

## History 500: Nuclear America

Fall 2024

3 credits

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Tuesdays, 3:15-5:15, 5257 Mosse Humanities Building

Prof. Jim Feldman

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Office hours: Thursdays 1:30-3:30 (or by appointment)

in 5214 Mosse Humanities Building

**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 complex 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.) Place modern debates about nuclear energy in their historical context.
- 5.) Effectively communicate complicated historical ideas in written format.

**Bulletin Description of History 500:** Advanced exploration of selected topics, featuring small group discussion and intensive engagement with historical materials. Topics vary.

**Requisites:** History 201 or junior standing

**Credit Hours and Workload:** The credit standard for this 3-credit course is met by an expectation of a total of 135 hours of student engagement with the course’s learning activities (at least 45 hours per credit or 9 hours per week), which include regularly scheduled meeting times, reading, writing, individual consultations with the instructor, and other student work as described in the syllabus. The expectation is that you will work at least 2 hours outside of the class for every hour in the classroom.

**Attendance, Discussion and Participation:** Your participation in discussions and other class activities is essential. This class will be run in seminar format, meaning there will be very little lecture. We have a small group—everyone’s active participation and engagement will be necessary for the course to be a success. Come to class each day prepared to discuss the assigned reading. There will be a variety of short assignments, usually due before the start of class, throughout the semester. These will count, along with your attendance and participation in class discussions, toward 35% of your grade. Attendance will be taken every class meeting; your grade will begin to drop with each absence after the first one. I understand that life happens and circumstances might force you miss additional classes. Please communicate in writing with me, preferably 48 hours in advance, to see what accommodations can be made. Exceptions are made for absences documented by a health care professional, athletics, or the Dean of Students, and for religious observance.

**Attendance Self-Grading:** Keep track of your attendance, contributions to class discussions, and your engagement with the course. At the end of the semester, you will be asked to give yourself a self-assessment and grade for your attendance and participation (15% of your total grade); a rubric will be provided. As long as this grade tracks with my general assessment of your participation, this will be your grade for this component of the course. I know that different people participate and engage in different ways, and this system is one way of accounting for that.

**Reading Responses:** Prior to each class meeting, I will ask you to respond to the week’s readings in writing. This might take the form of short paper, posts to the Canvas Discussion board, or some other assignment. These short assignments are graded on a full credit/half-credit/zero credit basis, and they will make up 20% of your grade. These assignments are not meant to take much time—you should not feel the need to take these to the History Lab or the Writing Center. These short assignments are meant to help you think through the material before class and to provide a platform for practicing key historical skills such as thesis-writing, document analysis, and the use of evidence. You may skip two reading responses over the course of the semester (except the ones specified on the syllabus that everyone must complete). These responses are typically due to the Canvas Dropbox before the start of class. There will be no opportunity to make up short assignments.

**Readings:** The amount of reading fluctuates from week to week. Sometimes you are asked to read close to 200 pages of a single source. Keep your eye on the syllabus so that you can tell when the heavier reading loads are coming. The following book is available at the University Book Store and on reserve at the library:

- James W. Feldman, *Nuclear Reactions: Documenting American Encounters with Nuclear Energy* (Seattle: University of Washington, 2016).

All other readings will be available electronically on Canvas. The readings listed in the syllabus are required. 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.

The book *Atomic Age America*, by Martin Melosi, is available electronically and on hold at Helen C. White. It is a useful resource that discusses American encounters with nuclear energy in a comprehensive textbook; if you are struggling to understand how specific subjects that we are discussing fit into the broader sweep of American history, or if you would like some additional background material, this is a good place to start.

**Canvas & Communication:** The course Canvas page is the best way to find readings, discussion questions, assignments, and to keep up with any changes to the course calendar. Email is the best way to get in touch with me. Sometimes, I will send Canvas announcements regarding the coming week’s class. Please check Canvas sometime on Monday afternoon for updates and last-minute information about the upcoming class meetings.

**Devices/Technology in Class:** We all use devices. But critical and analytical thinking take a hit once screens are out. You are welcome to use a laptop or tablet in this class as long as it contributes to your learning. However, even when devices like laptops are used for typed notetaking, studies show they invite rote transcribing versus mental processing or thinking (Mueller and Oppenheimer, 2014). This leads to poorer

academic performance. Other research demonstrates that when students engage in off-task behavior on their devices, it hurts the learning of the peers sitting near them. In one study, students who were not using a device in a class lecture but were seated within view of a peer with a device, performed 17 percent worse on an exam based on that lecture material than students who were not within view of someone else's device (Lang, 2020). **I encourage you to turn off your internet connection—and absolutely turn off your ringers and notifications—during class.** Please put away earbuds/earphones at the start of class.

So: Consider hand-writing your notes on readings and in class for potentially more efficient, deeper, real-time learning. At the very least, recognize that devices will detract from your own ability to participate in this discussion-driven class, and also might distract your peers.

**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. Diversity drives innovation, creativity, and progress. At UW Madison, the culture, identities, life experiences, unique abilities, and talents of every individual contribute to the foundation of our success. Creating and maintaining an inclusive and equitable environment is of paramount importance to us. This pursuit prepares all of us to be global citizens who will contribute to the betterment of the world. We are committed to a university culture that provides everyone with the opportunity to thrive. 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 us know your preferred name and pronoun any time before or throughout the semester.

**Academic Misconduct:** There are some university guidelines for behavior that I expect all of us to follow. 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, it must be in your own words, not copied from someone else. If you repeat someone else's words, you must use quotation marks and must cite the relevant author, work, and page numbers. If you closely paraphrase other writers or rely on their ideas, you must similarly acknowledge your debt with an appropriate citation. Appropriation of another author's work without citation—whether or not you use direct quotations—always constitutes plagiarism. Some clear guidelines are available at [http://writing.wisc.edu/Handbook/QPA\\_plagiarism.html](http://writing.wisc.edu/Handbook/QPA_plagiarism.html). You are responsible for knowing what constitutes plagiarism; claiming ignorance will not help you after the fact. 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.

**A Note about AI/ChatGPT/Copilot:** Generative AI technologies are becoming widespread and have the potential to enhance learning experiences and promote critical thinking in this course. However, it is important to note that the use of AI should be supplementary and should not replace the development of essential cognitive skills. Generative AI is like Wikipedia - a potential place to start, but you, as the author, are responsible for ensuring that the information and outputs are appropriate and original—that is, YOUR ideas. Often, ChatGPT and similar sites are wrong in their interpretations of a text. And they often repeat racialized and gendered biases that are widespread online. Know that work created by AI tools may not be considered original work and instead is considered automated plagiarism. Remember that most of the writing assignments in this course are based on YOUR OWN reflections and interpretations of readings, so there is no right answer. Do not rely on generative AI to do the thinking for you. I want to know what YOU think, not read a word salad created by ChatGPT. If you use an AI tool at any point in the development and/or creation of your work for this course – including discussion board posts, exams, and reading responses, or to improve grammar/syntax – provide a citation that lists the tool you used, the query/prompt that you used, and the date. Submitting written work that comes from generative AI without this citation will be regarded as academic misconduct—because it is work produced by someone other than you. Please ask questions if you are not sure about any of this.

Although it is not prohibited, **I urge you not to use Generative AI on the writing responses.** These responses are pass/fail and generously graded. Their purpose is to help you process the material and to be ready to engage with the material in class. The only person who loses out when you use generative AI for these assignments is you.

**Accommodations:** The University of Wisconsin–Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12) and UW–Madison policy (UW-855) require the university to provide reasonable accommodations to students with disabilities to access and participate in its academic programs and educational services. Faculty and students share responsibility in the accommodation process. Students are expected to inform faculty of their need for instructional accommodations during the beginning of the semester, or as soon as possible after being approved for accommodations. Faculty will work either directly with the student or in coordination with the McBurney Disability Resource Center to provide reasonable instructional and course-related accommodations. Disability information, including instructional accommodations as part of a student’s educational record, is confidential and protected under FERPA.

**Papers:** There will be three essays in the course, as indicated in the course calendar below. More information will be provided for each assignment well in advance of the due date.

**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: 15%	• Movie review/presentation: 10%
• Reading Responses, Quizzes & Short Assignments: 20%	• Final Paper: 25%
• Two midsemester essays: 15% each	

We will follow the standard university grading scale:

A = 92.5+; AB = 87.5-92.4; B = 82.5-87.4; BC = 77.5-82.4; C = 70-77.4; D = 60-69.4

**Course Calendar (subject to change, but clear notification will be provided if changes are made)**

**Wk 1:** Tuesday, January 21 – Introduction & Course Themes

**Wk 2:** Tuesday, January 28 – First Reactions

Reading: *Nuclear Reactions*, xiii-48

Boyer, “The Bomb as Harbinger,” (Canvas)

**Reading Response (2 pgs.); everyone must complete:** Drawing from and explicitly quoting at least 4 readings & documents, construct an argument that explains initial reactions to the atom bomb. What were people most worried about? What most impressed or surprised them?

Underline your thesis statement.

**Wk 3:** Tuesday, February 4 – The Nuclear Arms Race and its Legacies

Readings: *Nuclear Reactions*, 49-64

McNeill & Engelke, *The Great Acceleration*, Canvas

Räsänen, “Keep it Secret,” Canvas

**Post:** Discussion question responses to Canvas discussion board

Movie Review: “Them!” or “The Day the Earth Stood Still”

**Wk 4:** Tuesday, February 11 – Invincibility, Vulnerability, and Civil Defense

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

May, “Explosive Issues: Sex, Women, and the Bomb” Canvas

*Nuclear Reactions*, 65-58 (FCDA), 93-95 (BPR), 111-114 (AEC)

ACE, “Civil Defense and Higher Education,” Canvas

**Reading resp. (1-2 pgs.):** What larger conclusions about American society can you draw from analyzing the Civil Defense documents? Refer to specific readings and underline your thesis.

Movie Review: “The Day the Earth Caught Fire”

**Wk 5:** Tuesday, February 18 – Atoms for Peace and the Promise of Nuclear Power

Reading: *Nuclear Reactions*, 74-100, 107-110 (Revelle), 118-22 (AEC), 128-31 (Teller), and 149-151 (AEC)

Kirsch, *Proving Grounds*, Canvas

Melosi, *Atomic Age America*, Canvas

**Post:** Discussion question responses to Canvas discussion board

Movie review: “Incredible Shrinking Man”

**Friday, February 21: First Paper Due by 5:00 pm in the Canvas Dropbox**

**Wk 6:** Tuesday, February 25 – Fallout & the Cuban Missile Crisis

Reading: *Nuclear Reactions*, 123-27 (Commoner), 132-40, 152-62

Robey, *Atomic Americans*, “The Fallout from Fallout,” Canvas

Melosi, *Atomic Age America*, Canvas (skim for background on Cuban Missile Crisis)

**Reading Response (2 pages):** How did different stakeholders evaluate fallout? Identify at least four different stakeholders from the readings and write a brief paragraph about each discussing their perspective on fallout and/or the Cuban Missile Crisis. Provide at least 1 from the readings that helps explain the perspectives of each stakeholder that you have identified (that is, at least 1 quote per stakeholder).

Movie review: “On the Beach”

**Wk 7:** Tuesday, March 4: The Peace Movement Reacts to Nuclear Weapons

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

Swerdlow, “Ladies’ Day at the Capitol,” Canvas

*Nuclear Reactions*, 101-106 (R/E), 114-17 (SANE), 140-148 (Mead, WSP)

HUAC Hearings, Canvas

**Post:** Discussion question responses to Canvas discussion board

Movie review: “Panic in Year Zero”

**Wk 8:** Tuesday, March 11 – Scientists, Experts, and People

Reading: Fox, *Downwind*, Canvas

Peyton, “Kentucky’s ‘Atomic Graveyard,’” Canvas

RECA Testimony, Canvas

*Nuclear Reactions*, 211-14 (Gregerson)

**Reading Response:** Identify at least two themes that you see running through the readings, and identify at least 2 quotes from each reading that align with these themes.

Movie review: “Dr. Strangelove”

**Wk 9:** Tuesday, March 18 – Environmentalism, the Atom, and the Anti-Nuclear Movement

Reading: Hamblin, *Arming Mother Nature*, Canvas

Lutts, “Chemical Fallout: Rachel Carson’s Silent Spring, Radioactive Fallout, and the Environmental Movement,” (read the parts on Rachel Carson, skim the parts on fallout, On the Beach and the Shelter Scare), Canvas

*Nuclear Reactions*, 163-187, 196-97 (Rifas), 200-206 (Caldicott, AA)

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

**March 24-28 Spring Break**

**Wk 10:** Tuesday, April 1st – Radioactive Waste, Three Mile Island, and the Nuclear Future

Reading: *Nuclear Reactions*, 183-95 (Gould, CPD, Deuster), 198-99 (Merrill), 207-10 (TMI Report), 215-20 (Lilienthal)

Boyer, “From the Test Ban Treaty to Three Mile Island,” *Fallout*, Canvas

**Post:** Discussion question responses to Canvas discussion board

Movie review: “The China Syndrome”

**Wk 11:** Tuesday, April 8 – **Paper Due;** Debating Nuclear Power in the 1970s

No Reading; in-class debate activity

**Wk 12:** Tuesday, April 15 – Ronald Reagan, the Renewal of the Cold War & Nuclear Power in the 1980s

Reading: *Nuclear Reactions*, 215-54, 259-63

Knoblauch, *Nuclear Freeze in a Cold War*, Canvas

Movie review: “The Day After” or “Silkwood”

**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 4 documents, and underline your thesis statement.

**Wk 13:** Tuesday, April 22 – The End of the Cold War & New Atomic Natures

Reading: *Nuclear Reactions*, 251-58 (Lown), 263-87

Hamblin, “Fukushima and the Motifs of Nuclear History,” Canvas

Mikoluszko, “The Chernobyl Disaster Created an Unexpected Predator Paradise,”

<https://www.atlasobscura.com/articles/chernobyl-animals-belarus-wildlife> (and Canvas)

Freedman, “Repurposing Rocky Flats,”

[http://www.earthisland.org/journal/index.php/eij/article/repurposing\\_rocky\\_flats/](http://www.earthisland.org/journal/index.php/eij/article/repurposing_rocky_flats/)

Schlegel, “Unspoiled nature in the shadow of a nuclear site,”

<http://www.nytimes.com/2009/09/04/travel/escapes/04Amer.html>

**Post:** Discussion question responses to Canvas discussion board

**Wk 14:** Tuesday, April 29 Pondering the Nuclear Future: Nuclear Energy and Climate Change

Reading: Parson, “Climate First?” Canvas

Hecht, “Nuclear Nomads,” Canvas

*Nuclear Reactions*, 288-310

**Reading Response (1-2 pgs.) Everyone must complete:** Drawing loosely from the readings, make an argument about the role of nuclear energy (weapons and power generation) in the world today.

**Wk 15:** Tuesday, May 6, 11:59 PM – **Final Paper Due CHECK DATE OF FINAL**

<b>1 1/21</b>	In class read hecht Nuclearity	<b>9 3/18</b>	Envism and the atom, and anti-nuclear movement
<b>2 1/28</b>	First reactions; the bomb; reading response xiii-44; melosi 1-6; a few other pages from Melosi	<b>3/25 SPRING BREAK</b>	
<b>3 2/4</b>	Start of the cold war; first movie NR 45-97; plus something else 1--Movie: them or day the earth stood still	<b>10 4/1</b>	Waste, TMI and the Nuclear Future 7 China Syndrome

<b>4 2/11</b>	Invincibility, Vulnerability, and CD Wk 4 readings; Jacobs, May, NR 2—day the earth caught fire	<b>11 4/8</b>	Could have paper due and then spend entire day on debate, letting them prep; Debating Nuclear Power in the 1970s
<b>5 2/18</b>	Atoms for Peace and domestic power NR, Winkler 3--Incredible shrinking man First paper due on friday	<b>12 4/15</b>	1980s—domestic and international 8 silkwood or day after
<b>6 2/25</b>	Fallout and cmc 4—On the Beach	<b>13 4/22</b>	End of the Cold War/New atomic nature
<b>7 3/4</b>	Peace movement and WSP 5--Panic in Year Zero	<b>14 4/29</b>	Nuclear energy and climate change; reading response
<b>8 3/11</b>	Life under a cloud; something else 6—Dr Strangelove		