

Science, Technology, and the Cold War

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Office Hours (Winter Quarter 2004)
Tues 12:30-1:15; Weds 3:30-4:18
or by appointment

“One story reflecting Moscow’s longtime approach to its military requirements tells of the need to develop a writing instrument that would work in the weightlessness of space: the Americans spent a fortune on R & D to create such an exquisite pen; the Russians decided to use a pencil.”

-Derek Leebaert

Given the importance of the threat of nuclear annihilation to the Cold War, one might think that science and technology have been central to scholarly efforts to understand the Cold War; however, this has tended not to be the case. Instead, we have tended to focus on ideology and politics, since these are the areas in which the two superpowers differed most dramatically. This course is intended to complement such political and economic analyses of the Cold War and its aftermath by focusing on how the United States and the Soviet Union promoted science and technology during their long ideological struggle. Naturally we will examine the importance of physics and engineering as they produced the technologies of the arms race—nuclear weapons, missiles, satellites, etc. We will also look at research in basic biology, medicine, and public health in both countries, as well as the emergence of the Internet and a computer culture in the United States. Of central importance in this course are the ways that science and technology contributed to the physical and material well being of the people of both countries. By exploring how science and technology helped (or failed to help) the governments of these two countries meet the needs of their people, we will come to a better understanding of why the Soviet Union collapsed in the early nineties, and will be better able to assess the costs of the Cold War for both countries.

Assigned Readings:

The following books for the course are available at SBX Bookstore.
Edward Judge and John Langdon, A Hard and Bitter Peace (Required)
Loren Graham, The Ghost of the Executed Engineer (Required)
Thomas Hughes, Rescuing Prometheus (Required)
Steven Zaloga, Target America (Required)
Stuart Leslie, The Cold War and American Science (Required)
Scott Shane, Dismantling Utopia (Required)

Some of the readings for this course are on closed reserve in the Main Library. These are listed in the schedule of lectures/assignments.

Course Requirements and Grading:

You are expected to attend class regularly and to participate in discussions in an informed manner. You must complete each reading assignment before class and come prepared to discuss the material with the rest of us.

Three take-home midterm exams, 4-5 pages in length, will be due during the term. The exams, as well as details on completing them, will be handed later in the term. Each exam will be due at the beginning of class 5 days after it is handed out. Late exams will be penalized one letter grade per day late they are turned in.

A take home final exam incorporating ideas from the entire term will be due during finals week. The exam will be handed out during the last week of class, and you will have roughly one week to complete it. More details will be given with the exam itself.

Grades will be determined based on the following allocation of points:

<i>Participation in Class Discussions:</i>	<i>100</i>
<i>Midterm Exams</i>	<i>600 (3 Exams, 200 Points each)</i>
<i>Final Paper</i>	<i>300</i>
<i>Total Points:</i>	<i>1000</i>

The grading scale is as follows: 93-100% = A; 90-92% =A-; 87-89% =B+; 83-86% =B; 80-82% =B-; 77-79% =C+; 73-76% =C; 70-72% =C-; 67-69% =D+; 60-66% =D; 59% and below =E.

All students must be officially enrolled by the end of the second week of class. No requests to add the class will be approved by the Department of International Studies after that time. Enrolling officially and on time is the responsibility of the student. Please see me as soon as possible if you are interested in enrolling and are not on the roster. It may not be possible to enroll all students because of space limitations. Graduating seniors and students needing to use the Office for Disability Services should see me as soon as possible regarding any special arrangements they might require.

NOTE ON PLAGIARISM:

Plagiarism is using someone else's thoughts or words in your own work without giving that person credit. It is a particularly loathsome form of academic misconduct, and unfortunately, during my years at OSU the incidence of plagiarism has increased steadily. In particular, inappropriate use of papers, reviews, and other materials taken from the Internet has become commonplace. I will NOT tolerate plagiarism or academic misconduct of any kind. If I suspect that an assignment has been plagiarized, either in part or in full, I will forward it to the Committee on Academic Misconduct. If plagiarism is confirmed, the student will automatically fail the course. No exceptions will be made. It really makes me angry. Please don't do it.

Schedule of Lectures and Readings:

Before the Cold War

Tuesday, 1/6: Course Introduction; Industrialization of the United States and Soviet Union

Thursday, 1/8: America and the Soviet Union in the 1930s; Begin WWII
Reading: Judge and Langdon, Chs. 1, 2; Graham, Chs. 1-3

The Outbreak of the Cold War

Tuesday, 1/13: Finish WWII; The Manhattan Project and the Decision to Use the Atomic bomb; film "The Manhattan Project"

Thursday, 1/15: The Early Cold War

Reading: "The Sources of Soviet Conduct;" available online at <http://www.historyguide.org/europe/kennan.html>; Judge and Langdon, Chs. 3-7

The Early Years of the Arms Race

Tuesday, 1/20: Science in the Soviet Union: The Atomic Bomb and Lysenko

Thursday, 1/22: Toward Nuclear Annihilation: The H-Bomb and ICBMs

First Midterm Exam to be handed out in class

Reading: Zaloga, Chs. 1-5; Hughes, Chs. 1, 3

Cold War Cultures

Tuesday, 1/27: Cold War America; Film "The Atomic Café"

First Midterm Exam Due at beginning of class

Thursday, 1/29: The Soviet Union: Society, Research, and Reform under Nikita Khrushchev

Reading (Reserve): Josephson, "Rockets, Reactors, and Soviet Culture;" Judge and Langdon, Chs. 8-9; Zaloga, Ch. 6; Graham, Ch. 4

The Militarization of Research in America

Tuesday, 2/3: The Military/Industrial/University Complex

Thursday, 2/5: NO CLASS

Readings: Hughes, Chs. 2, 4; Begin Leslie

Science and Technology in the Two Germanies

Tuesday, 2/10: Finish Military Industrial Complex/discuss Leslie; The West German "Economic Miracle."

Thursday, 2/12: Constructing Socialism in East Germany

Second Midterm Exam to be handed out in class

Reading: Finish Leslie

The Cold War in the 1960s

Tuesday, 2/17: Political Developments: Berlin, Cuba, Vietnam

Second Midterm Exam due at beginning of class

Thursday, 2/19: Nuclear Proliferation; The Space Race

Reading: *Judge and Langdon, Chs. 10-12; Zaloga, Chs. 9-10*

The Cold War in the 1970s

Tuesday, 2/24: Détente and Arms Control; Oil and the Global Economy

Thursday, 2/26: Computers, Information, and the Internet

Readings (Reserve): *Starr, "New Communications Technologies and Civil Society;" Judge and Langdon, Chs. 13-14; Hughes, Ch. 6; Zaloga, Chs. 11-12*

The Intensification of Cold War Hostilities in the 1980s

Tuesday, 3/2: Reagan and Gorbachev; The End of the Cold War

Thursday, 3/4: The End of the Soviet Union

Third Midterm Exam to be handed out in class

Reading: *Judge and Langdon, Chs. 15-16; Shane, Chs. 1-5*

The End of the Cold War

Tuesday, 3/9: Understanding the Soviet Collapse

Third Midterm Exam Due at beginning of class

Final Exam to be handed out in class

Thursday, 3/11: The Cost of the Cold War

Reading: *Finish Graham; Finish Shane; Finish Judge and Langdon*

**The Class of 2008:
Undergraduate Student Academic Services (USAS) Responses to Excellence**

The Class of 2008: A Snapshot

The class of 2008 is another best-prepared class of first-year students to attend Ohio State. Our autumn quarter class includes 5,861 first year students, and 1,756 transfer students. Of the first-year student total, 1,277 are Honors students, and 732 are Scholars students; 386 are African-American students, and 160 are Hispanic-American students.

ASC new first quarter freshmen by College

	Total	Honors Students	Scholars Students
Arts	211	33	33
Arts and Sciences	41	20	9
Biological Sciences	606	193	131
Humanities	240	57	56
Mathematical and Physical Sciences	207	72	21
Social and Behavioral Sciences	632	116	108

*Report of first year students by academic major:
<http://www.asc.ohio-state.edu/USAS/class2004NFQF.html>*

715 transfer students declared majors in an Arts and Sciences department or program:

Arts	69
Arts and Sciences	15
Biological Sciences	116
Humanities	131
Mathematical and Physical Sciences	71
Social and Behavioral Sciences	313

*Report of new transfer students by academic major:
<http://www.asc.ohio-state.edu/USAS/class2004transfer.html>*

The ACT average for our new first quarter freshmen is 25.63, an increase of approximately 0.3 over last year. (We do not have preparedness data on transfer students.)

For the Arts and Sciences colleges, ACT averages are as follows:

Arts	25.18
Arts and Sciences	27.59
Biological Sciences	26.11
Humanities	26.74
Mathematical and Physical Sciences	27.01
Social and Behavioral Sciences	25.34

Undergraduate Student Academic Services (USAS): Changing Strategies to Support our Better Prepared Students

- To respond to the better academic preparedness of our undergraduate population, **USAS advising** is focusing on two important areas:
 - individualized degree planning, taking into account the curricular recommendations of departments with regard to both GEC and major area courses, as well as timely progress toward degree, and
 - internship and job placement, with a goal of enabling students to use their learning to the fullest by placing them in careers commensurate with their academic achievement.

Approximately 35% of Arts and Sciences (ASC) graduates attend graduate or professional school and the remaining 65% move into the private and public sectors. We have long had good support for graduate and professional school placement. Working together, our ASC Career Services Office and the ASC departments are now providing greater support for internship and career placement.

- USAS advisers worked with each first-year and transfer student at xx **summer orientations** to prepare schedules that included courses recommended by the ASC departments.
- This autumn, each of these students is enrolled in **Survey 100**, a one-hour survey course designed to do three things:
 - familiarize them with the academic procedures and policies that govern Ohio State generally and the Arts and Sciences specifically;
 - construct preliminary and individualized four-year degree plans based on the recommended GEC and major area courses in their major department; some of this planning will take place in group settings, but it will culminate in a one-hour individual appointment with an academic counselor to review the plan, discuss questions and alternatives, and make firm decisions about courses for winter quarter; and
 - provide opportunities for faculty and departmental staff to meet with these new students to give them preliminary major information and begin the faculty-student major area relationship that students consistently identify as essential to their undergraduate experience.
- Beyond the survey course and the individual follow-up meetings, USAS advisers will be in regular **email contact** with students to ask them to assess their own performance. These emails will include invitations to discuss tutoring, schedule adjustments, and special extra-classroom opportunities.
- USAS is committed to encouraging students to engage in a wide variety of **extra-classroom experiences** that reinforce the classroom experience. Among these are:
 - the Community Commitment service experience
 - the ASC Book Community experience
 - faculty presentations
 - external departmental speakers
 - special university-level speakers
 - Columbus arts, history, and cultural events

Looking Ahead

In addition to being ever better prepared, our undergraduates are increasingly demonstrating their satisfaction with their Ohio State experience. In 1995, student retention from the first to the second year was at approximately 78%. Today, it is at 88%, and it's expected to rise to 92% before leveling off.

As autumn quarter gets underway, you can look forward to having your classes filled with students who will excite, challenge, and reward your efforts. I hope you will let us know how USAS can enhance that experience still further.

Sincerely,
Jack Cooley
Assistant Executive Dean
Colleges of the Arts and Sciences
cooley.5@osu.edu

Beth,

This is to let you know that the faculty involved with the development of the Neuroscience minor approved the inclusion of Ling 371 (cross-listed with Psych 371) in the advanced electives section. The minor will be reviewed this week by Subcommittee A of the Arts and Sciences Committee on Curriculum and Instruction. Thank you for bringing this course to the attention of the faculty.

Linda

Linda G. Schoen
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