ANTHROPOLOGY 3379G/9126B

ENGINEERING OURSELVES: The Anthropology of Cyborgs

COURSE OUTLINE
Winter 2024

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Instructor:

Dr. Jay Stock

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Course information:

This is a blended course consisting of lectures, online videos, and discussions. Lectures and discussions will take place in class time each week but with variable lengths of time devoted to each. In combination with online video content the total time for lectures, videos, and discussion teach week should not exceed 3 hours.

0.5 credit.

Antirequisites: None.

Prerequisites: Completion of first year, including at least one course in Social Science, Science, or Health Sciences. Recommended but not required: Anthropology 2226A/B, 2237A/B or 2240A/B.

Course Description:

Humans have been indirectly and directly biohacking ourselves for millennia. We are all, as Donna Harraway writes "chimeras, theorized and fabricated hybrids of machine and organism: in short, we are all cyborgs". This course considers the evidence for human 'self-engineering' throughout human evolution, the archaeological record, and today. Throughout the course we will incorporate broad comparative perspectives on cultural influences on human anatomy, physiology, genetics, and the history, ethical, and social context of conscious human self-modification. The course begins by considering cybernetics and cyborgs and the evolutionary and archaeological evidence for human self-domestication, and self-engineering. We then consider historic perspectives, such as social Darwinism and eugenics, as a warning of how poor understandings of science and biological processes can be misapplied as ideas 'self-directed evolution'. Within this framework, we consider changes in science through the 20th century that include the 'ascent of information', and the contrast between predictions of cyborg dystopias and techno-optimism. In the second half of the course we consider contemporary issues in human self-modification, including the rise of biomedicine and chemical biohacking, genetic modification and synthetic biology, replacement organs and body parts, neural hacking and 'cyborg minds', artificial intelligence, aging and immortality, and the future of human-technology interactions, such as technosymbiosis or the 'singularity'.

Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Evaluate the relationship between technology and human biological and social systems
- Discuss terms, definitions, and controversies relating to the themes of human adaptation and culture, technology, bodily augmentation and modification
- Analyze readings competently and critically
- conduct thought experiments into the ethical implications of technology
- Work collaboratively with a group of peers to develop shared understandings of class readings and course themes

Course Materials:

There is no textbook for this course. Readings, videos, and other material will be compiled and made available in OWL for each relevant week under the 'Weekly material' tab.

Undergraduate Grading and Evaluation:

Undergraduate student evaluation for this course will be based on participation, two annotated bibliography assignments, one 3000-word research paper and a final exam. Work will be spread throughout the term. Details below.

Annotated Bibliographies – 20%

The two short, annotated readings assignments will require students to find two references that are relevant to topics in this course. The first annotated bibliography will be on the topic of past or existing technologies and their social or biological consequences of two aspects of human technology, which will most often be unintended. The second annotated bibliography will be on the topic of the current and future technologies and intention, where the aim will be to find and describe two papers that deal with the intentional modification of our biology and consider the potential social and/or biological consequences. The references should come from academic sources (e.g. a book chapter or peer-reviewed journal article). The assignment is to write a short synopsis of the references and in your own words, to link them to the broader themes of this course relating to evolution, adaptability, or ethics. The first one is due on February 9th (with sliding submission until Feb 16th) and the second one on March 8th (with sliding submission until March 15th). They are to be submitted electronically and are due by 11:55 pm. Either Annotated bibliography may be on a topic you're considering for your final research paper. More information can be found in the Annotated Bibs tab on OWL.

Research Paper or Alternate assignment – 35%

You are expected to submit one significant work of independent research for this course, which will most commonly be in the form of a research essay with a maximum length of 2000 words. Topics for the research paper must be related to the broad themes of the course, the relationship between technology and human biology or social change. Your specific topic should be chosen in consultation with the instructor (in office hours, during class, or by email) before reading week. You may consider alternative essays such as videos or other forms of creative expression (to be approved by the instructor), as long as they are accompanied by written work explaining the concept and theory behind your work. The paper will be formatted as a manuscript to be submitted to the *American Journal of Physical Anthropology*. See the PDF in the Research Paper tab on OWL for specific instructions and further details.

The paper is due on March 29th with a sliding window of submission until April 5th. Papers are to be submitted to OWL by 11:55pm. *Students must submit and receive a passing grade on this paper in order to pass this course.*

Participation/Attendance – 20%

Students will be expected to actively engage synchronously and asynchronously in this course. Each week you will post/share A Discussion Question (DQ) to the online forum before class. These will help to structure group discussions in class. Your group will prepare a brief 'reflection' on the discussion which summarizes key points of your discussion. The group 'reflection' may be posted in class or shortly afterwards.

Final Exam – 25%

The final exam will be an online exam that evaluates key concepts in the course, and allows you to reflect on broader issues. It will be scheduled during the designated final exam period.

Graduate Grading:

Graduate Annotated Bibliographies – 30%

The two short, annotated readings assignments will require students to find five references that are relevant to topics in this course. The first annotated bibliography will be on the topic of 'Consquences' – the aim will be to find and describe two papers that illustrate the social or biological consequences of two aspects of human technology. The second annotated bibliography will be on the topic of 'Intention' where the aim will be to find and describe two papers that deal with the intentional modification of our biology and consider the potential social and/or biological consequences. The references should come from academic sources (e.g. a book chapter or peer-reviewed journal article). The assignment is to write a short synopsis of the references and in your own words, to link them to the broader themes of this course relating to evolution, adaptability, or ethics. The first one is due on February 9th (with sliding submission until Feb 16th) and the second one on March 8th (with sliding submission until March 15th). They are to be submitted electronically and are due by 11:55 pm. More information can be found in the Annotated Bibs tab on OWL.

Graduate Research Paper – 50%

The graduate students will prepare a 4000-word research paper on a bioarchaeological topic that is relevant to their thesis research and is different from the topic covered in the annotated bibliography/presentation. Due date to be determined.

Graduate Participation – 20%

Students will be expected to actively engage synchronously and asynchronously in this course. Each week you will post/share A Discussion Question (DQ) to the online forum before class. These will help to structure group discussions in class. Your group will prepare a brief 'reflection' on the discussion which summarizes key points of your discussion. The group 'reflection' may be posted in class or shortly afterwards.

Course and Institutional Statements and Policies

Statement on Plagiarism and Use of AI:

In this course we are exploring themes of the impact of technology on our species. Artificial intelligence is one such technology that is currently changing our lives. Students must write their assignments in their own words, but you will be able to use Artificial Intelligence within your assignments as long as: a) you are clear where, when, and how you have used it; b) it does not make up more than 20% of the written words that you submit; and c) you incorporate critique and reflection upon the process and results of the use of AI that is well integrated into the central argument of your essay. Using AI, or any other source of information without acknowledgement is considered plagiarism. **Plagiarism is a major scholastic offence.** All assignments will be evaluated using TurnItIn in the Assignments portal (video/audio submissions must include a transcript). **All assignments are required to have a TurnItIn score below 15%. Assignments with higher than a 15% score will be returned ungraded**

Course Specific Conditions Required to Pass this Course

In order to pass an essay course, the student must exhibit a level of competence in essay writing and the appropriate level of knowledge of the content of the course. *In order to pass this course, students must submit and receive a passing grade on this research paper*.

Accommodation, Illness Reporting and Academic Considerations

You may pursue academic consideration for deadlines as documented in the University's Academic Consideration policy. However, if you are in communication with Dr. Stock before the extended submission windows close, he may grant an extension without your needing to go through a formal process. Note that for final assignments at the end of term this may not be possible.

Accessible Education

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. More information can be found on the Accessible Education site, as well as the accommodation policy in the Academic Calendar.

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar.

Western's Academic Policies

All students should familiarize themselves with Western's current academic policies regarding accessibility, plagiarism and scholastic offences, and medical accommodation. These policies are outlined in Western's academic policies by clicking on this link: Western's academic policies.

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