

# HSTA 482: History of American Technology

Montana State University  
Fall 2012

**Your Guide:** Tim LeCain, Wilson 2-108

**Office Hours:** Tuesdays and Thursdays, 1:30-2:30 or by appointment

**Office Phone:** 994-7585

**E-mail:** tlecain@montana.edu (generally the best way to reach me)

**Lectures:** Tuesdays and Thursdays, 3:05-4:30 in Wilson 1121

**Course Description:** Rather than a simple chronological history of technology in the United States, this course will introduce a number of different themes and questions about how humans create and, perhaps, are created by technology. What is technology? How is it related to the natural environment? Is technology inherently unnatural, or can there be natural technologies? How have Americans historically viewed the role and desirability of new technologies in their society? How do new technologies affect questions of freedom, democracy, and security? Has American history been driven by changing technologies, or do the technologies simply reflect changes in the society? Can a technology in itself be political? Has technology by and large been a force for progress in the society, or do the costs associated with some new technologies outweigh the benefits? How have American fears and hopes for new technologies been reflected in popular culture products like films?

**Course Requirements:** This class will require that you do the following:

**1) Class Participation and Attendance (10%):**

- I believe one of the most important parts of a college education is the chance to participate in open intellectual debate and to sharpen your thinking and speaking skills. This is one of the key traits that distinguishes a good college education from four boring years simply regurgitating a mass of factoids. Hence, a considerable amount of class time will be devoted to what I hope will be lively and interesting discussions of the ideas and themes raised in the books and movies. Your task will be to thoroughly and thoughtfully read the assigned materials and offer your observations about them through class participation.
- Attendance at all class meetings is mandatory. **If you miss more than four classes without a legitimate reason you will not receive credit for the course, and a lesser number of unexcused absences may still significantly decrease your final grade.** If you know you will have to miss class for a compelling reason, please let me know beforehand if at all possible, ideally via e-mail. Attendance will not be taken everyday, but will be assessed through your participation in the reading quizzes, your presence or absence when handing back work, and other similar means.
- I realize that some people, for a variety of reasons, simply feel they cannot participate in class discussions, even though they have done all the reading

and have a great deal to say. If you are such a person, I still strongly encourage you to try and participate; *now* is the time to begin getting beyond this limitation which will otherwise likely hinder you throughout your life. Failing that, though, please see me at some point early in the course (if you wait until the last month, it will be too late to have much of an effect) to discuss some alternative means so that you will get fair credit for this part of the course. In recognition that listening to others debate is still better than nothing, if you do not participate in discussion but attend class regularly, you will still receive at least “C” (70%) for your participation score.

**2) Reading Quizzes (10%):** I will give a number of short quizzes, some surprise others announced. These exams will be on either the specific reading assigned for that day, or if pre-announced, may also cover entire books or sections of reading. The quizzes will not demand a deeply *detailed* command of the material in order to do well. I will not ask you to recall arcane details and specifics. Rather, if you have carefully read the material, taken some good notes, and basically *adequately prepared to participate in any discussion of the material*, you should do fine. To that end, any notes you have taken on the readings can be used during the quizzes, though not the books or articles themselves.

**3) Midterm Exam (20%):** The midterm will be a combination of essay questions and short identifications. I will provide you with a study guide for the exam approximately a week before.

**4) Final Exam (30%):** The final will consist of two or three essay questions and a selection of short IDs that will require you to draw on material from the entire course.

**5) Essays:** You will be required to write two, 3-4 double-spaced pages, analytical essays for the course. These are *not* to be research essays and they do not require you to do additional reading; rather, in these essays you will be required to draw explicitly, concretely and thoughtfully on the books, lectures, and films offered in this course. My goal is for you to master the material offered in this course, not to rely on material you are already familiar with or to conduct outside research. **Failure to adequately deal with the course material will result in the essay’s automatic rejection.** You will be expected to develop a fairly high level of fluency with all the books and other class material so that you will be able to make connections between, be aware of, and effectively use all the course material that is relevant to your essay topic. Given this, it is essential that you keep up with the readings and take good notes in lectures; if you postpone your reading until the essays are due, it will be very difficult, if not impossible, for you to gain the necessary fluency in the material. I will hand out further guidelines during the course. Be sure and see me if you are having difficulty coming up with an original topic—preferably well before the essay due date when my advice can be most helpful!

- **All essays must be submitted electronically through the course website on the MSU Desire2Learn site.**

- **Late essays will be marked down by 5 points (out of 100 possible) for each day they are turned in to the D2L class website past the due date.**

I will grade your essays using these criteria:

*The A Paper*

- Rich content - original ideas, clear thesis with excellent detail and evidence reflecting mastery of all appropriate course material, including readings and lectures
- Reflects serious and sustained engagement with course ideas
- Careful organization and development of ideas
- Stylistic finesse - clear and interesting opening and closing, artful transitions between paragraphs
- Varied sentence structure, precise diction and tone, no unnecessary verbiage
- Mastery of grammar and mechanics, no typos or misspellings

*The B Paper lacks some of the above qualities but still has:*

- Substantial and accurate course information
- Specific ideas logically ordered, well-developed and unified around a clear organizing thesis
- Interesting and connected opening and closing, generally smooth transitions between paragraphs
- Varied sentence structure, concise diction
- Few grammatical and mechanical errors

*The C Paper lacks many of the above qualities and may demonstrate:*

- Basic knowledge of at least some course material
- Competent but predictable thesis and information that verges on being merely a “report,” has many vague generalities
- Uses frequent and lengthy direct quotes from material rather than paraphrasing
- Adequate organization but minimal development
- Superficial and perfunctory opening and closing, bumpy transitions between paragraphs
- Monotonous or choppy sentences, imprecise and wordy sentences, redundancies
- Some mechanical and grammatical errors
- Ideas lacking in originality, imagination, or sustained engagement with material

*The D & F Papers is seriously lacking in all of the above and may:*

- Reflect little or no knowledge of the course material, makes serious errors of fact and interpretation, fails to make obvious connections to appropriate material from course
- No clear thesis or argument, a “report” rather than an analytical essay
- Only rudimentary treatment and development of subject
- Unclear or ineffective organization
- Weak or absent introductions, conclusions or transitions
- Awkward or ambiguous sentences

- Frequent mechanical or grammatical errors
- An overall impression of superficiality, haste, or lack of understanding

**Readings:** The required books are available at the MSU bookstore for purchase:

- David F. Noble, *The Religion of Technology* (978-0140279160)
- Tom Standage, *The Victorian Internet* (978-0802716040)
- Eric Schlosser, *Fast Food Nation* (978-0060938451)
- Timothy LeCain, *Mass Destruction* (978-0813545295)
- Edmund Russell, *Evolutionary History* (978-0521745093)
- Elizabeth Kolbert, *Field Notes from a Catastrophe* (978-1596911307)

Please keep in mind that the books have been chosen in part to spark discussion about often controversial topics in the history of technology. Read everything in the course with a critical eye, as none of this material necessarily provides the final word on any subject, much less a straight conduit to that chimerical goal of historical “Truth.” You are encouraged to take a position on the reading material (and the lecture material, for that matter) and, after careful thought, to criticize or support the authors’ various positions. However, it is *not* an option to simply dismiss an argument without having first understood the authors’ points and evaluated their evidence. If you want to challenge an argument you must first of all demonstrate you have understood it.

**Videos:** As you will see from the syllabus, we will be watching several films, or at least parts of these films. You should take good notes on any films we watch and be aware that they are designed as spurs for discussion about course themes. You will be expected to pay close attention to this visual material and be able to analyze and use it in papers, quizzes, and exams.

***Nota bene:*** All of the listed course requirements (with the exception of the short quizzes) must be completed to receive course credit. Failing to turn in one of the essays, for example, will result in a failing grade even if your overall numerical average is passing.

**A Few Words on Plagiarism, Cheating, etc.:** All students are expected to abide by the university conduct guidelines which I encourage you to read on the web at:

[http://www2.montana.edu/policy/student\\_conduct/](http://www2.montana.edu/policy/student_conduct/)

Always bear in mind that any work submitted for this class—whether it be essays or test responses—must be written in your own words and give appropriate acknowledgement to the source of any views or ideas that are not uniquely your own.

- Collaboration between students in preparing for exams, discussing essay topics, etc., is encouraged. However, be sure that any exam answer or essay that emerges from these collaborations is uniquely your own. Even if written in your own words, an essay or exam response that uses an argument and supporting evidence that is identical or very similar to another student’s work might still be plagiaristic. Remember that avoiding plagiarism is basically about being

intellectually honest: so long as you can truthfully say that what you have written reflects your own intellectual efforts and conclusions conveyed in your own words, you are on safe ground. Troubles generally arise when students try to avoid doing their own work by presenting the intellectual efforts of others as if it was their own.

**Grading Scale:** Please note that all course requirements (essays, tests, and recitation, discussions, etc.) must be fulfilled in order to receive a nominally passing grade (a “D” or above) although bear in mind that history majors much earn a “C” or above for the course to count towards their major. All your grades during the course will be done numerically on a 100-point scale with the following letter grade equivalencies:

93-100: A  
90-92.9: A-  
87-89.9: B+  
83-86.9: B  
80-82.9: B-  
etc.

**The Course Website:** The syllabus, study guides, and all other material distributed to the class will be available for downloading at the course website on the MSU Desire2Learn site. I will post other material there as well and send out periodic announcements. The two essays must be submitted in the D2L Dropbox. Your username and password are the same as those you use for MyPortal. The D2L site is at: <https://ecat.montana.edu/>

## **Schedule of Readings, Lectures, Exams, etc.:**

(Note that you are expected to have  
*completed* the readings and assignments by the  
day they are assigned)

### **Week One:**

**August 28: Introduction to the course**

**August 30: What is Technology Anyway?**

- Smith and Clancy, Preface and Chapter 1 (Available on D2L)
- **Quiz One:** For this class, please print a copy of a *relatively* recent photo of yourself (even an old photo from your freshman year is all right), such as a snapshot, the photo on your school ID, drivers license etc. Position the photo so that is in the upper left hand corner of an 8.5 x 11 page. Try to get a reasonably clear image. If you copy your ID, black out any personal information you don't wish me to see. Be sure that somewhere on the page your name appears clearly, and if you have a nickname or diminutive you prefer to go by in class, please indicate it. Also, indicate what your current major is, any relevant areas of expertise in technology (say, you are a genetic engineering student or Star Trek expert), and any particular topics or questions you would like to see addressed in the class. **This assignment will be your first quiz; if you turn it in today or next Tuesday, you will receive a 100%, but only 25% thereafter. But if you want ANY credit for discussion, you must turn in this copy at some point. Otherwise, I am forced to assume you don't care if you receive that 10% of your grade.**

### **Week Two: Technology and Transcendence**

**Sept. 4:** Noble, *The Religion of Technology*, pp. 3-56

**Sept. 6:** Noble, *The Religion of Technology*, pp. 57-100

### **Week Three: Early American Technological Debates: Farmers or Factories**

**Sept. 11:** Smith and Clancy, *Major Problems*, Chapter 4 (on D2L)

**Sept. 13:** Smith and Clancy, *Major Problems*, Chapter 5 (on D2L); Film: *Metropolis*

### **Week Four: Annihilating Space and Time: Railroads and Telegraphs**

**Sept. 18:** Standage, Preface and Chapters 1-3

**Sept. 20:** Standage, Chapters 4-6

### **Week Five: Annihilating Space and Time: Railroads and Telegraphs**

**Sept. 25:** Standage, Chapters 7-9

**Sept. 27:** Standage, 10-12, Epilogue and Afterword

### **Week Six: Mass Production, Consumption, and Destruction**

**Oct. 2:** LeCain, Chapters 1-2; Smith and Clancy, Chapter 9 (D2L)

**Oct. 4:** LeCain, Chapters 3-4; Film: *Modern Times*

- **ESSAY ONE DUE IN D2L DROPBOX BEFORE MIDNIGHT**

**Week Seven: Mass Production, Consumption, and Destruction**

**Oct. 9:** LeCain, Chapter 5 and Epilogue

**Oct. 11: MIDTERM EXAM**

**Week Eight: The American Leviathan**

**Oct. 16:** Noble, pp. 103-142

**Oct. 18:** Noble, pp. 142-208; Film: *2001*

**Week Nine: Technology, Evolution, and History**

**Oct. 23:** Russell, Chapters 1-4

**Oct. 25:** Russell, Chapter 5-7

**Week Ten: Technology, Evolution, and History**

**Oct. 30:** Russell, Chapters 8-10

**Nov. 1:** Russell, Chapters 11-12

**Week Eleven: The Technology and Nature of Food**

**Nov. 6: NO CLASS-Election Day;** Schlosser, Intro and Chapters 1-2

**Nov. 8:** Schlosser, Chapters 3-4

**Week Twelve: The Technology and Nature of Food**

**Nov. 13:** Schlosser, Chapters 5-6

**Nov. 15:** Schlosser, Chapters 7-8

**Week Thirteen: The Technology and Nature of Food**

**Nov. 20:** Schlosser, Chapters 9-10

**Nov. 22: NO CLASS-Thanksgiving Break;** Schlosser, Epilogue and Afterword

**Week Fourteen: Life out of Balance?**

**Nov. 27:** Colbert, Preface and Chapters 1-3

**Nov. 29:** Colbert, Chapters 4-5

- **ESSAY TWO DUE IN D2L DROPBOX BEFORE MIDNIGHT**

**Week Fifteen: Life out of Balance?**

**Dec. 4:** Colbert, Chapters 6-7 ; Film: *Koyaanisqatsi*

**Dec. 6:** Colbert, Chapters 8-10 and Afterword

**Week Sixteen: FINAL EXAM**

- **Your final exam will on Wednesday, December 12<sup>th</sup>, 12-1:50 in our regular class room. Please remember to bring your blue books!**