

History of Science 538: Science in the Twentieth Century--Historical Themes & Issues

3 Credits; H(Humanities); I(Intermediate)

2 hrs lec (1:20 MW, 6104 Social Science), 1 hr disc (1:20 F, 6117 Soc Sci)

Prerequisites: Hist of sci grad or undergrad majors only. Jr st or cons inst. Not open to stdts who have had Hist Sci 203

Instructor: Mr. Siegel

Major themes in the physical and biological sciences in the twentieth century, with attention to:

- * conceptual development in science
- * interaction of science and society
- * philosophical issues in science
- * personalities in science

Lectures

Lectures will meet with History of Science 203, and will furnish additional material for the Friday discussion meetings (see 203 course description for lecture topics).

Discussion Meetings

Friday discussion meetings will most likely have a group tutorial flavor.

Course Requirements

Course requirements will be flexible, tailored to the individual. In most cases, a serious term paper will be a part of the requirements. Attendance is required at all class sessions.

SCIENCE IN THE TWENTIETH CENTURY--HISTORICAL THEMES AND ISSUES

Book List (University Bookstore)

Required:

David Cassidy, Einstein and Our World
Timothy Ferris, The Red Limit, 2nd ed.
Daniel Kevles, The Physicists: The History of a Scientific Community in Modern America
Richard Rhodes, The Making of the Atomic Bomb
Ann Sayre, Rosalind Franklin and DNA
James D. Watson, The Double Helix, ed. Gunther S. Stent

Recommended:

Larry Gonick & Mark Wheelis, The Cartoon Guide to Genetics, updated ed.
Albrecht Folsing, Albert Einstein: A Biography

Reading Selections (subject to adjustments)

For Part I: Kevles, Preface (1st ed.), Ch. 1-14
Cassidy, entire
Rhodes, Ch. 1-5, 7

For Part II: Watson, pp. ix-246
Gonick & Wheelis, pp. 37-46, 53-67, 84-86, 91-96, 104-111, 116-125, 154-155
Sayre, entire
Rhodes, Ch. 8-11, 14, 17, 19, Epil. (except pp. 754-78)

For Part III: Ferris, entire
Kevles, Ch. 21-25, Preface (1995)

Term Paper

Due in lieu of final exam at 12:25 p.m., Tuesday, May 11.

DEFAULT RDG SCHEDULE - HIST SCI 538 - SPR 99

Week	Date	Reading
1	J 22	[Intro]
2	J 29	Kevles, Pref (1st ed), Ch 1-7
3	F 5	Kevles, Ch 8-14
4	F 12	Rhodes, Ch 1-5, 7
5	F 19	Cassidy, entire
6	F 26	Watson, original text Gonick, 104-11, 116-25, 154-5
7	Mr 4	Watson, rest thru p. 246 Gonick, 37-46, 53-67, 84-6, 91-6
8	Mr19	Sayre, entire
9	Mr26	Rhodes, Ch 8-11, 14
10	A 2	Recess
11	A 9	Rhodes, Ch 17, 19, Epil (not 754-78)
12	A 16	Ferris, Ch 1-4
13	A 23	Ferris, Ch 5-10
14	A 30	Kevles, Ch 21-25
15	My 7	[Conferences]
Ex	D 17	