ARIZONA STATE UNIVERSITY

GENERAL STUDIES PROGRAM COURSE PROPOSAL COVER FORM

Courses submitted to the GSC between 2/1 and 4/30 if approved, will be effective the following Spring.
Courses submitted between 5/1 and 1/31 if approved, will be effective the following Fall.

(SUBMISSION VIA ADOBE.PDF FILES IS PREFERRED)

DATE 4/13/11

1. ACADEMIC UNIT: School of Letters & Sciences - Science, Technology and Society

2. COURSE PROPOSED:
   STS 260 Politics of Science and Technology 3.0
   (prefix) (number) (title) (semester hours)

3. CONTACT PERSON:
   Name: Irene Rodriguez Phone: 727-1385
   Mail Code: 0180 E-Mail: irene@asu.edu

4. ELIGIBILITY: New courses must be approved by the Tempe Campus Curriculum Subcommittee and must have a regular course number. For the rules governing approval of omnibus courses, contact the General Studies Program Office at 965-0739.

5. AREA(S) PROPOSED COURSE WILL SERVE. A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study. (Please submit one designation per proposal)

   Core Areas
   Literacy and Critical Inquiry-L ☐
   Mathematical Studies-MA ☐
   CS ☐
   Humanities, Fine Arts and Design-HU ☐
   Social and Behavioral Sciences-SB ☒
   Natural Sciences-SQ ☐
   SG ☐

   Awareness Areas
   Global Awareness-G ☐
   Historical Awareness-H ☐
   Cultural Diversity in the United States-C ☐

6. DOCUMENTATION REQUIRED.
   (1) Course Description
   (2) Course Syllabus
   (3) Criteria Checklist for the area
   (4) Table of Contents from the textbook used, if available

7. In the space provided below (or on a separate sheet), please also provide a description of how the course meets the specific criteria in the area for which the course is being proposed.

CROSS-LISTED COURSES: ☒ No ☐ Yes; Please identify courses:

Is this an unscheduled course?: ☒ No ☐ Yes; Is it governed by a common syllabus?:

Nicholas Alosie
Chair/Director (Print or Type)  
Date: 4/13/2011

Rev. 1/94, 4/95, 7/96, 4/00, 1/02, 10/08
<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
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<tbody>
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<td></td>
<td>1. Course is designed to advance basic understanding and knowledge about human interaction.</td>
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<td>STS 260 Syllabus Table of contents from major text.</td>
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<td>2. Course content emphasizes the study of social behavior such as that found in:</td>
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<td>- ANTHROPOLOGY</td>
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<td>- CULTURAL GEOGRAPHY</td>
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<td>- HISTORY</td>
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<td>3. Course emphasizes:</td>
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<td>a. the distinct knowledge base of the social and behavioral sciences (e.g., sociological anthropological).</td>
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<td>OR</td>
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<td>b. the distinct methods of inquiry of the social and behavioral sciences (e.g., ethnography, historical analysis).</td>
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<td>4. Course illustrates use of social and behavioral science perspectives and data.</td>
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<td>STS 260 Syllabus Table of contents from major text.</td>
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<td>THE FOLLOWING TYPES OF COURSES ARE EXCLUDED FROM THE [SB] AREA EVEN THOUGH THEY MIGHT GIVE SOME CONSIDERATION TO SOCIAL AND BEHAVIORAL SCIENCE CONCERNS:</td>
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<td>- Courses with primarily fine arts, humanities, literary, or philosophical content.</td>
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<td>- Courses with primarily natural or physical science content.</td>
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<td>- Courses with predominantly applied orientation for professional skills or training purposes.</td>
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<td>- Courses emphasizing primarily oral, quantitative, or written skills.</td>
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<td>Criteria (from checksheet)</td>
<td>How course meets spirit (contextualize specific examples in next column)</td>
<td>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</td>
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<tr>
<td>1</td>
<td>This is a interdisciplinary course that deals with core knowledge in the social and behavioral sciences and draws from disciplines across that knowledge base. Discussions about how technology is changing human existence on earth are at the heart of technological change itself. In recent times, questions about the reach of reproduction technologies, war technologies, utilitarian technologies such as nuclear energy, and information technologies have been at the forefront of the debate about science and technology. This is a core social and behavioral science course.</td>
<td>Both the course learning outcomes and the topical outline show very clearly discussions about science and technology and different aspects of societal control of scientific endeavors.</td>
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<td>2</td>
<td>Course content emphasizes the study of social and behavioral science as they apply to anthropology, economics, history, cultural geography, sociology, political science, psychology, public policy.</td>
<td>This is an interdisciplinary course that utilizes literature from the social sciences at large, as indicated in the course outline.</td>
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<td>3</td>
<td>-A- Course emphasizes sociological and anthropological methodologies. This is clear on the syllabus in areas that speak to learning outcomes and individual topics from weeks 1-15.</td>
<td>Weeks 1-15 noted in syllabus.</td>
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Arizona State University Criteria Checklist for

SOCIAL AND BEHAVIORAL SCIENCES [SB]

Rationale and Objectives

The importance of the social and behavioral sciences is evident in both the increasing number of scientific inquiries into human behavior and the amount of attention paid to those inquiries. In both private and public sectors people rely on social scientific findings to assess the social consequences of large-scale economic, technological, scientific, and cultural changes.

Social scientists' observations about human behavior and their unique perspectives on human events make an important contribution to civic dialogue. Today, those insights are particularly crucial due to the growing economic and political interdependence among nations.

Courses proposed for General Studies designation in the Social and Behavioral Sciences area must demonstrate emphases on: (1) social scientific theories and principles, (2) the methods used to acquire knowledge about cultural or social events and processes, and (3) the impact of social scientific understanding on the world.
STSS 260: Politics of Science and Technology
Spring 2011
Arizona State University at the Polytechnic Campus
School of Letters and Sciences
Science and Technology Studies

Instructor: Scott Scheall
Office: Santa Catalina Hall, 252L
Email: scott.scheall@asu.edu

Course Description: Science and technology do not exist in a vacuum. They are part of the organized human community and thus, are subject to the kinds of controls exerted by government on other human activities. The subject of this course is the relationship between government, politics, science, and technology. Topics include the effects of public policy on the development of scientific theories and new technologies, and the influence of science and technology on government. The focus is on American democracy, but other nations and forms of government are considered as well.

Pre-requisites: None required.

Course Learning Outcomes:
Students completing this course will:

- Understand the limitations government and public policy place on science and technological pursuits;
- Understand how the U.S. government sets the agenda for science and technology;
- Understand the many ways government enhances technological pursuits, including direct funding through institutions such as the National Science Foundation (NSF) and the National Institutes of Health (NIH);
- Understand how science and technology shape government and public policy, including the concept of technological dependence;
- Understand how government regulation impacts the use of scientific results.

Course outline: The course is divided into four parts:

1. Introduction to science, technology, and politics: Introduction to the course's topics, themes, and requirements.
2. The current state of science and technology policy: This section of the course discusses the relevant government institutions involved in making and implementing science and technology policy. Specific policies — including their history, enactment, implementation, revision, and success (or lack thereof) — are addressed.
3. The impact of science and technology on government: The various ways in which scientific and technological change can influence policy-making are addressed. Topics include the influence of new technologies on wealth distribution, and the relationship between technology and the military.
4. Political control of science and technology: To what extent can government effectively control science and technology? To what extent is government control of science and technology desirable?
Required readings:


Course Requirements:

Exams (Midterm and Final – 40% each) 80%
Term Paper 20%

*Exams:* There will be two exams, a midterm and a final. Neither exam is cumulative.

*Term Paper:* You are required to write a (minimum) 5 page term paper. The paper must be typed, double-spaced, using default margins and a standard (Times New Roman or Arial) 12-point font. **The term paper must be an argumentative essay.** You’ve all gone through high school, so I assume that you know how to write such an essay. **It is important that you NOT write a descriptive book report.**

You are free to select your own topic provided that it relates to the course material. I **strongly recommend that students discuss their proposed topics with me in advance.** This step is not required, but it will make your life easier. If you write a paper on a topic without my approval, and that topic is silly or unrelated to the course material, then your grade will suffer. It is also important that you start working on the term paper well in advance of its due date. **Do not wait to the last minute to choose a topic and begin writing.** Your grade will likely suffer as a result.

The term paper is worth **20% of your final grade.** You will be graded on both the quality of your argument and your writing (write clearly; use proper spelling, grammar, and punctuation; etc.) **The term paper is due on the last day of class.**

**NO LATE WORK WILL BE ACCEPTED UNDER ANY CIRCUMSTANCES**

Classroom Rules:

It is essential that you adhere to the following rules.

- Be RESPECTFUL of others, especially when they offer views different from your own.
- Be OPEN TO FEEDBACK from the instructor and fellow class participants.
- Provide CONSTRUCTIVE feedback to class participants.

Course Schedule (Tentative – subject to change):

**Week One:** Read *Beyond Sputnik: Preface* (pgs. ix-x) and Ch. 1, “Science Policy Defined” (pgs. 3-16); Read *Science, Money, and Politics:* Ch. 1, “The Metropolis of Science” (pgs. 15-22)
Week Two: Read *Beyond Sputnik*: Ch. 2, “U.S. Science Policy Before and After Sputnik” (pgs. 17-24) and Ch. 3, “The Players in Science Policy” (pgs. 25-51)

Week Three: Read *Beyond Sputnik*: Ch. 4, “The Process of Making Science Policy” (pgs. 52-71) and Ch. 5, “Federal Funding for Research” (pgs. 72-91)

Week Four: Read *Beyond Sputnik*: Ch. 6, “Federal Partners in the Conduct of Science: Universities” (pgs. 93-116); Ch. 7, “Federal Laboratories” (pgs. 117-133); and Ch. 8, “Industry” (pgs. 134-152)

Week Five: Read *Beyond Sputnik*: Ch. 9, “The States” (pgs. 153-164) and Ch. 10, “The Public” (pgs. 165-180); Read *Science, Money, and Politics*: Ch. 2, “The Ossified Enterprise” (pgs. 23-40)

Week Six: Read *Beyond Sputnik*: Ch. 11, “Science for National Defense” (pgs. 181-196) and Ch. 12, “Big Science” (pgs. 197-215); Read *Science, Money, and Politics*: Ch. 5, “The Whimpering Giant” (pgs. 66-77)

Week Seven: Read *Beyond Sputnik*: Ch. 13, “Scientific Infrastructure” (pgs. 216-227) and Ch. 14, “Scientific Ethics and Integrity” (pgs. 228-249)

Week Eight: Read *Beyond Sputnik*: Ch. 13, “Science, Technology, Engineering, and Mathematics Education” (pgs. 250-277); **MIDTERM EXAM**

Week Nine: Read *Science, Money, and Politics*: Ch. 7, “The Malthusian Imperative and the Politics of Trust” (pgs. 89-106); Ch. 8 “PhD Production: Shortfall, Scarcity; and Shortage” (pgs. 107-128); and Ch. 9 “The Congressional Griddle” (pgs. 129-148)

Week Ten: Read *Science, Money, and Politics*: Ch. 10, “Detour Into Politics” (pgs. 149-163); Ch. 11 “Nixon Banishes the Scientists” (pgs. 164-182); and Ch. 12 “The Sciences’ Way of Politicking” (pgs. 183-204)

Week Eleven: Read *Science, Money, and Politics*: Ch. 15, “Science and the Illusion of Political Power” (pgs. 244-251); Ch. 16 “The Political Few” (pgs. 252-268); and Ch. 17 “The Scientific Ghetto” (pgs. 269-277)

Week Twelve: Read *Science, Money, and Politics*: Ch. 18, “Connecting to Politics”; Ch. 19 “Politicking by Report”; and Ch. 20 “Science to the State Department: You Need Us”

Week Thirteen: Read *Science, Money, and Politics*: Ch. 21, “From Social and Political Passion to Grubbing for Money”; Ch. 22 “The Ethical Erosion of Science”

Week Fourteen: Read *Beyond Sputnik*: Ch. 16, “The Science and Engineering Workforce” (pgs. 277-295); Ch. 17, “Globalization and Science Policy” (pgs. 296-309); and Ch. 18 “Science and Homeland Security” (pgs. 310-330)

Week Fifteen: Read *Beyond Sputnik*: Ch. 19, “Grand Challenges for Science and Society” (pgs. 331-344) and Ch. 20, “Science, Science Policy, and the nation’s Future” (pgs. 345-360); **FINAL EXAM**
**Academic Integrity:** Cheating and plagiarism is not tolerated. If a student is charged with academic dishonesty and found to be in violation, disciplinary action will be taken and a student’s name will be kept on file. Disciplinary action may result in the student receiving an XE grade, suspension or expulsion from the academic unit, and/or referral to Student Judicial Affairs. For further information, please read the Student Code of Conduct at: http://www.asu.edu/aad/manuals/sta/sta104-01.html

**E-Mail Correspondence:** Please ensure that all of your written correspondence in this course is professional and competently written. I will not respond to emails that are poorly written (i.e., that include run-on sentences, are incoherent, lack punctuation/capitalization, or are otherwise grammatically flawed). Typos are understandable — no one is perfect — but it is usually obvious when you have not proofread (or spell-checked) your message before sending.

The subject line of all emails should accurately reflect the reason for the message and should contain “STS 260” somewhere in the subject line. If your email is especially important, please type “URGENT” in the subject line, followed by the subject of your message.

I typically respond to emails within 24 hours. If you do not receive a response within 24 hours, please do not bombard my inbox with additional messages.

**Accommodations for Students with Special Needs:** Those who would benefit from alternative accommodations and who are registered with ASU’s Office of Disability Resources for Students should notify me within the first three days of class. I will gladly work with you to accommodate your needs.

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. One element of this legislation requires that all qualified students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation please contact ASU’s Office of Disability Resources for Students at the Polytechnic campus. Call 480-727-1039 / TTY: 480-727-1009. Eligibility and documentation policies are available online: http://www.asu.edu/studentaffairs/ed/drc/

**Incomplete Grades:** A grade of “Incomplete” will be granted only in extreme situations. Please visit http://www.asu.edu/registrar/forms/regforms.html under the Academic Record Forms section for the Incomplete Grade Request form, which is available in both Word and as a PDF. The form must be completed by the student, signed by the student, the instructor, and the department chair or school director.

**Student Conduct:** Students are required to adhere to the behavior standards listed in the Arizona Board of Regents Code of Conduct:

http://www.asu.edu/studentaffairs/reslife/outreach/abor_code.htm

ACD 125: Computer, Internet, and Electronic Communications
http://www.asu.edu/aad/manuals/acd/acd125.html

and the ASU Student Academic Integrity Policy:

http://provost.asu.edu/academicintegrity

Students are entitled to receive instruction free from interference by other members of the class. If a student is disruptive, an instructor may ask the student to stop the disruptive behavior and warn the student that such disruptive behavior can result in withdrawal from the course. An instructor may withdraw a student from a course when the student's behavior disrupts the educational process (http://www.asu.edu/studentaffairs/vp/safety/disruptive_student_behavior).

**Student Support Services:** There are many support services available to students across the University

Polytechnic campus site: http://www.poly.asu.edu/students/services/

The **Writing Center at the Polytechnic Campus:** The Polytechnic Writing Center offers tutoring services. The Center is located in the Academic Center Building. Although walk-ins are accepted, it is strongly recommended that you make an appointment. Please call (480) 727-1452. Online tutoring is also available. For more information, visit the Writing Center’s website (http://studentsuccess.asu.edu/polytechnic/writing).

**ASU Libraries:** - http://lib.asu.edu/

Polytechnic campus link: http://lib.asu.edu/poly/

**Counseling and Consultation:** The University's Counseling and Consultation Office provides confidential mental health and career counseling services for all ASU students: http://students.asu.edu/counseling

Polytechnic campus site (Student Counseling Services): http://students.asu.edu/counselingpoly

**Student Success Centers:** The University's Student Success Centers (SSC) are located on each ASU campus and provide an array of academic support services. http://studentsuccess.asu.edu/

The Student Success Center at the Polytechnic Campus: http://studentsuccess.asu.edu/polytechnic.

**Career Services:** http://students.asu.edu/career

Polytechnic campus site: http://students.asu.edu/career/poly

**Student Financial Aid Office:** http://students.asu.edu/financialaid

**Student Health and Wellness Center:** The Student Health Center provides non-emergency medical health care to all ASU students regardless of insurance status. www.asu.edu/health/
**Student Recreational Center:** The University's Student Recreational Centers offer individual and group fitness facilities, as well as information on nutrition and wellness. Use of the general facilities (weights, circuit training and cardio machines) are free, other services (yoga classes, massages) are fee-based. [www.asu.edu/src/](http://www.asu.edu/src/)

Polytechnic campus site: [http://www.poly.asu.edu/pac/](http://www.poly.asu.edu/pac/)

**Student Legal Assistance:** The Student Legal Assistance office provides legal advice and counsel free of charge to all ASU students in areas such as landlord-tenant law, credit reports and collection issues, taxability of scholarships and grants, etc. Notary service is also available at no charge. [http://www.asu.edu/studentaffairs/mu/legal/](http://www.asu.edu/studentaffairs/mu/legal/)

**Help Wiki** – provides FAQ resources for technology users at ASU. [http://wiki.asu.edu/help/](http://wiki.asu.edu/help/)

Information Technology on the Polytechnic campus: [http://campus.asu.edu/polytechnic/uto](http://campus.asu.edu/polytechnic/uto)

**EMPACT Crisis Hotline** – The EMPACT hotline offers free 24-hour support for mental health crises. Call (480) 784-1500 in the Phoenix area, (866) 205-5229 for the toll-free number outside of Phoenix, and (480) 736-4949 for the sexual assault hotline. All services are free and confidential. [http://www.empact-spc.com/](http://www.empact-spc.com/)
Required readings:

Contents

Preface xi
Acknowledgments xiii
A Note on the Text xiv

SECTION 1 Overview of U.S. Science Policy
1. Science Policy Defined 3
2. U.S. Science Policy before and after Sputnik 17
3. The Players in Science Policy 23
4. The Process of Making Science Policy 52
5. Federal Funding for Research: Rationale, Impact, and Trends 72

SECTION 2 Federal Partners in the Conduct of Science
6. Universities 93
7. Federal Laboratories 117
8. Industry 134
9. The States 153
10. The Public 165

SECTION 3 Science Policy Issues in the Post-Sputnik Era
12. Big Science 197
13. Scientific Infrastructure 216
14. Scientific Ethics and Integrity 228
15. Science, Technology, Engineering, and Mathematics Education 250

SECTION 4 Science Policy in an Era of Increased Globalization
16. The Science and Engineering Workforce 277
17. Globalization and Science Policy 296
19. Grand Challenges for Science and Society 331

Index 461
Year of Unprecedented R&D Growth Expected in 2000

Collected $641 Million in Invention Royalties on Innovations Tied in With Science, Money, and Politics

Political Triumph and Ethical Erosion
Contents

Acknowledgments and a Note on Sources and Methods

Introduction

13  1  The Metropolis of Science

23  2  The Overted Enterprise

41  3  Vannevar Bush and the Myth of Creation

69  4  The Glorious Past

86  5  The Whimpering Giant

78  6  Money, More Money, Statistics, and Science

89  7  The Malthusian Imperative and the Politics of Trust

167  8  Ph.D. Production: Shortfall, Scarcity, and Shortage

129  9  The Congressional Griddle

149  10  Detour into Politics

164  11  Nixon Banishes the Scientifi

181  12  The Sciences' Way of Politicking

205  13  The Public Understanding of Science

214  14  The TV Solution

244  15  Science and the Illusion of Political Power

252  16  The Political Few

269  17  The Scientific Ghetto

278  18  Connecting to Politics

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