History of Technology

4 Credits
CRN 17003
Tuesday, Thursday 2-3:20 pm
185 Lillis
Prof. Vera Keller
vkeller@uoregon.edu
Office: 309 McKenzie Hall
Office Hours: Monday, 10-12

Format: Mixed Lecture and Discussion

Outline of Subject and Topics: This course aims to provide an introduction to the field of Science, Technology and Society (STS). It encourages critical engagement with the idea of technology and its relationship to society. Part One of the course delves into the historical meaning of the term technology, and introduces ideas and topics basic to the history of technology such as technology and gender, technology and politics, sociotechnical imaginaries, co-production, technological determinism, and technology and capitalism. Part Two explores these themes via a series of case studies: the production of potassium nitrate (the main ingredient of gunpowder), artificial intelligence, corporate structure and the pharmaceutical industry, information technology and biotechnology. Part Three analyzes sociotechnical imaginaries through the discussion of excerpts of primary sources of science fiction, which we will relate back to readings in Parts One and Two of the course.

Course materials: All course materials will be posted to the course Canvas site.

Expectations for students: Students are expected to do the assigned readings and assignments, to attend class, and to come to class prepared to engage. Absences are excused only with a doctor's note. Engagement can take the form of 1) volunteering to answer a question posed by the professor, 2) raising one's own helpful question or constructive criticism to class, or 3) bringing up in class the idea of another student (with appropriate credit), from, for example, one of their blog posts. Students are expected to be respectful of everyone in the room. No electronic devices in class unless medically necessary. Late work receives a reduction of 10% per day.

Assessment:
Attendance: 18%
Engagement: 10%
Blog Posts: 32%
Midterm 20%
Final: 20%

Blog posts are due on the Canvas Site by 10 am of the class day. Unless otherwise specified, the blog post takes the following format in Parts One and Two of the course: Each post is worth two points. One point will be given for an original point or question. As repetitions of previous comments by
others will not receive full credit, it is in your interest to post early. Blog posts should offer fodder for discussion drawn from the reading, but should not be merely questions of fact (such as, “what is potassium nitrate?”), which students are encouraged to research on their own. The second point will be given for a constructive response to a previous student’s post. Please remember to be respectful. The first student to post for the day gets this point for free.

**Grading Rubric:**

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<thead>
<tr>
<th>Grade</th>
<th>Minimum Score</th>
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<tbody>
<tr>
<td>A +</td>
<td>98 and up</td>
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<tr>
<td>A</td>
<td>94-97</td>
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<tr>
<td>A -</td>
<td>90-93</td>
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<td>B +</td>
<td>86-89</td>
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<td>B</td>
<td>83-85</td>
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<td>B -</td>
<td>80-82</td>
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<tr>
<td>C +</td>
<td>77-79</td>
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<tr>
<td>C</td>
<td>73-76</td>
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</tbody>
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**Learning Outcomes:** I hope that this course will develop your ability to read and analyze primary and secondary sources, to think critically about a complex topic, and to engage in a respectful and constructive discussion even when dealing with potentially controversial materials. What are your desired learning outcomes? List three.

1)  

2)  

3)  

*The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 155 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu*

**Readings:**

Part I: Theoretical Issues

9/25: What is Technology?


**Assignment:** For your blog post this week, post a screenshot of an ad from one of the following and discuss whether there is a particular gendered aspect to it.

https://www.popularmechanics.com

https://spectrum.ieee.org
Co-Production

Technology and Politics
Read pages 121-128.

Read these four pages:
http://graphicwitness.org/contemp/marx46.htm
http://graphicwitness.org/contemp/marx47.htm
http://graphicwitness.org/contemp/marx48.htm
http://graphicwitness.org/contemp/marx49.htm

Part II: Case Studies

Case Study: Potassium Nitrate

Case Study: Calculating Machines, Mechanical Invention, and Artificial Intelligence

Midterm

Case Study: Warfare, Pharmaceutical Industry, and Corporate Structure

Case Study: Biotechnology

Case Study: Genetic Modification

Case Study: Information Technology and Hacker Culture
Part III: Technological Imaginaries
For your blog posts for Part III of the course, relate each reading back to one reading in Part 1 or Part II of the course, as well as responding to another student.

11/13 Francis Bacon: *New Atlantis*, extract TBA.
11/15 Mary Shelley, *Frankenstein*, extract TBA
11/20 H.G. Wells, *The Island of Dr. Moreau*, extract TBA
11/22: No class. Happy Thanksgiving!
   We will screen it on the evening of 11/26, for anyone who wishes to watch it together.
11/29 Final Discussion and exam review session.