

Environmental Studies/History 335
Nuclear America
Spring 2017

TTH, 9:40-11:10, Clow 103

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Course Description: After the first successful nuclear test in 1945, Robert J. Oppenheimer—the father of the atomic bomb—reportedly quoted Indian scripture: “Now I am become Death, the destroyer of worlds.” Thus began America’s long and strange interaction with nuclear energy. In this research and reading seminar, we will explore this interaction by examining topics such as foreign policy and the arms race, civil defense planning, nuclear energy, the peace movement, the environmental movement, climate change, and many more. But in confronting nuclear energy, Americans thought and reflected on much more than just the power of the atom. They have wrestled with elemental questions such as the human relationship to nature, the nature of progress, the obligations of citizenship, and the balance between national security and democracy. Exploring nuclear energy will allow us to investigate these larger themes in American history.

The course will be run as a reading seminar. There will be very little lecture. Class time will be spent discussing and analyzing the readings. A majority of the readings will be primary sources—that is, the documents written or created as Americans encountered nuclear energy. These include, for example, press releases from the White House, letters and speeches written by government officials and nuclear industry representatives, promotional materials for anti-nuclear rallies, and much more. A central goal of the course is to learn how to critically analyze these documents, and then to use them in creating your own original arguments about American encounters with nuclear energy.

This class will also contribute to your liberal arts education. A liberal arts education focuses on general learning, intellectual ability, and critical thinking rather than technical or professional skills. The goal of this class is not just to convey specific information about American encounters with nuclear energy (although you will learn much about this) but to teach you how to interpret this information critically, and how to understand modern environmental issues in their social, historical, and political contexts.

Learning Outcomes: Upon completing this course, students will be able to:

- 1.) Have a basic understanding of the subject matter—the complicated ways that Americans encountered nuclear energy, from 1945 to the present.
- 2.) Effectively communicate complicated ideas in a classroom setting, primarily through class discussion.
- 3.) Critically analyze primary source documents, and use those documents to create original arguments that explain American encounters with nuclear energy from diverse perspectives.
- 4.) Effectively communicate complicated ideas about environmental history in written format.

Attendance & Participation: Your participation in discussions and other class activities is required. Come to class prepared to discuss the readings. Your attendance is essential to the success of the course, and your grade will begin to drop if you miss more than two classes. There will be no opportunity to make up short assignments or missed classes. If you have more than five unexcused absences, you will fail the course. An “unexcused absence” is any absence for which you cannot provide a note from a doctor, another professor, or some other documented explanation. If you simply cannot make a class, please contact me before the class meets.

Readings: There are two required books, both available at the University Book Store and on reserve at Polk Library:

- Martin V. Melosi, *Atomic Age America* (Boston: Pearson, 2013).
- James W. Feldman, *Nuclear Reactions: Documenting American Encounters with Nuclear Energy* (Seattle: University of Washington, 2016).

Many course readings will be available electronically on the course D2L page. These are REQUIRED readings; you are strongly urged bring them with you to class (in print or on a laptop, iPad, or e-reader) so that you make use them to aid in class discussion.

Course Policies and Conduct: All of us must do our best to be intellectually honest and tolerant of personal differences. Environmental topics are often controversial, and we all have our own beliefs. I hope that everyone will feel safe to express an idea, even if that idea is not a popular one. There are some university guidelines for behavior that I expect all of us to abide by as well. One of these has to do with plagiarism, or taking credit for the work of others. This is a serious offense and will be treated according to university guidelines; failure of the course is a potential outcome of academic dishonesty. This doesn't mean you shouldn't talk with other students about what you are thinking or writing; but when you write something on a paper or exam, it must be in your own words, not copied from someone else. We will discuss what plagiarism means more fully during the course of the semester. If you have any questions about academic honesty, and what might or might not be considered plagiarism, please ask, rather than taking a risk with grave consequences.

Knowing and applying the names and pronouns that students wish to use is a crucial part of developing a productive learning environment that fosters inclusion and personal dignity. Please let me know your preferred name and pronoun anytime before or throughout the semester.

Please let me know what I can do to accommodate any disabilities that you might have.

Grading Breakdown and Course Requirements: Students will be evaluated on the following components, each of which will be discussed in more detail during class:

• Attendance & Participation: 20%	• First paper: 15%
• Reading Responses, Quizzes & Short Assignments: 10%	• Movie review/presentation: 10%
• Midterm: 20%	• Final Paper: 25%

Grading Scale

A 93-100	B+ 87-89	C+ 77-79	D+ 67-69	F 59 and below
A- 90-92	B 83-86	C 73-76	D 63-66	
	B- 80-82	C- 70-72	D- 60-62	

Course Calendar

Wk 1: Tuesday, January 31 – Introduction & Course Themes

Thursday, February 2– First Reactions

Reading: Melosi, *Atomic Age America* (AAA), 1-4.

Feldman, *Nuclear Reactions*, xiii-44

Reading Response (1-2 pgs.): Drawing from at least 3 readings, construct an argument that explains initial reactions to the nuclear bomb. What were people most worried about? What most impressed or surprised them? Underline your thesis statement.

Wk 2: Tuesday, February 7 – Atomic Science: Guest Lecture with Dr. Kevin Crawford, Dept. of Chemistry

Reading: Tuniz, *Radioactivity*, D2L

Thursday, February 9 – The Bomb and Its Consequences

Reading: Melosi, AAA, 28-84

Movie reviews: “The Day the Earth Stood Still”; “Atomic City”

Wk 3: Tuesday, February 14 – The Nuclear Arms Race and the Start of the Cold War

Readings: Melosi, AAA, 85-117

Nuclear Reactions, 45-64

Reading Response (1-2 pgs.): In what ways did American Cold War rhetoric, American economic development, and nuclear technologies relate to each other in the early years of the Cold War? Be sure to refer to specific readings.

Thursday, February 16 – Invincibility, Vulnerability, and Civil Defense

Reading: Melosi, AAA, 118-46

Nuclear Reactions, 65-69 (FCDA), 93-95 (BPR)

Movie review: “Them!”

Wk 4: Tuesday, February 21 – Civil Defense and American Society

Reading: Jacobs, *By the Dragon’s Tail*, D2L

May, “Civil Defense and the Post-World War II Cult of Domesticity,” D2L

Nuclear Reactions, 69-73 (FCDA), 111-114 (AEC)

ACE, “Civil Defense and Higher Education,” D2L

Reading response (1-2 pgs.): What larger conclusions about American society can be drawn from analyzing the documents about Civil Defense? Be sure to refer to specific readings and underline your thesis statement.

Thursday, February 23 – Atoms for Peace

Reading: Melosi, AAA, 153-81 (skim 167-72)

Nuclear Reactions, 74-100, 118-22 (AEC)

Movie review: “Incredible Shrinking Man”

Wk 5: Tuesday, February 28 – The Promise of Nuclear Power

Reading: Winkler, “The Chimera of Nuclear Power,” D2L

Nuclear Reactions, 107-110 (Revelle), 128-31 (Teller) and 149-151 (AEC)

Movie review: “The Day the Earth Caught Fire”

Post: Discussion question response to D2L discussion board

Thursday, March 2 – First Paper Due: No Reading

Wk 6: Tuesday, March 7 – The Peace Movement Reacts to Nuclear Weapons

Reading: Henriksen, “The Bomb Shelter Scare and America’s Moral Reawakening,” D2L

Nuclear Reactions, 101-106 (Russell/Einstein), 114-17 (SANE), 140-43 (Mead)

Post: Discussion question response to D2L discussion board

Movie review: “Seven Days in May”

Wednesday, March 8: Movie Night: *On the Beach*, 7:00 pm, Sage 1210 (you must attend 1 of 2 movie nights & write a response)

Thursday, March 9 – Women Strike for Peace

Reading: Swerdlow, “Ladies’ Day at the Capitol,” D2L

Nuclear Reactions, 144-148 (WSP)

HUAC Hearings, D2L

Movie review: “Fail/Safe”

Wk 7: Tuesday, March 14 – Fallout

Reading: *Nuclear Reactions*, 123-27 (Commoner), 132-33 (Fallout Maps), 211-14 (Gregerson),

Higuchi, “Atmospheric Nuclear Weapons Testing”

Post: Discussion question response to D2L discussion board

Movie review: “Dr. Strangelove”

Thursday, March 16 – Life Under a Cloud

Reading: Fox, *Downwind*, D2L

RECA Navajo Testimony, D2L

SPRING BREAK

Wk 8: Tuesday, March 28 – The Cuban Missile Crisis and the Test Ban

Reading: Melosi, AAA, 182-221

Nuclear Reactions, 134-40 (Kahn & Mitchell), 152-62

Thursday, March 30 – MIDTERM

Wk 9: Tuesday, April 4 – Environmentalism & the Atom

Reading: Lutts, “Chemical Fallout: Rachel Carson's Silent Spring, Radioactive Fallout, and the Environmental Movement,” D2L

Nuclear Reactions, 163-187

Reading Response (1-2 pgs): Building on Lutts’s points, use the primary sources in *Nuclear Reactions* to craft an argument about the relationship between the anti-nuclear movement and the environmental movement.

Wednesday, April 5: Movie Night: *China Syndrome*, 7:00 pm, Sage 1210 (you must attend 1 of 2 movie nights & write a response)

Thursday, April 6 – The Anti-Nuclear Movement

Reading: Melosi, AAA, 222-251

Nuclear Reactions, 196-97 (Rifas), 200-206 (Caldicott, AA)

Wk 10: Tuesday, April 11 – Détente and Nuclear Ebb in the 1970s

Reading: Boyer, “From the Test Ban Treaty to Three Mile Island,” *Fallout*, ER

Nuclear Reactions, 188-95 (CPD)

Movie reviews: “Colossus: The Forbin Project” and “Genesis II”

Thursday, April 13 – Radioactive Waste, Three Mile Island, and the Nuclear Future

Reading: *Nuclear Reactions*, 192-95 (Deuster), 198-99 (Merrill), 207-10 (TMI Report), 215-20 (Lilienthal)

Reading response (1-2 pgs.): Pulling from this week’s readings, construct an argument that explains how and why American ideas about nuclear weapons and nuclear energy shifted and evolved in the 1970s. Underline your thesis statement.

Wk 11: Tuesday, April 18 – Nuclear Power in the 1980s

Reading: Melosi, AAA, 258-283

Nuclear Reactions, 225-29 (NWPA), 246-50 (OTA), 259-63 (Macias)

Movie review: “Silkwood”

Wednesday, April 19: REQUIRED film: “Containment” screening and discussion; Reeve Union Theatre, 6:00-7:30

Thursday, April 20 – Ronald Reagan and the Renewal of the Cold War 2

Reading: Melosi, AAA, 290-302

Nuclear Reactions, 221-24 (Reagan), 230-45 (Schell, Reagan, Sagan), 251-54 (Campaign)

Movie review: “The Day After”

Reading response (1-2 pgs.): Pulling from this week’s readings, construct an argument that examines the similarities or differences between the nuclear rhetoric of the 1980s and that of the 1950s and 1960s. Refer to at least 3 documents, and underline your thesis statement.

Wk 12: Tuesday, April 25 – The End of the Cold War

Reading: Melosi, AAA, 303-317

Nuclear Reactions, 251-58 (Lown), 263-70 (Reagan, *Bulletin*)

Post: Discussion question response to D2L discussion board

Thursday, April 27 – New Nuclear Threats

Reading: Melosi, AAA, 325-47, 357-59

Nuclear Reactions, 271-87

Wk 13: Tuesday, May 2 – New Atomic Nature

Reading: Wills, “Welcome to the Atomic Park,” D2L

“Chernobyl: A Field Trip to No Man’s Land,” including embedded videos,

<http://www.bbc.co.uk/nature/14250489>

“Cameras Reveal the Secret Lives of Chernobyl’s Wildlife,”

<http://www.bbc.com/news/science-environment-32452085>

Movie review: “Dawn’s Early Light”

Thursday, May 4 – Nuclear Energy and Climate Change

Reading: Parson, “Climate First?,” D2L

Hecht, “Nuclear Nomads,” D2L

Nuclear Reactions, 288-310

Reading Response (1-2 pgs.): Drawing loosely from the readings of the past 2 weeks, make an argument about what you see as the role of nuclear energy (weapons and power generation) in the world today.

Wk 14: Tuesday, May 9 – Pondering the Nuclear Future

Thursday, May 11 – No Class; **Final Papers due in D2L Dropbox**