five sections: What is Science? What is Technology?, Attitudes Toward Technology, Technology Dependence and Technology Traps, and Impact of Technology on Society. Refer to Desire2Learn for details on how to complete this activity.

Textbook Readings

Markert & Backer, ch. 1 [Science, Technology and Society]

Markert & Backer, ch. 11 [Social Response to Technological Changes]

Unit 2: The History of Technology and Culture

Objectives:

- a. Analyze the development of technology over time and in different cultures.
- b. Synthesize the contributions of China and Islam to modern science and technology.
- c. Compare Western and non-Western contributions in the history of technology.

This unit has been developed as a web-based multimedia learning experience for students. It has these three main sections: Technology and China, Technology and Islam, and Medieval Technology in Europe. Refer to Desire2Learn for details on this activity.

Unit 3: Technology and Work

Objectives:

- a. Investigate how work has evolved since the Industrial Revolution and how technology has influenced this evolution in the US and in other countries.
- b. Describe the changes in technology and work since the Industrial Revolution and the interplay of this history with other significant historical events.
- c. Analyze the effect of the work environment on different groups in society throughout the history of “modern work.”
- d. Discuss the nature of industrial work in the Twentieth Century? How do "smart technologies" affect white collar workers? What does machine-pacing and de-skilling do to blue-collar workers?

This unit has been developed as a multimedia learning experience for students and is available on a CD. It has seven sections: The Industrial Revolution, Industrialization of Society in the 19th Century, Workplace of 1900, Scientific Management, The Development of the Assembly Line, Consumerism in the West, and the Nature of Work Today? Please refer to Desire2Learn for details on how to complete this activity.

Textbook Readings

Markert & Backer, ch. 6 [Manufacturing and Production Enterprises]

Unit 4: Technology and Gender Issues

Objectives:

- a. Characterize the gender-related contexts of technology development.
- b. Synthesize the stereotypes of "men's work" and "women's work" as they relate to technology.
- c. Contrast how work in the home has evolved as compared to work in the marketplace.
- d. Describe the evolving role of women in society since the beginning of the 20th century and how technology has affected this development.
- e. Analyze the effects of technology on women from different cultures and societies.

This unit has been developed as a multimedia learning experience for students and is available on a CD. It has six sections: Technology and Gender; Women at work before 1900; Women at work, 1900 to today; Women working around the world; Attitudes of, and about, Women in Technology; and Gender-based Technologies. Please refer to Desire2Learn for details on how to complete this activity.

Unit 5: Technology Transfer and Cultural Issues

Objectives:

- a. Discuss the culture-related contexts of technology development.
- b. Describe the mechanisms of technology transfer.
- c. Analyze possible uses of technology transfer among countries.
- d. Discuss how technology impacts the division between the "haves" and the "have-nots" in the world
- e. Compare technological problem solving using "technology fixes" versus social engineering.

You can either complete this unit in class (please see schedule at end) OR through the online D2L component.

Textbook Readings

Markert & Backer, ch. 7 [Technology Transfer]

Markert & Backer, ch. 8 [Appropriate Technology]

The relation between technology and culture by Patricia Backer available at

http://www.engr.sjsu.edu/pabacker/tech_culture.htm

D2L Articles (the following articles are available on the D2L website)

Dream machines - Cars in China (2005, June 4). The Economist.

China's road death rate highest in world (2008, March 21). China News Daily.

China's Car-Industry Slowdown Blip Before Next Boom. (2012, April 30). Advertising Age.

Electric cars in China, Not yet. (2012, May 5). The Economist.

Sales in China Fuel BMW's Profit (2012, May 3). The New York Times.

Ding, M., Wang, Y., & Wang, S. (2011, May). An analysis of causes and countermeasures for reconstruction and integration of automobile industry in China. Asian Social Science, 7(5), 215-218.

Unit 6: Quality of Life Issues

Objectives:

- a. Describe those elements that are essential to the QOL in societies around the world.
- b. Contrast opposing points of view to determine the effects of technology on the environment.
- c. Describe the impact of technology on the quality of life of people from different countries

You can either complete this unit in class (please see schedule at end) OR through the online D2L component.

Textbook Readings

Markert & Backer, ch. 9 [Environmental Issues]

D2L Articles (the following articles are available on the D2L website)

- Dempsey, J. X. (2009). Civil liberties in a time of crisis. *Human Rights*, 29(1), 8-10.
- Zinam, O. (1989). Quality of Life, quality of the individual, technology and economic development, *American Journal of Economics and Sociology*, 48(1), 55-68.
- Learning to live with Big Brother (2007, September 17). *The Economist*.

Unit 7: Technology Ethics and Society

Objectives:

- a. Clarify values with regard to the impact of unplanned rapid change on the persons who live in newly industrialized countries.
- b. Review several contemporary technology innovations and developments and the ethics associated with responsible technology decision-making.
- c. Discuss the issues related to stem cell technologies
- d. Analyze the effect of information technology on individual and workplace privacy.

You can either complete this unit in class (please see schedule at end) OR through the online D2L component.

Readings

Markert & Backer, ch. 2 [Biotechnology]
 Markert & Backer [Information Technologies]
 Markert & Backer, ch. 12 [Social Institutions]

D2L Articles (the following articles are available on the D2L website)

- Davis, H. B. (2004, Winter). Ethics in a digital age. *Threshold*, 18-21. Available: <http://i.ciconline.org/CiCWebResources/Articles/W04-ethics.pdf>
- Lind, M. (2011). A framework for addressing ethics in the Digital Age. *Information Systems Educators Conference Proceedings*, 28(1624). Available: <http://proc.isecon.org/2011/pdf/1624.pdf>
- Myhrvold, C. (2012, August 3). Study Reveals a Confused View of Mobile Phone Privacy and Security. *Technology Review*. Available: <http://www.technologyreview.com/news/428656/study-reveals-a-confused-view-of-mobile-phone/?nlid=nldly&nld=2012-08-03>
- Pew Forum on Religion & Public Life (2008, July 17). Stem Cell Research at the Crossroads of Religion and Politics. Available: <http://www.pewforum.org/Science-and-Bioethics/Stem-Cell-Research-at-the-Crossroads-of-Religion-and-Politics.aspx>

**Schedule AE/ME/CMPE/ENGR/Tech 198
Fall 2012**

Date	Unit	Topic	Assignments	Readings
*8/23/12		Opening Activities	Meet in Engr 189 at 9:00 am	
8/28/12; 8/30/12	1	The Nature of Science and Technology	Unit 1A, Class Activities are due to Dr. Backer by 4:00 pm on 8/30/12	Markert & Backer, ch. 1, 11
9/4/12; 9/6/12	1	The Nature of S&T	Unit 1B, Class Activities are due to Dr. Backer by 4:00 pm on 9/6/12	
9/11/12; 9/13/12	2	History of Technology	Unit 2 assignment due to Dr. Backer by 4:00 pm on 9/13/12	
Notify Dr. Backer by 9/18/12 if you plan to attend the in-class sessions for Unit 7 (ethics)				
9/18/12; 9/20/12	Research Exercise Draft 1 due		<i>You must email your first draft of your research exercise and your reference articles. Also, you must submit your draft essay to Criterion. The deadline is 4:00 pm on 9/20/12.</i>	
*9/25/12	7	Technology and Ethics	Meet in Engr 189 at 9:00 am	Markert & Backer ch. 12 [Social Institutions]
*9/27/12	7	Technology and Ethics	Meet in Engr 189 at 9:00 am	Markert & Backer, ch. 2 [Biotechnology] Stem Cell Research at the Crossroads of Religion and Politics.
Research Exercise 1 content feedback on Research Exercise Draft 1 essay will be emailed to you by Dr. Backer				
*10/2/12	7	Technology and Ethics	Meet in Engr 189 at 9:00 am	Markert & Backer [Information Technologies] Ethics in a digital age. A framework for addressing ethics in the Digital Age Study Reveals a Confused View of Mobile Phone Privacy
*10/4/12	7	Technology and Ethics	Unit 7 ONLINE-ONLY assignment due to Dr. Backer by 4:00 pm on 10/4/12	
10/8/12		Rewrites due for Units 1 (Nature of Science & Technology) and 2 (History of Technology) (if applicable)		
10/9/12; 10/11/12	Research Exercise Final Draft 1 due		<i>You must email your final draft of your research exercise and any additional reference articles. Also, you must submit your draft essay to Criterion. The deadline is 4:00 pm on 10/11/12. In addition, you must submit your research exercise to Desire2Learn.</i>	
10/16/12; 10/18/12	3	Technology and Work Part 1	Unit 3, Class Activities 1-4 due to Dr. Backer by 4:00 pm on 10/18/12	Markert & Backer, ch. 6 [Manufacturing and Production Enterprises]
10/23/12; 10/25/12	3	Technology and Work Part 2	Unit 3, Class Activities 5-7 due to Dr. Backer by 4:00 pm on 10/25/12	
Notify Dr. Backer by 10/30/12 if you plan to attend the in-class sessions for Unit 5 (Technology Transfer & Appropriate Tech)				
10/30/12; 11/1/12	Research Exercise 2 Draft 1 due		<i>You must email your first draft of your research exercise and your reference articles. Also, you must submit your draft essay to Criterion. The deadline is 4:00 pm on 11/1/12.</i>	
*11/6/12	5	Technology Transfer	Meet in Engr 189 at 9:00 am	Markert & Backer, ch. 7 [Technology Transfer]
*11/8/12	5	Technology Transfer	Meet in Engr 189 at 9:00 am	The relation between technology and culture

Research Exercise 2 content feedback on Research Exercise 2 Draft 1 essay will be emailed to you by Dr. Backer				
11/12/12		Rewrites due for Unit 7 (Technology and Ethics), Unit 3 (Technology and Work), and RE1 (if applicable)		
*11/13/12	5	Appropriate Technology	Meet in Engr 189 at 9:00 am Unit 5 ONLINE-ONLY assignment due by 4:00 pm on 11/13/12	Markert & Backer, ch. 8 [Appropriate Technology] D2L Articles on cars in China
11/20/12	Research Exercise 2 Final Paper Due		<i>You must email your final draft of your research exercise and any additional reference articles. Also, you must submit your draft essay to Criterion. The deadline is 4:00 pm on 11/20/12. In addition, you must submit your research exercise to Desire2Learn.</i>	
Notify Dr. Backer by 11/20/12 if you plan to attend the in-class sessions for Unit 5 (Technology Transfer & Appropriate Tech)				
11/15/12, 11/20/12; 11/27/12	4	Gender and Technology	Unit 4, Class Activities due to Dr. Backer by 4:00 pm on 11/27/12	
*11/29/12	6	Quality of Life	Meet in Engr 189 at 9:00 am	Quality of Life, quality of the individual, technology and economic development
*12/4/12	6	Quality of Life	Meet in Engr 189 at 9:00 am	Markert & Backer, ch. 9 [Environmental Issues]
Students in hybrid class are notified of their group assignments for the final exam presentation				
*12/6/12	6	Quality of Life	Meet in Engr 189 at 9:00 am Unit 6 ONLINE-ONLY assignment due by 4:00 pm on 12/6/12	Learning to live with Big Brother Civil liberties in a time of crisis
12/12/12	Rewrites due for Unit 5 (Technology Transfer), Unit 4 (Gender and Technology), Unit 6 (Quality of Life), and RE2 (if applicable)			
*12/18/12	Final Exam for Hybrid Students: Tuesday, December 18, 0715-0930. Online only students must submit their final exam by 9:30 am on 12/18/12.			

* For three of the units (Units 5, 6, and 7), you can either attend the in-person sessions in Engr 189 OR complete the online D2L material. If you are going to attend the in-person class, you must notify your instructor. Your instructor will email all the students in the class one week before each unit begins. If you attend the in-person sessions, your instructor will email you additional materials to prepare for the session in advance.