

# ATOMIC AGE AMERICA AND THE WORLD

History 6393-02  
History 4394-01  
Fall, 2011  
Monday, 5:30-9:00 pm  
549AH

Dr. Martin Melosi

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The primary goal of this course is to understand the impact of an extraordinary and revolutionary technology on the United States in particular and the world in general. We will explore the emergence of military and peaceful uses of atomic energy as a prism through which to better understand the scientific, environmental, diplomatic, institutional, social, and cultural history of the United States since 1939, with background in the development of atomic theory going back as far as the 6<sup>th</sup> century B.C.E.

Class sessions normally will be a combination of discussion of common readings and viewing/critiquing documentary and commercial films about topics related to atomic energy. The extensive use of film is meant to complement the readings and discussion, and to provide visual evidence that either reflects contemporary perspectives on atomic energy and related issues or promotes a particular point of view relevant to the topic of class discussion for that week. There are hundreds of films that make allusion to nuclear weapons and nuclear power, so we will be viewing a very small sampling. In most cases, I will provide some written material about the films in advance of the viewings in order to help direct our discussions.

Participation in class discussions about the readings and the films will be essential. Each graduate student also will prepare five reviews, a research paper, and an annotated bibliography to distribute in class. Undergraduates will prepare three reviews, a shorter research paper, and a shorter annotated bibliography.

## **Required Readings\*:**

David Lindley, *Uncertainty* (2008)  
Kai Bird and Martin Sherwin, *American Prometheus* (2005)  
J. Samuel Walker, *Prompt and Utter Destruction* (2004)  
John Earl Haynes and Harvey Klehr, *Early Cold War Spies* (2006)  
Richard Rhodes, *Dark Sun* (1995)  
Michael Dobbs, *One Minute to Midnight* (2008)  
Kenneth D. Rose, *One Nation Underground* (2001)  
Brian Balogh, *Chain Reaction* (1993)

J. Samuel Walker, *Three Mile Island* (2004)  
Jacob Darwin Hamlin, *Poison in the Well* (2009)  
Francis Fitzgerald, *Way Out in the Blue* (2001)

\* Each week I also will provide a draft chapter from my new book manuscript (and possibly a few other articles as needed) which will follow the themes of the course.

### **Weekly Sessions:**

August 22: **Introduction**

Film: The Day the Earth Stood Still (1951)

August 29: **Atomic Theory over the Centuries**

Film: Copenhagen (2002)

Readings: Lindley, *Uncertainty*

September 5: **LABOR DAY**

September 12: **Government Mobilizes the Atom: Big Science and the Manhattan Project**

Film: The Beginning or the End (1947)

Readings: Bird and Sherwin, *American Prometheus*, 1-322

September 19: **Hiroshima and Nagasaki**

Film: White Light, Black Rain (2007)

Readings: Walker, *Prompt & Utter Destruction*

September 26: **Cold War and Atomic Diplomacy: Deterrence and Espionage**

Film: The Atomic City (1952)

Readings: Bird and Sherwin, *American Prometheus*, 323-591

Haynes and Klehr, *Early Cold War Spies*

October 3: **Fear of Fallout and the H-Bomb**

Film: On the Beach (1959)

Readings: Rhodes, *Dark Sun*

October 10: **The Cold War, Massive Retaliation, and Sputnik**

Film: Dr. Strangelove (1964)

Readings: Rose, *One Nation Underground*

October 17: **To the Brink: The Berlin and the Cuban Missile Crises**

Film: *Matinee* (1993)

Readings: Dobbs, *One Minute to Midnight*

October 24: **Too Cheap to Meter: Peaceful Uses of the Atom**

Film: *Atoms for Peace*

Readings: Balogh, *Chain Reaction*

October 31: **Nuclear Power v. the Environment**

Film: *China Syndrome* (1979)

Readings: Walker, *Three Mile Island*

November 7: **The Post-TMI World and Chernobyl**

Film: *Back to Chernobyl* (1994)

Readings: articles

November 14: **End of the Fuel Cycle: Radioactive Wastes**

Film: *Silkwood* (1983)

Readings: Hamlin, *Poison in the Well*

November 21: **The End of the Cold War and the Arms Race**

Film: *The Day After* (1983)

Readings: Fitzgerald, *Way Out in the Blue*

November 28: **Proliferation, Terrorism, and Climate Change**

Film: *Crimson Tide* (1995)

Readings: articles

## Assignments:

Graduate students (or those taking the course for graduate credit) are required to write:

(a) Five (5) critical book/film reviews (at least two book reviews) on material not included in the common readings nor among the films shown in class. Each review should be 1,250 to 1,500 words.

Due Dates: **August 29:** Turn in list of books/films for review

- include six or seven so I can suggest the best choices
- alternatively, contact me about topics you're interested in and I can make some suggestions

**Sept. 12:** First review due

**Sept. 26:** Second review due

**Oct. 10:** Third review due

**Oct. 24:** Fourth review due

**Nov. 7:** Fifth review due

(b) A research paper/bibliographic essay of about 5,000 to 6,000 words (20 to 25 pages) on a topic relevant to the themes of the course. I will give you wide latitude to prepare as creative a paper as you can.

Due Date: **Nov. 21** (I will return the paper to you on Nov. 28, and you can provide me with a revised version during a day specified during Finals Week to be announced.)

(c) Each graduate student will prepare an annotated bibliography to be handed out in class. The bibliography (of ten books) should focus on a topic relevant to one of the themes of the session. In the annotations, the student should discuss the basic theme and interpretation of each book in two or three sentences per book.

Undergraduate students (or those taking the course for undergraduate credit) are required to write:

(a) Three (3) critical book/film reviews (at least one book review) on material not included in the common readings nor among the films shown in class. Each review should be 1,000 to 1,250 words.

Due Dates: **August 29:** Turn in list of books/films for review

- include five or six so I can suggest the best choices
- alternatively, contact me about topics you're interested in and I can make some suggestions

**Sept. 12:** First review due

**Oct. 10:** Third review due

**Nov. 7:** Fifth review due

(b) A research paper/bibliographic essay of about 2,500 to 3,750 words (10 to 15 pages) on a topic relevant to the themes of the course. I will give you wide latitude to prepare as creative a paper as you can.

Due Date: **Nov. 21** (I will return the paper to you on Nov. 28, and you can provide me with a revised version during a day specified during Finals Week to be announced.)

(c) Each undergraduate student will prepare an annotated bibliography to be handed out in class. The bibliography (of five books) should focus on a topic relevant to one of the themes of the session. In the annotations, the student should discuss the basic theme and interpretation of each book in two or three sentences per book.

**Grades:**

Grades will be based on the following:

Class participation: 20%  
Reviews: 30%  
Research Paper: 35%  
Annotated Bibliography: 15%