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Office Hours:
Tuesdays, 4:00-5:30
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Science, Technology and War

Tuesdays 6:00-9:00
Location: ENG 201
Rutgers University – Newark

Course Description: This course will examine the politics of science and technology with a particular focus on violence and war. In it, we will be inquiring into the relationship between science and technology, and war and violence. By moving beyond the view that technology is either ‘good’ or ‘bad’ we will open up new questions focused on the ways in which both technology and war are generative – that is to say, that war generates the invention and production of new forms of science and technology, and at the same time science and technology produce new forms of warfare and violence both within states and between states. In the course we will study various forms of science and technology, including weapons, robotics/drones, biometrics, ‘big data’, medicine, neuroscience, psychology, artificial intelligence, amongst others. We will also examine how these sciences and technologies are generated by, and generate various forms of violence and responses to them, including policing (both within the US and in warfare), counterinsurgence, counter-terrorism, border control and surveillance.

Welcome to class!

Assessment:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due Date</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiz</td>
<td>March 24 (in class)</td>
<td>15%</td>
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<tr>
<td>Reading Response Papers (2)</td>
<td>At the beginning of class in the week of the readings covered in the assignment, until March 31</td>
<td>20% (2 @ 10% each)</td>
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<tr>
<td>Essay</td>
<td>April 11 (for peer review) + May 4 (final essay - for assessment)</td>
<td>35%</td>
</tr>
<tr>
<td>Peer Reviews (2)</td>
<td>April 21</td>
<td>20% (2 @ 10% each)</td>
</tr>
<tr>
<td>Attendance &amp; Participation</td>
<td>Weekly, throughout the course</td>
<td>10%</td>
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Assignments:

1. A Quiz worth 15%. The quiz will test your completion of the readings. There are no make-up quizzes, except in exceptional circumstances.

2. Students will complete TWO Reading Response Papers throughout the course, each worth 10% (for a total of 20%). Each Response Paper should be approximately 700 words. Response Papers must be submitted at the beginning of class during the week in which we discuss those readings. You are encouraged to incorporate the ‘Additional Resource’ for your week. No late assignments will be accepted. Late assignments will be given a grade of 0. Reading Responses must be submitted by the March 31 class. This assignment is designed to position you as an expert during the class, and ensure that you do not get behind in your work.

3. A major essay (35%) which will be based on the two reading response papers, but will also expand their findings. The purpose of this assignment is three-fold: First, it is designed to teach students to take existing writing and re-visit and develop it. Secondly, it is intended to give students the opportunity to incorporate feedback from their Reading Responses into their essays – i.e. giving students an opportunity to ‘act’ on the feedback provided on their Reading Responses. Third, it is designed to teach students to think hard about the connections between two apparently distinct topics (i.e. the topic of your first Reading Response paper, and the topic of your second Reading Response paper). Your resulting paper may, in the end, bear little resemblance to your original papers: indeed, the idea is to revise your previous writing in order to rework it into a more fully developed form, and to move from the form of reading response to an essay. Your essay must also take account of the readings listed under ‘Additional Resources’ in the course outline. Students will have the opportunity to revise their essays based on a peer-review from a fellow student.

***The essay will be submitted twice: the first time on April 11 (for peer review) and the second time (for assessment by the Instructors) on May 4. No late assignments will be accepted: failure to submit your paper on either of these dates will result in a grade of 0.

4. Two Peer Reviews (20%), in which feedback is provided to another student in the class on their essay. The Professor will lead students in a workshop on how to write effective peer reviews. Peer reviews will be conducted in the manner of professional academic journals (i.e. they will be double-blind), and students will provide reviews of two of their fellow students’ papers. Note that these peer reviews are time-sensitive because your fellow students will need your feedback in order to incorporate it into their essays. As such, NO LATE ASSIGNMENTS WILL BE ACCEPTED and failure to submit your peer reviews on time will result in a grade of 0.

5. Attendance and Participation are worth 10% of your final grade. Participation grades are awarded on the basis of: 1. Attendance; 2. Coming to class prepared with your readings done, and engaging in the class in ways that demonstrate your careful reading of the assigned texts; 3. Collegiality: showing respect for your fellow students even when you might disagree, and actively working to make sure that everyone in the course has an opportunity to be heard – i.e. encouraging the participation of others.
**Fairness Policy:** In this course we will adhere to a policy of fairness: students are expected to submit their assignments on time, and to extend exceptions to some students is unfair to those who submitted their assignments on time. Additionally, the assignments in this class are time-sensitive: that is, they will proceed through various stages (i.e. peer review, revising), so if you hand in an assignment late, you are not only affecting your own progress in the course, but also that of your fellow students. In order to ensure that the class is fair and functional, no late assignments will be accepted.

In the case that you face exceptional circumstances such as a major illness, accident, or death of a family member, please contact the professor as soon as possible and we will find a way to make the course work in the face of such exceptional circumstances.

Fairness is a two-way street, and so students can expect the following from the Instructors: that we will keep regular office hours, and be available by appointment if your schedule conflicts with set office hours, that classes will be run in an orderly and productive way, that we will respond to your emails within 3 days (and that you are encouraged to follow-up if you have not received a response), that the Blackboard site will be kept up-to-date, and that apart from the final essay (which takes longer to grade) you will always get your assignments back within a week of having submitted them if you submit them on time.

Additionally, for students who are having difficulties with time-management or facing other challenges, your instructors are available in office hours or by appointment – we can work together to create a plan, or refer you to appropriate services on campus.

When addressing you, the Instructors are happy to use whatever name and gender designation you wish (even if it is not officially listed on the class roster).

Note: Readings will be posted on Blackboard. There is no textbook for this course. **Please bring your readings to class (in either electronic form or hardcopy).**

- Students with disabilities who require accommodation should work with the [Office of Disability Services](973-353-5300). Also please let me know whether you require any accommodation, and we can work together with the Office of Disability Services to ensure your needs are met.

- Students should also be aware of the services of [The Writing Centre](The%20Writing%20Centre). The Writing Center offers writing tutoring and writing workshops to all undergraduate students currently enrolled in classes.

- All students are required to be familiar with, and adhere to, the University’s Academic Integrity Policy (see the University’s [Academic Integrity site](http://Academic%20Integrity%20site)). Students who commit plagiarism will be reported to the Academic Integrity Facilitator, and may be subject to sanction. It is your responsibility to be fully familiar with the University’s policy on academic integrity.
Learning Objectives:

- To promote critical understanding of the connections between science, technology, war and violence
- To develop conceptual tools with which to understand grounded case studies
- Improvement of writing skills
- Improvement of proofreading and editing skills
- Working cooperatively and peer-review skills
- To develop time-management skills
- To fosters students’ understanding of themselves as producers (not just passive recipients) of knowledge, and to give students an opportunity to think about disseminating their work, and potentially publish examples of their writing (i.e. for potential job interviews or other opportunities)
- To professionalize students and foster forward-thinking in preparation for their future careers

SCHEDULE

Jan 21: Introduction to the Politics of Science and Technology

Jan 28: The Politics of Science, Technology & War – Conceptual Frameworks


Ruha Benjamin, “From park bench to lab bench - What kind of future are we designing?” Tedx Baltimore, 2015. (video, 21mins)

Additional Resources:


The Council on Foreign Relations’ Iraq War Timeline and the Afghanistan War Timeline.

Feb 4: Technology and the Militarization of Policing

American Civil Liberties Union (ACLU), “War Comes Home: The Excessive Militarization of American Policing.” ***Note: read only pages 12-40.***

Additional Resource:

Feb 11: War, Race and Surveillance I: Biometrics within Borders (Afghanistan)


Additional Resource:

Feb 18: War, Race and Surveillance II: Biometrics at Borders


Additional Resource:

Feb 25: Universities in War, Universities at War: Scientific Knowledge and Warfare
Hugh Gusterson, “The University at War” The Costs of War Project, 2011.


Additional Resource:
Mar 3: Drone Warfare and Robotics


Additional Resource:

Mar 10: Neuroscience & Psychology in War

The Royal Society (UK), Brain Waves 3 – Neuroscience, Conflict and Security. February 2012. ***Read only pages 5-15, 26-7, and 60-63.***

Browse the website of the Coalition for an Ethical Psychology: http://www.ethicalpsychology.org/

Additional Resources:

Students may also wish to browse the DARPA website for examples of military neuroscientific research, or the Department of Defense’s science blog: Armed With Science.

Mar 17: No class (Spring Recess)

Mar 24: War and Medicine

**QUIZ**


Centers for Disease Control and Prevention (CDC), The Tuskegee Timeline.

Additional Resource:
Mar 31: Health and the Materiality of Technology: The case of E-Waste

**Last chance to submit a Reading Response Paper**


Additional Resource (choose one or both):


OR


April 7: No class – Independent Writing week: *Use this time to write your Essays!*

*** Saturday April 11th: Essays due on Blackboard *** NO LATE ESSAYS ACCEPTED!!

April 14: Workshop on Peer Reviewing

In this workshop students will be learn about how to write an effective peer review – what to avoid, how to frame a peer review, and how to provide constructive feedback on work you are reviewing. The workshop will give students insights not only into basic techniques concerning how to review the work of their peers, but more generally what it means to give constructive feedback. The workshop will take place in preparation for the student peer review assignment, in which you will provide a double-blind review of two of your fellow students’ papers.

April 21: Workshop on Revising Written Work

*** Peer Reviews Due ***

This class will be dedicated to our second workshop intended to teach students skills that are useful both in their academic careers, and in their future career paths. In this class we will explore what it means to re-visit and revise a text repeatedly in order to best communicate our ideas, analysis and research findings. Students will be instructed in what it takes to produce a good piece of writing – the repeated process of feedback (when available) and above all, revision: including both substantive editing and proofreading.
April 28: Big Data and Cyberwarfare: The case of Cambridge Analytica

During this class we will close out the semester by watching an Oscar-nominated documentary The Great Hack. In preparation for this class, students should browse the Guardian newspaper ‘Cambridge Analytica Files’ special series of articles, available at:

https://www.theguardian.com/news/series/cambridge-analytica-files

Additionally, this class will offer students an opportunity to speak with the Instructor about your final essay if you have any questions or need further guidance.

*** Final version of the essay is due on: May 4th on Blackboard ***