Course information:  
Copy and paste current course information from Class Search/Course Catalog.

<table>
<thead>
<tr>
<th>Academic Unit</th>
<th>Family Dynamics</th>
<th>Department</th>
<th>Sociology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>SOC</td>
<td>Number</td>
<td>334</td>
</tr>
</tbody>
</table>

Is this a cross-listed course?  
If yes, please identify course(s)  
No

Is this a shared course?  
(choose one) If so, list all academic units offering this course  
no

Course description:  
(choose one)

Requested designation: (Choose One)  
Note- a separate proposal is required for each designation requested

Eligibility:  
Permanent numbered courses must have completed the university's review and approval process.  
For the rules governing approval of omnibus courses, contact Phyllis.Lucie@asu.edu or Lauren.Leo@asu.edu.

Submission deadlines dates are as follow:  
For Fall 2015 Effective Date: October 9, 2014  
For Spring 2016 Effective Date: March 19, 2015

Area(s) proposed course will serve:  
A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:  
Complete and attach the appropriate checklist

- Literacy and Critical Inquiry core courses (L)  
- Mathematics core courses (MA)  
- Computer/statistics/quantitative applications core courses (CS)  
- Humanities, Arts and Design core courses (HU)  
- Social-Behavioral Sciences core courses (SB)  
- Natural Sciences core courses (SQ/SG)  
- Cultural Diversity in the United States courses (C)  
- Global Awareness courses (G)  
- Historical Awareness courses (H)

A complete proposal should include:  
- Signed General Studies Program Course Proposal Cover Form  
- Criteria Checklist for the area  
- Course Catalog description  
- Course Syllabus  
- Copy of Table of Contents from the textbook and list of required readings/books

Respectfully request that proposals are submitted electronically with all files compiled into one PDF. If necessary, a hard copy of the proposal will be accepted.

Contact information:  
Name: Marcella Gemelli  
Phone: 480-965-6978

Mail code: 3701  
E-mail: Marcella.Gemelli@asu.edu

Department Chair/Director approval: (Required)  
Chair/Director name ( Typed): Richard Fabes  
Date: 

Rev. 1/94, 4/95, 7/98, 4/00, 1/02, 10/08, 11/11/ 12/11, 7/12, 5/14
Arizona State University Criteria Checklist for

LITERACY AND CRITICAL INQUIRY - [L]

Rationale and Objectives

Literacy is here defined broadly as communicative competence—that is, competence in written and oral discourse. Critical inquiry involves the gathering, interpretation, and evaluation of evidence. Any field of university study may require unique critical skills that have little to do with language in the usual sense (words), but the analysis of written and spoken evidence pervades university study and everyday life. Thus, the General Studies requirements assume that all undergraduates should develop the ability to reason critically and communicate using the medium of language.

The requirement in Literacy and Critical Inquiry presumes, first, that training in literacy and critical inquiry must be sustained beyond traditional First Year English in order to create a habitual skill in every student; and, second, that the skill levels become more advanced, as well as more secure, as the student learns challenging subject matter. Thus, two courses beyond First Year English are required in order for students to meet the Literacy and Critical Inquiry requirement.

Most lower-level [L] courses are devoted primarily to the further development of critical skills in reading, writing, listening, speaking, or analysis of discourse. Upper-division [L] courses generally are courses in a particular discipline into which writing and critical thinking have been fully integrated as means of learning the content and, in most cases, demonstrating that it has been learned.

Notes:

1. ENG 101, 107 or ENG 105 must be prerequisites
2. Honors theses, XXX 493 meet [L] requirements
3. The list of criteria that must be satisfied for designation as a Literacy and Critical Inquiry [L] course is presented on the following page. This list will help you determine whether the current version of your course meets all of these requirements. If you decide to apply, please attach a current syllabus, or handouts, or other documentation that will provide sufficient information for the General Studies Council to make an informed decision regarding the status of your proposal.

Revised April 2014
Proposer: Please complete the following section and attach appropriate documentation.

## ASU - [L] CRITERIA

TO QUALIFY FOR [L] DESIGNATION, THE COURSE DESIGN MUST PLACE A MAJOR EMPHASIS ON COMPLETING CRITICAL DISCOURSE--AS EVIDENCED BY THE FOLLOWING CRITERIA:

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CRITERION 1: At least 50 percent of the grade in the course should depend upon writing assignments (see Criterion 3). Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report. <em>In-class essay exams may not be used for [L] designation.</em></td>
</tr>
<tr>
<td>✗</td>
<td></td>
<td>Syllabus page 4</td>
</tr>
</tbody>
</table>

1. Please describe the assignments that are considered in the computation of course grades--and indicate the proportion of the final grade that is determined by each assignment.

2. Also:

   Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-1".

---

### CRITERION 2:

The writing assignments should involve gathering, interpreting, and evaluating evidence. They should reflect critical inquiry, extending beyond opinion and/or reflection.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Discussion Board and Writing Assignment</td>
</tr>
</tbody>
</table>

1. Please describe the way(s) in which this criterion is addressed in the course design.

2. Also:

   Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-2".

---

### CRITERION 3:

The syllabus should include a minimum of two writing and/or speaking assignments that are substantial in depth, quality, and quantity. Substantial writing assignments entail sustained in-depth engagement with the material. Examples include research papers, reports, articles, essays, or speeches that reflect critical inquiry and evaluation. Assignments such as brief reaction papers, opinion pieces, reflections, discussion posts, and impromptu presentations are not considered substantial writing/speaking assignments.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>✗</td>
<td></td>
<td>Writing Assignments</td>
</tr>
</tbody>
</table>

1. Please provide relatively detailed descriptions of two or more substantial writing or speaking tasks that are included in the course requirements.

2. Also:

   Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-3".
### CRITERION 4:

These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. *Intervention at earlier stages in the writing process is especially welcomed.*

Syllabus - page 7

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>✗</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Please describe the sequence of course assignments—and the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments.

2. **Also:**

   Please **circle, underline, or otherwise mark** the information presented in the most recent course syllabus (or other material you have submitted) that verifies **this description** of the grading process—and label this information "C-4".

C-4
Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

<table>
<thead>
<tr>
<th>Criteria (from checksheet)</th>
<th>How course meets spirit (contextualize specific examples in next column)</th>
<th>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 50% of grade in course depends on writing</td>
<td>In one course design, we assign seven discussion boards worth 20 points each and two 2-3 page writing assignments worth 25 points each for a total of 190 points. 145 points come from quizzes. Thus, over 50% of the grade depends on writing. Discussion boards ask students to answer a variety of questions relating to the material for the week. Students are required to compose their answers and responses to other students as if they were mini-essays – each discussion board must be a minimum of 350 words. Responses must include 4 APA formatted references to course or outside materials, while subscribing to proper grammar and punctuation. Short writing assignments are also graded according to answering the questions thoroughly and persuasively, referencing course or outside materials in APA format.</td>
<td>Syllabus - page 4 labeled C-1</td>
</tr>
<tr>
<td>2 Composition tasks involve gathering, interpretation and evaluation of evidence</td>
<td>As described above, students must interpret and evaluate course materials in both discussion board responses and in the short writing assignments. In one discussion board, students are required to find an outside article from The New York Times or Wired magazine, for example, and interpret and apply this reading to the subject for the week. Students are required to find at least one outside reference in a scholarly, peer-reviewed journal</td>
<td>Sample Discussion Board and Writing Assignment attached labeled C-2</td>
</tr>
<tr>
<td>3. Minimum of two substantial writing tasks that require in depth engagement with the material</td>
<td>Two short writing assignments 2-3 pages in length require the interpretation and effective communication of that interpretation through effective writing. Outside research, as well as use of textbook readings are requirements for the papers.</td>
<td>Writing Assignments attached labeled C-3</td>
</tr>
<tr>
<td>4. Students receive timely feedback</td>
<td>In order to provide students in large sections of SOC 334 with better feedback in a timely manner we have recruited top students who have previously taken the course and have demonstrated excellent writing and APA skills to serve as TAs. We break up students into groups ranging from 10 to 20 students per group, then the TAs work closely with their assigned group to help students improve their writing performance on discussion board assignments as well as writing assignments. We also take time both before and during the semester to do trainings and quality assurance checks with the TAs to ensure the students are getting accurate, timely, and helpful feedback. In the 7.5 week course, short writing assignments are assigned in Week 2 and in Week 5 thus allowing enough time for feedback to be provided before the second writing assignment. The comments program for writing assignments in Blackboard offer an easy way for students to access their feedback.</td>
<td>Syllabus - page 7 labeled C-4</td>
</tr>
</tbody>
</table>
Literacy criteria 2: Composition tasks involve gathering, interpretation and evaluation of evidence

C-2 Sample discussion board

Throughout the course you have examined the role of technology and its impact on people and their relationships, institutions, politics, war, health, etc. This week in particular you have learned about nanotechnology specifically in regard to its ability to help with significant social issues. In this vein, critically examine the benefits and drawbacks of nanotechnology. Discuss whether or not you feel nanotechnology can help with our future. To do this, find and discuss an article regarding nanotechnology and society (you can do a Google search, however, it will be more fruitful to search a particular publication such as The New York Times, The Wall Street Journal, Wired magazine, Nanotechnology & Society) and answer the following questions:
1. How does the development or implementation or use of nanotechnology relate to a certain aspect of society (i.e. social relations, medical innovation, ethical questions, Third World development, politics, etc.)? IF YOUR ARTICLE DOES NOT INCLUDE THIS (i.e., it is only describing the science of nanotechnology), YOU SHOULD FIND ANOTHER ARTICLE.
2. Link and describe the relation to any of the readings or videos you have had in the course.
3. Explain the importance of this nanotechnology development to your classmates in order to persuade them to read your article.

C-2 Sample writing assignment

This week you have read about issues such as race and gender that may be impacted by (or have an impact upon) technological development and implementation. Based on what you have learned from the material this week and from a peer reviewed scholarly article you find, describe how you believe race or gender or class or physical ability or age or cultural bias can either be reinforced or countered in sociotechnical systems. In other words, find an example (like the photography example by Dyer or the cockpit design example by Weber) of technology that may intentionally or unintentionally be biased. The peer reviewed article you found should provide an example that substantiates your opinion. Your paper should address the following questions:
1. What is the sociotechnical system or technology impacted by bias?
2. How is it biased (i.e. race, class, gender, etc.)?
3. (If you found technology reinforcing bias) How is the bias of the technology reinforced and how can it possibly be remedied? OR (If you found technology countering bias) How is the technology countering bias?
4. What are the larger implications of technological bias on society as a whole?

Make sure that you revisit the course readings, lectures and any other relevant materials. You must include at least two course readings in your analysis. In addition to using the course readings you must also include at least one outside source that is from a peer-reviewed scholarly journal.
C-3 Sample writing assignment

This week you have read about interpersonal communication issues mainly in online communities. You have also read some commentary regarding the impact of technology on our relationships and communities; how reliant we are on various technologies and what this means for progress. This writing assignment is designed to give you an opportunity to apply the concepts you have read about to your experience of going without a chosen technology (i.e. cell phone, internet, car, microwave, etc.) for 12 hours.

In a .doc (Word) document of about 800-1200 words, using APA format and citations (hint: any references cited throughout the course are in APA format!), write a report answering the following questions:

- Were you able to go 12 hours without your chosen technology? Why or why not?
- Did you find this experiment difficult or easy? What did you choose to do instead of using your chosen technology? (For example, if you chose a cell phone, how did you contact people?)
- What conclusions can you make based upon your experience with this experiment? (For example, overall, were you inconvenienced? Were your interpersonal relationships disrupted or questioned? Did you appreciate your chosen technology more or did you feel a certain feeling of freedom without it?)

Make sure that you revisit the course readings and lectures regarding the concepts around technology use to support your experiences. You must include at least two course readings in your analysis.

C-3 Sample writing assignment

This week you have learned from political theorist, Langdon Winner that technological artifacts are political. Examples are aircraft, bus overpasses and tomato harvester. You have also learned that political systems influence technological development with globalization impacting global economic and political integration. The Millennium Development Goals (MDG) established by the United Nations are an attempt to establish global solidarity around pertinent issues that would benefit the human race.

Based on what you have learned from the material this week and from a peer reviewed scholarly article you find, describe how you believe at least one of the MDGs can be met through technological development, innovation or implementation. In other words, find an example of a technological artifact (like aircraft) that may achieve that goal. You should discuss the politics or political system influence of the technology and the impact on meeting the MDG. The peer reviewed article you find should provide an example that substantiates your opinion. Thus, your paper should address the following questions:

1. What is the MDG that can be met through technological development, innovation or implementation?
2. What is the technological artifact and how does it meet the MDG you identified?
3. How is the development or implementation of the technological artifact influenced by politics or a political system?
4. How does meeting the MDG through the example of technology you provide integrate our global world?

Make sure that you revisit the course readings, lectures and any other relevant materials. You must include at least one course reading in your analysis. In addition to using the course readings you must also include at least one outside source that is from a peer-reviewed scholarly journal. Please see the helpful tips on how to search for academic journal articles and how to write your paper in APA format located in the course site.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>General/Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 334</td>
<td>Technology and Society</td>
<td>3</td>
<td>L or EE</td>
</tr>
</tbody>
</table>

- **Development of technology in relation to society, work, science, the environment, public health, and cultural values related to social change.**
- **Allow multiple enrollments:** No
- **Primary course component:** Lecture
- **Repeatable for credit:** No
- **Grading method:** Student Option

**Offered by:**
- Interdisciplinary Arts and Sciences – School of Social and Behavioral Sciences
- Pre-requisite: Minimum 45 hours; Credit is allowed for only ASB 344 or SOC 334
- Pre-requisite: Minimum 45 hours; Credit is allowed for only ASB 344 or SOC 334
Syllabus

Instructor: Dr. Marcella Gemelli  
Email: Marcella.Gemelli@asu.edu

Teaching Assistants (TAs)/Emails: Cindy Ribar caribar@asu.edu  
Additional teaching assistants will be assigned: look for an announcement regarding your specific TA

When emailing the instructor or TA, please include “SOC 334 Online” in the subject line. We are teaching more than one class this semester, and if we don’t know which class you are in, it will delay our ability to respond to you. Many questions can be answered by information in this syllabus and the course site. If you ask a question that can be answered through one of these sources, you will be redirected to them. Thank you!

*This syllabus and the content and dates therein may be modified at the instructor’s discretion.*

TEXTBOOK AND COURSE MATERIALS

Required Textbook  

Other Readings  
Additional required readings will be made available through the course site.

Required Internet-related Materials  
Because this course is delivered entirely online, it is an expectation that you have a reliable computer and internet connection for successful participation in the course. This includes the following:

- **A hard-wired, high-speed internet connection:** Non-stable and/or slow internet connections will not excuse failures to complete any of the assignments by their due dates.

- **(.doc) capability:** You MUST be able to create, save and submit homework assignments in (.doc) format.

- **A functioning asu.edu email account:** You MUST have an asu.edu email account from which you can send and receive emails. Your personal email account(s) will not suffice for this course.

Knowledge of Blackboard:  
This course uses Blackboard to deliver content. It can be accessed through MyASU at http://my.asu.edu. To monitor the status of campus networks and services, visit the System Health Portal http://syshealth.asu.edu. To contact the MyASU Service Center, you have two options:

- Call toll-free at 1-855-278-5080
- Visit the MyASU Service Center (my.asu.edu/service) to get personalized support through 24/7 live chat or by submitting your request online.

COURSE DESCRIPTION AND OBJECTIVES  
Technology is a powerful force in the modern world. It has been hailed as a way to cure everything from world hunger to bad breath. Nevertheless, technological development is not an unqualified blessing: technologies frequently have negative effects for some people, at some times, in some circumstances. Some negative
consequences are unanticipated, some are predictable, and some are intentional features of the design or implementation. But because technologies are rightly seen as indispensable for solving problems and improving the quality of life, societies invest in the design and development of technologies, hoping to shape and direct it.

This class will explore the relationship between technology and society to understand where technologies come from, how they are used, and how they may be shaped to create better futures. By the end of this course, you should be able to critically assess and answer the following questions:

- Where do technologies come from and why do they work as they do? Technologies are human creations, and so their forms and uses reveal the interests and purposes of the people, institutions, and societies that build them.

- How do technologies shape our world? We will explore the variety of ways by which machines and techniques become embedded in society and thereby shape institutions, relationships, and values.

- What kind of future do we want? Many of the articles we will read argue that certain values are of key importance to a just society, which challenges us to consider which values we should hold most dear and defend.

- How can we make decisions about technology that will get us to the future we want? Once we understand the role of technology in society and the world we want to build, we must develop strategies for getting us from here to there.

**COURSE POLICIES**

**Sensitive Material**

Teaching sociological concepts often includes the examination of sensitive (and sometimes controversial and potentially offensive) material through assigned textbook readings, videos, and other supplemental media. In online courses, videos, movie clips, and other media such as blogs or newspaper articles can engage students in the learning process above and beyond the assigned textbook readings and exams. This syllabus and your enrollment in this course signify that you are aware of the sensitive and potentially controversial and offensive material that may be included as part of the course. Should you have a concern about reading, viewing or discussing such material, please email Dr. Gemelli during the first week of the semester to discuss.

**Disability Resources**

ASU Disability Resource Services coordinates accommodations and services for all students who are eligible. If you have a disability for which you wish to request accommodations and have not contacted DRS, please do so as soon as possible. Qualified students with disabilities who require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester via email. For additional information, visit: [www.asu.edu/studentaffairs/ed/drc](http://www.asu.edu/studentaffairs/ed/drc) for the Tempe campus center and links to the centers on other campuses.

**Academic Integrity**

ASU’s Academic Integrity policy ([http://provost.asu.edu/academicintegrity/policy](http://provost.asu.edu/academicintegrity/policy)) holds students to a code of conduct that defines academic dishonesty to include cheating, plagiarism, academic deceit, falsifying records, and inappropriate collaboration. In addition, this policy specifies a range of sanctions that faculty and instructors can choose from when violations occur. All ASU students, including those enrolled in this course, are held to the standards in the policy. To increase student awareness, and student-instructor discussion of these issues, students are required to read the SSFD Academic Integrity and Dishonesty powerpoint and to answer select questions from the powerpoint in the Syllabus and Academic Integrity quiz located in the course site.

**COURSE EXPECTATIONS**

**Demanding Compressed Schedule**
This course is taught entirely online in a compressed 7.5 week format. To be successful in this course, you must complete weekly book readings and consistently participate online by reviewing posted lecture material and completing assignments. Because this is an accelerated course requiring the same amount of information to be covered as in an entire semester course, it is imperative and crucial that you stay focused, organized and diligent in keeping up with the readings and assignments. ORGANIZATION IS A MUST!!! As I understand many of you are juggling school, work, family and other obligations, I highly recommended you list all of the assignment due dates in your calendar at the onset of the course. TIME MANAGEMENT IS CRUCIAL!!!

In addition, to be successful in this course you should do the following:

- Check your asu.edu email account and “Announcements” DAILY for updates in course information, schedule changes, etc.

- Check the Course Questions discussion board in the course site for answers to frequently asked questions.

- Read and follow all course and assignment directions. Ask for help early on (not the day before or the day an assignment is due) if you are not sure how to proceed.

- Complete all assignments on schedule. NO LATE WORK WILL BE ACCEPTED!!!

Communication

Email Correspondence

- Please email the TA with any inquiries regarding assignment directions, assignment due dates, and assignment grades, and/or technical or substantive quiz questions. Please email Dr. Gemelli with any content related questions or issues of a personal nature. Use our email addresses located at the beginning of this syllabus and in the course site. Remember, you must use your asu.edu email account for correspondence.

- If you email us between 8:00 am Monday through 5:00pm on Friday, you can expect a response in 24-36 hours, but perhaps not before then. If you email us Friday after 5:00pm, during the weekend or holiday, you may not receive a response until the following business day. If you have a question on an upcoming assignment, please make sure to give us plenty of time to answer your inquiry.

- Please keep in mind that your correspondence with us is considered business/professional. This means that you should email us using proper forms of address while also composing your messages in complete sentences, without the use of text-messaging language (e.g. “u” for “you.”). You should be courteous and respectful in the tone and content of your emails to us, as we will be in our emails to you.

Deadlines and Grading

Time Zone Differences

All due dates and deadlines in this course are in conjunction with Arizona (Mountain Standard) time. If you reside outside of Arizona or outside of the United States while taking this course, you are responsible for taking into consideration the time-zone differences and making any time-difference calculations and adjustments that are necessary to complete your assignments on time (according to Arizona time).

Policy on Missed Deadlines

Discussion board and writing assignments are typically available for five to seven days before the deadline, and quizzes are open for a designated period of time (see Course Schedule for all assignment due dates). Last minute work or personal conflicts are not justification for missed assessments, nor are computer/internet problems. Please note that links for submitting your assignments and quizzes close after the deadlines. Therefore, if you try to submit your assignment, or log on to take your quiz even only seconds after the deadline has passed, you will not be
able to do so. You should **not** email Dr. Gemelli or the TA your late assignment or ask for an extension for a missed quiz.

Should you experience some type of emergency (personal, medical, weather-related) up until one hour before a deadline, you will need to provide Dr. Gemelli documentation in order to be considered eligible for an extension. Given that appropriate documentation is provided, any decision for an extension is at the discretion of Dr. Gemelli. **Absolutely no exceptions will be considered if you contact Dr. Gemelli within an hour before an assessment is due or AFTER a deadline has passed.**

Should a system-wide problem or outage occur (as determined by the University Technology Office at [http://syshealth.asu.edu/](http://syshealth.asu.edu/)) causing difficulties in submitting assignments or taking quizzes, I will take any actions necessary in order for you to complete your assessments.

**Requests for Incompletes**
I do not give Incompletes. If you remain in this course beyond the withdrawal deadline, you will have completed the course and you will get a letter grade. Therefore, even if you choose to stop participating in the class without officially withdrawing, you will receive a course grade based on the number of points you earned before you ceased to participate divided by the total number of points possible for the course.

**Grading**
A point system, **not percentages**, will be used to determine your final grade for this course. Thus, the number of points you have total at the end of the semester is what will be used to assign your letter grade.

### C-I
**Breakdown of Points Possible in this Course**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syllabus and Academic Integrity Quiz</td>
<td>5</td>
</tr>
<tr>
<td>Discussion Boards</td>
<td>140 (7 @ 20 points each)</td>
</tr>
<tr>
<td>Quizzes</td>
<td>140 (7 @ 20 points each)</td>
</tr>
<tr>
<td>Writing Assignments</td>
<td>50 (2 @ 25 points each)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>335 points</td>
</tr>
</tbody>
</table>

**Grading Scale**
Note: In accordance with the ASU plus-minus grading system, there are no C-, D+, or D- grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>324-335</td>
</tr>
<tr>
<td>A</td>
<td>314-323</td>
</tr>
<tr>
<td>A-</td>
<td>300-313</td>
</tr>
<tr>
<td>B+</td>
<td>290-299</td>
</tr>
<tr>
<td>B</td>
<td>280-289</td>
</tr>
</tbody>
</table>
Extra Credit
Extra credit questions are built into some of the quizzes. If and when another opportunity for extra credit arises, information will be posted in the “Announcements” content area of the course site.

COURSE REQUIREMENTS AND ASSIGNMENTS

Special Note: You will not see the links for submitting your assignments after the deadlines!

**Quizzes**

Syllabus and Academic Integrity Quiz (worth 5 possible points)
This quiz is designed to help you focus on the important information contained in the syllabus and in the academic integrity powerpoint, and to practice taking a quiz in the required test-taking platform, Exam Guard. You will be asked 10 true/false questions. All the material that you will need to know to answer these questions can be found in this syllabus and in the Academic Integrity and Dishonesty powerpoint located in the course site. You will have 20 minutes to complete this quiz.

Quizzes (worth 140 total possible points)
You are required to complete 7 quizzes, each worth 20 points for a combined total of 140 possible points. All quizzes will be based on material from any of the lectures, readings, and videos for the week and will be taken in Exam Guard. Please see the Course Schedule for information concerning what material you are expected to know on each quiz. You will have 40 minutes to complete each quiz. Note that it is a possibility to score more than 20 points on some quizzes with extra questions.

Quiz Information
• Taking the quizzes on a computer with reliable high-speed internet access is critical. If you do not have access to reliable high-speed internet at home, you should take the quizzes at a different location. Regardless of where you take the quizzes you should have a back-up plan in case something should occur with your regular computer. You should ensure that you leave enough time to get to another computer if an issue arises.

Problems and/or technical issues that are not system wide events are not valid reasons for a make-up or extension.

• If you experience technical issues during your exam you MUST call the Help Desk at 1-855-278-5080 and get a "ticket number" from the Help Desk. (Troubleshooting problems on your computer with the Help Desk can take up to an hour or more depending upon the complexity of the issue). If it is determined by the Help Desk that assistance is necessary for you to complete your exam, then you need to email the TA relaying that information. It is at the discretion of the TA to determine what actions may be taken in order for you to complete your exam. No considerations will be made an hour before or after the deadline has passed.

• You must take each quiz in one sitting. You are not permitted to partially complete a quiz, log out, then log back in at a later time and complete it. You are only permitted one chance to take the quiz.

• All quiz grades will be available in the Gradebook immediately after completion. If you are exited out of a quiz at the end of the time allotment, even though you have not finished it, your score on that quiz will be the number
of questions you answered correctly before the time expired. If your score is not posted, email your TA immediately and cc Dr. Gemelli. Appropriate actions will be taken to remedy the matter.

- You will not be given the questions you missed and/or the correct answers when you take your quizzes. If you want general feedback on the types of questions you missed, or what you can do to improve on your next quiz, you can email the TA within one week (seven days) after the quiz’s deadline.

**Note:** You are permitted to use your textbook and notes when taking the quizzes, but collaboration with others is not permitted and constitutes cheating (see Academic Integrity and Dishonesty powerpoint in the course site for more information). Knowing that the use of textbooks/notes is not prohibited during a quiz may give students a false sense of security. The quizzes are timed, and you will not have time to look up answers in the textbook if you are unfamiliar with the material. At best, you will have time to double-check a fact you recall from the reading. Study guides are not provided in this course. Thus, the best way to maximize your performance on quizzes is to complete the assigned readings, review all lectures, view all videos, take good notes and review and study your notes and lectures for preparation. Please email Dr. Gemelli with any requests for additional test taking strategies.

**Discussion Board Posts** (worth 140 possible points)
You are required to complete 7 discussion board posts each worth 20 points for a combined total of 140 possible points. These consist of posting your answers to questions regarding the course readings, lecture, or supplemental material for the week while also responding to your classmates’ posts. You will find the specific questions and instructions located in their respective due date weeks in the course site.

**Discussion Boards Grading Rubric**

20 – This grade reflects the outstanding nature of the posts. The posts are innovative, original and insightful. The writer is clearly engaged in the topics, establishing very clear arguments or statements backed up by class material or other observations. Writing is clear, thoughtful and organized. Posts to other students are clear and thoughtful. Very little or no grammatical errors. Initial response and two responses to other students were made 24 hours apart.

18 – The posts are excellent. The posts are innovative and insightful, but may be less original than in a 20 post. The writer is engaged in the topics, establishing arguments or statements backed up by observations. References to course material may not be as strongly established as in a 20 post. Writing is clear and thoughtful. Posts to other students are clear and thoughtful. Few grammatical errors. Initial response and two responses to other students may not have been made 24 hours apart.

16- The posts are strong, but arguments or statements may not be as innovative or original as in an 18 or 20 post. Some support for arguments or statements is apparent. References to course material may not be specific. The writing may not be clear or organized. Posts to other students may range from being thoughtful to being weak or insubstantial. Few to some substantial grammatical errors. Initial response and two responses to other students may not have been made 24 hours apart. Points may be taken off for only responding to one other student, rather than two.

14 – The posts provide some insight into the assigned questions, but arguments or statements are not clear or are not original. The writing style may not be sufficiently clear to understand the point the writer seeks to make. References to course material may be irrelevant or non-existent. Lack of organization or grammatical errors interfere with flow of posts. Posts to other students may be weak or non-existent. Initial response and two responses to other students may not have been made 24 hours apart. Points may be taken off for only responding to one other student, rather than two.

12 and below – The posts are weak. The posts fail to clearly, concisely or coherently address the assignment questions. References to course material may be irrelevant or non-existent. Organization and grammar may be sloppy. Posts to other students may be weak or non-existent. Posts may be made in the same day.

0 – Did not post
**Short Writing Assignments** (worth 50 possible points)
You are required to complete two short writing assignments worth 25 points each for a total of 50 possible points. The writing assignments will ask you to answer specific questions based on the material covered in class while also bringing in an outside, scholarly reference. These short writing assignments will be submitted using the Dropbox in the course site. You will find specific requirements on these assignments, along with the grading rubric, located in their respective due date weeks in the course site.

**C-4 Grading Feedback for Assignments**
Please allow four days from the designated due date for your grade on discussion board posts and fourteen days on short writing assignments to appear in the Gradebook. You may consult the grading rubrics provided in this syllabus as well as the individualized feedback from your grader to help you improve on subsequent assignments. When you click on your grade for a discussion board assignment, you immediately have access to comments provided by the grader. Feedback for short writing assignments is available in the Turnitin program. See the course site under the writing assignment tabs for a tutorial on how to access those comments. Once your grade for an assignment is recorded in the gradebook, you have seven days from the recording date to email the TA and ask a question about the score you received.

**COURSE SCHEDULE**
*PLEASE NOTE: I reserve the right to modify this syllabus should it be deemed necessary. You will be notified of any changes via Announcements. Content in the weeks open up upon conclusion of the previous week.*

<table>
<thead>
<tr>
<th>Week One (January 12-20 Monday, January 19th Martin Luther King, Jr. Holiday)</th>
<th>Syllabus, Academic Integrity, Technology in a Historical Perspective, Theories of Technology and Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readings:</td>
<td>Syllabus, Academic Integrity powerpoint, Course Site, JG Introduction and Section I</td>
</tr>
<tr>
<td>Lecture:</td>
<td>Technology throughout History lecture</td>
</tr>
<tr>
<td>Video:</td>
<td>FMG video #43343 “Can we have unlimited power? A history of energy”</td>
</tr>
<tr>
<td>Assignments:</td>
<td>Syllabus and Academic Integrity Quiz due by Saturday, March 9th before 11:00pm</td>
</tr>
<tr>
<td>Readings:</td>
<td>JG Section II, “The social construction of facts and artefacts: or how the sociology of science and the sociology of technology might benefit each other” and “Why your car isn’t electric”</td>
</tr>
<tr>
<td>Lecture:</td>
<td>Theories lecture</td>
</tr>
<tr>
<td>Assignments:</td>
<td>Discussion Board #1 due by Tuesday, January 20th before 11:59pm</td>
</tr>
</tbody>
</table>

*Quiz #1 covering readings (except for “The social construction of facts and artefacts: or how the sociology of science and the sociology of technology might benefit each other” and “Why your car isn’t electric”), lectures, and video due by Tuesday, January 20th before 11:59pm*
### Week Two (January 21-27)
**Interpersonal Relationships**

**Readings:**
JG Section III, “Internet interpersonal relationships”, “Online communities: real or imagined” and “Exploring similarities and differences between online and offline friendships: The role of attachment style”

**Lecture:**
Interpersonal Relationships lecture

**Video:**
FMG video #41697 “Disconnected: A month without computers”

**Assignments:**
- Discussion Board #2 due by Tuesday, January 27th before 11:59pm
- Quiz #2 covering readings, lectures, and video due by Tuesday, January 27th before 11:59pm
- Short Writing Assignment #1 due by Tuesday, January 27th before 11:59pm

### Week Three (January 28-February 3)
**Technology and Work; Technology and Education**

**Readings:**
JG Sections IV and V, “Studying the impact of technology on work and jobs”

**Lectures:**
Technology and Education lecture; Technology and Work I and II lectures

**Assignments:**
- Discussion Board #3 due by Tuesday, February 3rd before 11:59pm
- Quiz #3 covering readings and lectures due by Tuesday, February 3rd before 11:59pm

### Week Four (February 4-10)
**Technology and Health**

**Readings:**
JG Section VI (except for “Is there sufficient scientific evidence to conclude that cell phones cause cancer”)

**Lectures:**
Technology and Health lecture

**Videos:**
FMG video #44665 “IVF: Medical ethics-real-world applications” and FMG video #30801 “Making better babies: Genetics and reproduction”

**Assignments:**
- Discussion Board #4 due by Tuesday, February 10th before 11:59pm
- Quiz #4 covering readings (except for “Is there sufficient scientific evidence to conclude that cell phones cause cancer”), lectures, and videos due by February 10th before 11:59pm
**Week Five (February 11-17)**

**Global and Political Issues**

**Readings:**
JG Section VIII (except for “Distorted Picture”, "Geek Life", "I Can't Think!", "Women in the Shadow of Climate Change", "Should the Internet be Neutral"), “Do artifacts have politics?”, “The politics of airplane production: The emergence of two technological frames in the competition between Boeing and Airbus”, and “Science, politics, and democratic participation in policy making: A Latin American view”

**Lectures:**
What are Values lecture and Technology and Globalization lecture

**Assignments:**
- Discussion Board #5 due by Tuesday, February 17th before 11:59pm
- Quiz #5 covering readings (except for “Distorted Picture”, "Geek Life", "I Can't Think!", "Women in the Shadow of Climate Change", "Should the Internet be Neutral"), and lectures due by Tuesday, February 17th before 11:59pm
- Short Writing Assignment #2 due by Tuesday, February 17th before 11:59pm

**Week Six (February 18-24)**

**War and Terrorism; Security and Surveillance**

**Readings:**
JG Section IX (except for "Does online communication compromise the rights of an individual when information is anonymous") and Section X (except for "DOD's energy challenge as strategic opportunity"), “Computer-mediated communication: Human-to-human communication across the internet” and select chapters in Surveillance and security: Technological politics and power in everyday life.

**Lectures:**
Technology and War lecture, Security and Surveillance lecture

**Assignments:**
- Discussion Board #6 due by Tuesday, February 24th before 11:59pm
- Quiz #6 covering readings (except for “Does online communication compromise the rights of an individual when information is anonymous" and "DOD's energy challenge as strategic opportunity") and lectures due by Tuesday, February 24th before 11:59pm

**Week Seven (February 25-March 3)**

**Technology and the Future**

**Readings:**
JG Section XI (except for "Should biotechnology be used to alter and enhance humans"), “Nanotechnology and the developing world” and “Nanotechnology and the developing world: Will nanotechnology overcome poverty or widen disparities?”

**Lecture:**
Future lecture
Video: FMG video #41693 “From micro to nano: The emergence of nanotechnology, FMG video #41704 “Upgrade me! Tech gadgets and society”

Assignments: Discussion Board #7 due by Tuesday, March 3rd before 11:59pm

Quiz #7 covering readings (except for “Should biotechnology be used to alter and enhance humans”), lecture, and videos due by Tuesday, March 3rd before 11:59pm
McGraw-Hill to Create Title Page
McGraw-Hill to Create Copyright Page
# Contents

## Introduction ........................................................................................................... viii

### I. Technology in a Historical Perspective ...................................................................... 1

- “In the Beginning was the Word” Christine Rosen .................................................. 3
- “Revolution in a Box” Charles Kenny ................................................................. 7
- “Automation on the Job” Brian Hayes ................................................................. 13
- “Generational Myth: Not All Young People Are Tech-Savvy” Siva Vaidhyanathan ........................................ 20
- “Small Change: Why the Revolution Will Not Be Tweeted” Malcolm Gladwell ........................................ 25

### II. Theories of Technology and Society ................................................................. 29

- “Five Things We Need to Know about Technological Change” Neil Postman .................. 31
- “Moore’s Law and Technological Determinism: Reflections on the History of Technology” Paul E. Ceruzzi ......................................................................................... 35
- “A Passion for Objects: How Science is Fueled by an Attachment to Things” Sherry Turkle ......................................................................................... 40
- “In Good Company? On the Threshold of Robotic Companions” Sherry Turkle .................. 43

### III. Interpersonal Relationships .................................................................................. 47

- “Is Pornography Adultery?” Ross Douthat .................................................................. 49
- “Is Google Making Us Stupid?” Nicholas Carr ......................................................... 55
- “The End of Solitude” William Deresiewicz ............................................................. 60
- “Relationships, Community, and Identity in the New Virtual Society” Arnold Brown ........................................ 64
- “Expressing My Inner Gnome: Appearance and Behavior in Virtual Worlds” Shyong (Tony) K. Lam and John Riedl ......................................................................................... 69
- “The End of Forgetting” Jeffrey Rosen ........................................................................ 73
- “How Google Dominates Us” James Gleick .................................................................. 82
- “Are Online Services Responsible for an Increase in Bullying and Harassment?” Yes – Penny A. Leisring; No – Amanda Lenhart ........................................ 88

### IV. Technology and Work ......................................................................................... 104

- “Women, Mathematics, and Computing” Paul De Palma ........................................ 105
“Overload! Journalism’s Battle for Relevance in an Age of Too Much Information”
Bree Nordenson ................................................................. 110

“How Deep Can You Probe?” Rita Zeidner ................................................................. 116

“Dilberts of the World, Unite!” David Sirota ................................................................. 120

“The Software Wars: Why You Can’t Understand Your Computer” Paul De Palma ........ 123

“Multitasking Youth” Andrew J. Rohm, Fareena Sultan, and Fleura Bardhi ...................... 130

“But Who’s Counting?” Jason Pontin ................................................................. 136

No – Stephanie C. Ardito ................................................................. 141

V. Technology and Education .......................................................................................... 165

“For Openers: How Technology Is Changing School” Curtis J. Bonk .................................. 166

“Digital Readers: The Next Chapter in E-Book Reading and Response” Lotta C. Larson .... 170

“Effects of Video-Game Ownership on Young Boys’ Academic and Behavioral Functioning:
A Randomized, Controlled Study” Robert Weis and Brittany C. Cerankosky ...................... 177

“Degrees, Distance, and Dollars” Marina Krakovsky .......................................................... 185

“It’s Not Easy to Stand up to Cyberbullies, but We Must” Robert M. O’Neil ...................... 188

“E-Mail in Academia: Expectations, Use, and Instructional Impact”
Meredith Weiss and Dana Hanson-Baldauf ........................................................................ 191

“Are People Better Informed in the Information Society?” Yes – Linda Jackson, Alexander von
Eye, Frank Biocca, Gretchen Barbatsis, Yong Zhao, and Hiram Fitzgerald; No – Mark Bauerlein ................................................................. 198

VI. Technology and Health .............................................................................................. 221

“The Case for Killing Granny” Evan Thomas Et al ................................................................ 222

“Personally Controlled Online Health Data – The Next Big Thing in Medical Care”
Robert Steinbrook, MD ........................................................................................................ 224

“Medical Tourism: What You Should Know” Lorene Burkhart and Lorna Gentry .............. 229

“Is Genetic Enhancement an Unacceptable Use of Technology?” Yes – Michael J. Sandel;
No – Howard Trachtman ........................................................................................................ 232

“Is There Sufficient Scientific Evidence to Conclude That Cell Phones Cause Cancer” Yes – Olga
V. Naidenko; No – Linda S. Erdreich .................................................................................. 245

VII. Technology and the Environment ............................................................................. 259

“How to Stop Climate Change: The Easy Way” Mark Lynas ................................................. 261
“High-Tech Trash: Will Your Discarded TV or Computer End up in a Ditch in Ghana?”
Chris Carroll .............................................................................................................................. 264

“Navigating the Energy Transition” Michael T. Klare ............................................................................................................. 268

“Countering Radiation Fears with Just the Facts” Denise Grady ............................................................................................................. 274

“Is It Time to Revive Nuclear Power” Yes – Allison MacFarlane; No – Kristin Shrader-Frechette .. 276

“Are Genetically Modified Foods Safe to Eat?” Yes – Henry I. Miller and Gregory Conko;
No – Jeffrey M. Smith .............................................................................................................................. 294

“Environmental Justice for All” Leyla Kokmen ......................................................................................................................... 313

“Do the Potential Benefits of Synthetic Biology Outweigh the Possible Risks” Yes – Gregory
E. Kaebnick; No – Christopher J. Preston .............................................................................................................................. 317

VIII. Global and Political Issues ......................................................................................................................... 332

“Distorted Picture” Sherry Ricchiardi .......................................................................................................................... 334

“Geek Life: Die Another Day” Susan Karlin ......................................................................................................................... 340

“Millennium Development Goals: At a Glance” ......................................................................................................................... 343

“I Can’t Think!” Sharon Begley ........................................................................................................................................ 347

“Women in the Shadow of Climate Change” Balgis Osman-Elasha ............................................................................................................. 350

“The Trouble with Twittering: Integrating Social Media into Mainstream News” Robert Jewitt ......................................................................................................................... 354

“The List: Look Who’s Censoring the Internet Now” Joshua Keating ......................................................................................................................... 358

“Should the Internet be Neutral?” Yes – Julius Genachowski; No – Kyle McSlarrow ......................................................................................................................... 360

“Google and Saving Face in China” Adam Segal ................................................................................................................. 380

“It’s A Flat World, After All” Thomas L. Friedman ......................................................................................................................... 382

“Why the World Isn’t Flat” Pankaj Ghemawat ......................................................................................................................... 387

“Is Social Media Becoming the Most Powerful Force in Global Politics?” Yes – Clay Shirky;
No – Evgeny Morozov ........................................................................................................................................ 390

IX. War and Terrorism ........................................................................................................................................ 404

“Is Your Food Contaminated? Mark Fischetti ......................................................................................................................... 406

“The Evolution of Cyber Warfare” Greg Bruno ......................................................................................................................... 411

“Networks, Netwar, and Information-Age Terrorism” John Arquilla, David Ronfeldt, and
Michele Zanini ........................................................................................................................................ 415

“www.terror.net: How Modern Terrorism Uses the Internet” Gabriel Weimann ......................................................................................... 439

“Public Diplomacy, New Media, and Counterterrorism” Philip Seib ......................................................................................... 454
“Does Online Communication Compromise the Rights of an Individual
When Information Is ‘Anonymous?’” Yes – Neil Swidey; No – Ian Lloyd .......................................................... 470

X. Security and Surveillance ................................................................................................................................. 488

“Untangling Attribution: Moving to Accountability in Cyberspace” Robert K. Knake .............................. 490
“Hacking the Lights Out” David M. Nicol ........................................................................................................ 497
“DOD’s Energy Challenge as Strategic Opportunity” Amory B. Lovins ....................................................... 502
“Do Government Internet Surveillance Efforts Threaten Privacy and Civil Rights?” Yes – James A. Lewis; No – Amitai Etzioni ................................................................. 511

XI. Technology and the Future ............................................................................................................................. 528

“Energy” in Nanotechnology Demystified Linda Williams and Dr. Wade Adams ........................................... 529
“From Here to There” in Nanotechnology Demystified Linda Williams and Dr. Wade Adams ...................... 548
“The Coming Superbrain” John Markoff ........................................................................................................ 575
“Biotech on the Farm: Realizing the Promise” Clifton E. Anderson ................................................................. 578
“A User’s Guide to the Century” Jeffrey D. Sachs ............................................................................................... 583
“Should Biotechnology Be Used to Alter and Enhance Humans? Yes – President’s Council on Bioethics; No – Michael J. Sandel ................................................................. 588
Credits


Introduction

Technology plays a significant role in our everyday lives. Individually, we use technological inventions to clothe, feed, and shelter us; we use technology to keep us warm and cool, transport us from our homes to work, to various countries and cities around the world; we can even visit a new country via our computers and the Internet without ever leaving our home. We use technologies to stay connected to our communities and for entertainment. Undeniably, technology is embedded in our everyday lives, defining who we are and how we see the world.

Yet, technologies are more than specific inventions influencing individual identity and behavior. Technological innovation, development, and application are embedded in our social systems; which is why we must consider the social relationships, social practices, norms, and values of a society. Technology and society are intertwined composing a complex relationship that spans history to our future.

The purpose of creating this book is to enlighten the reader on the many ways technology is built into our individual lives and social systems. The composition and arrangement of the sections demonstrate a variety of relevant issues that illustrate our relationship with technology. Certainly, the topics covered in this book are by no means exhaustive, as the relationship between technology and society encompasses much more than can be captured in one book. However, the compiled readings were deliberately chosen to elucidate how technology is embedded in our relationships with work, health, politics, education, interpersonal relationships, environment, warfare, security, and our future; topics, we believe are representative of an interdisciplinary focus designed specifically for students who take our Technology and Society courses. This book invites students and other readers to critically examine the issues set forth here, but also to extrapolate learned knowledge into other areas shaping our technological lives as well.