Special Studies Course
Education 98/198
Overview

UC and the BOMB

The University of California and the Military-Industrial-Nuclear Weapons Complex: Past, Present and Future

Important information

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Overview

This student-facilitated course—***The University of California and the Military-Industrial-Nuclear Weapons Complex: Past, Present and Future***—will examine the role of the University of California in the development and production of nuclear weapons of mass destruction from the period of the Manhattan project through the Cold War to the current era of US global political and economic dominance. We will examine the interlocking framework that connects the University of California to the military-industrial complex, most salient in the UC's management of the nation's two large nuclear weapons laboratories in Livermore, CA and Los Alamos, NM. We will also investigate more subtle linkages between science, the military and institutions of higher education in the US. We will draw parallels between the economic and foreign policy agendas of the US as a global superpower and the roles of educational institutions, scientists and engineers, and the development and stockpiling of nuclear arsenals. We will look at ethics in scientific decision-making, and how power structures influence scientists and the use of scientific knowledge. We will also examine the environmental/ecological and public health effects of nuclear weapons science, development and production.

Key learning outcomes

Many UC students are unaware that our University is intimately connected with the nuclear weapons complex, and that every nuclear weapon in the US arsenal was designed by a UC employee. The first-order aim of this student-facilitated course is to increase the consciousness of the student body about these issues. Students will become familiar with the history of the weapons labs and related articles of international law that govern nuclear proliferation. Students will learn the basics of how nuclear weapons work, what countries are known to possess nuclear weapons and the size of their arsenals, and about current policies and efforts towards US and international disarmament.

In the next two years the UC Regents will decide whether and how much to bid to maintain the University's contract with the weapons labs at Livermore and Los Alamos. This student-facilitated course will examine the Regents as the governing body of the UC, and will review arguments for and against the Regents' continued role as managers of the Labs. Students will get to know who the Regents are, how they are appointed, what interests they represent, and what effective role(s) they have in the oversight of activities at the Labs.

A segment of the course will be dedicated to the philosophy and ethics of scientific decision-making. Students will become familiar with neo-liberal economics and corporate globalization, and how these constructs interact with higher education institutions and the military-industrial complex. Students will

gain insight into technocratic culture, and how educational and scientific institutions are influenced by political and economic power.

The course will also examine the environmental/ecological and public health concerns associated with nuclear weapons and science. Students will discuss the environmental and medical consequences of nuclear war, as well as gender-, class-, and race-based issues of justice around nuclear science.

Methods of instruction

Class format…
The class format will have three facets: lecture-style presentation by the course facilitators, interactive discussion/group project work, and presentation with question-and-answer from guest presenters.

The class will meet for a maximum of two hours, once a week. One-third of class time will be reserved for lecture-style presentations, either by the course facilitators or a guest presenter. Presentations will make use of multi-media formats including Power Point and video/DVD. One-third of the class will be devoted to question-and-answer time and large group discussion. The last third will be a time for small group discussion and group project work.

Requirements…
Attendance is mandatory, with a maximum of three absences (DeCal policy). Students will be expected to keep up with the reading list as outlined in the course syllabus (maximum of 1 –2 readings per week). Students will submit weekly short (less than 1 page) reflections on the readings.

A large part of student participation in the course will be through small group project work (3 – 6 students per group). Examples of group projects include: creating an alternative employment guide for science and engineering students; researching Department of Energy funding appropriations for the National Labs; organizing an educational event, public forum or debate on campus regarding UC and nuclear weapons issues. Students are also encouraged to design their own group projects according to their background and interests.

Guest presenters…
Expert guest presenters including UC faculty, local activists, Lab employees, religious leaders, NGO representatives, county and state health officials, and US and international law specialists will be invited to give presentations on relevant topics including: the mission of the Labs and international law; the history of social movements addressing nuclearism and militarism; the perspectives of the UC Regents; UC faculty involvement in weapons science and the role of ethics in science; public health concerns and whistleblower retaliation around Livermore Lab; medical consequences of nuclear war; faith-based initiatives in anti-nuclear activism; and the role of class/gender/race in nuclear issues.

Field trip…
The course will include a field trip to Livermore to visit Tri-Valley Citizens Against Radioactive Environments (TVC), a community watchdog group that monitors Lawrence Livermore National Lab, and to visit the Lab itself for a tour of their facilities (reading room, visitors center, etc.).

Course materials…
Students are required to purchase the following two texts in addition to a course reader:

Gusterson, Hugh. Nuclear Rites: A weapons laboratory at the end of the Cold War
Caldicott, Helen. The New Nuclear Danger: George W. Bush's Military-Industrial Complex

Abbreviated syllabus

The course will proceed as a series of 15 lectures broken down into four units:

Unit I ***Competing Histories of the Bomb: the US Nuclear Complex and the Anti-nuclear Movement***
(Lectures 1 – 4: January 26, February 2, February 9, February 16)

Unit II ***The University of California and Nuclear Weapons***
(Lectures 5 - 8: February 23, March 2, March 9, March 16)

Unit III ***Ethics in Scientific Decision Making***
(Lectures 9 – 12: March 30, April 6, April 13, April 20)

Unit IV ***Nuclear Weapons, Our Environment and Our Health***
(Lectures 13 – 15: April 27, May 4, May 11)

Unit I will include a primer on the international history of nuclear weapons and anti-nuclear social movements. We'll look at key pieces of international legislation regarding nuclear proliferation. And we'll discuss social movements that have grown up around protests of nuclear science and resistance to testing of nuclear bombs at the Nevada Test Site. Unit I provides the social and political context in which the struggle over UC's management of the Labs is situated.

Unit II will examine the history of UC involvement in nuclear weapons development and testing. We'll look at the University's governing body—the UC Regents—and discuss their role in the UC-weapons labs connection. We'll discuss pro and con arguments regarding UC's managerial relationship to the labs, and investigate the historical controversy around this relationship.

Unit III will examine the philosophical basis for postmodern science, and elaborate some of the ethical dilemmas of performing science work in the military-industrial-academic complex. We'll question commonly held assumptions about the political neutrality of science. We'll investigate the roles of warfare and war-related technology in neo-liberal capitalist political economies. We'll examine case studies of disagreement between different groups of scientific experts.

Unit IV will look at the environmental and medical consequences of nuclear conflict and nuclear weapons research, testing and production. We'll examine the weapons labs' record of responsibility for ecological and public health harm. We'll consider current options for nuclear waste containment and storage, as well as environmental justice issues around nuclear waste. We'll study the precautionary principle as a decision making tool.