

October 29, 2008

TO: The General Studies Council
FROM: Nicholas Alozie *NOA*
Head, Social and Behavioral Sciences
RE: STS Courses Submitted for General Studies Review

Earlier this year the ABOR approved the B.S. degree program in Science, Technology, and Society for the Polytechnic campus (see attached memorandum from Provost Capaldi). Science, Technology, and Society (STS) is a social science discipline that investigates the interrelationship of science/technology and human systems. Typically, issues concerning the impact of science/technology on globalization, reproductive technology and human values, information technology and human relations, and science/technology and public policy and governance all come under the general domain of studies in STS. All of the STS courses included in this review are *required* to support this new degree program. These courses have all gone through the ACRES process and have received final approval (see attached front sheet from ACRES).



ARIZONA STATE UNIVERSITY

March 28, 2008

TO: David Schwalm, Dean
School of Applied Arts and Sciences

FROM: Elizabeth D. Capaldi
Executive Vice President and Provost of the University

SUBJECT: B.S. in Science, Technology, and Society

This is to notify you that on March 25, 2008, the Academic Affairs Committee of the Board of Regents approved the request for authorization to implement the B.S. in Science, Technology, and Society.

You may proceed to implement the proposal effective immediately. The following plan code has been established in OASIS, effective fall 2008: ECSTSBS

XC: Maria Allison
Bridgot Allcott
Jill Andrews
Nancy Dickson
Melinda Gebel
Jennifer Glawson
Heather Hoffart
Cecilia Hook
Glenn Irvin
Nancy Kiernan
Phyllis Lucie
Linda Pedersen
Julie Ramsden
Adrian Sannier
Gini Sater
David Young
Nicholas Alozie
Lisa Frank

EXECUTIVE VICE PRESIDENT AND PROVOST OF THE UNIVERSITY

FULTON CENTER, SUITE 420
300 EAST UNIVERSITY DRIVE
PO BOX 877805, TEMPE, AZ 85287-7805
(480) 965-1224 FAX: (480) 965-0785
betty.capaldi@asu.edu

New Course Curriculum Form

Arizona State University

E STS 306 Social Effects of Science and Technology 3.0 - Spring 2009 | CL: None

Originator: Silvia Llamas-Flores **Status:** Approved **Department:** Social and Behavioral Sciences (Polytechnic)

Date Created: 05/07/2008 **Submitted:** 05/14/2008 **Completed:** 10/20/2008 **To**

ACETS:**Campus:** E**College:** Applied Arts and Sciences**Subject:** STS**Number:** 306**Title:** Social Effects of Science and Technology**Abbreviated title:** Social Effects of Science Tech**Semester hours:** 3.0**Effective semester:** - Spring**Summer justification:** N/A**Effective year:** 2009

Catalog description: Examines the effects of science and technology on social life and the contexts in which those effects manifest.

Primary component: Lecture

Graded component: *Same as primary component

Additional component(s):

Optional component(s):

Cross-listing: | CL: None

Cross-listed course (s):

Enrollment Requirements?: Yes

Prerequisite(s): STS 101, 304, or instructor approval

Conditional prerequisite(s):

Corequisite(s):

Pre-/corequisite(s):

Repeat for credit: No

Total hours allowed:

Total completions allowed:

Multiple

ARIZONA STATE UNIVERSITY EAST/TEMPE CAMPUS
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 10/31/2008

1. ACADEMIC UNIT: ASUP SOCIAL AND BEHAVIORAL SCIENCES
2. COURSE PROPOSED: STS 306 Social Effects of Science and Technology (3)
(prefix) (number) (title) (semester hours)
3. CONTACT PERSON: Name: Sherrie Loomis Phone: 480/727-1984
Mail Code: 0180 E-Mail: sherrie.loomis@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.

Core Areas

- Literacy and Critical Inquiry-L
Mathematical Studies-MA CS
Humanities and Fine Arts-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
(Note: one course per form)

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 a multisection course?: No Yes; Is it governed by a common syllabus? _____

NICHOLAS ALOZIE
Chair/Director (Print or Type)

Nicholas Alozie
Chair/Director (Signature)

Date: 10/29/2008

Syllabus
Arizona State University Polytechnic Campus
School of Applied Arts and Sciences
Social and Behavioral Sciences

STS 306 Social Effects of Science and Technology

Fall, 2008

Schedule Line Number:

Satisfies General Studies:

Venue: Santa Catalina Hall 133
Time: 2:00PM – 3:15PM
Days: Monday and Wednesday
Meeting Dates: 8/25/2008 – 12/9/2008
Class Format: Lecture/Discussion

Professor: Dr. Nicholas Alozie
Office: Santa Catalina (SANCA) 252M
Tel.: (480) 727-1395
E-Mail: Alozie@asu.edu

Office Hours: Mondays & Wednesdays 12:00pm-
1:30pm, and by appointment.

Course Description:

Technology and science are among the most potent forces transforming life on earth in the new millennium. This course is devoted to study of the interaction of these forces with society, primarily but not exclusively in the contemporary U.S. The overarching purpose of the course is to enhance the student's understanding of the natures, social relations, and cultural significance of science and technology. To this end, the course explores key ethical, social, cultural, and policy issues associated with the development of technology and science in contemporary society. Major course themes include: (a) salient sociological features of contemporary science and technology; (b) noteworthy influences of these forces on 21st-century society and culture; (c) the social shaping of scientific and technological activities, products, and systems to serve conflicting interests; and (d) changes in social mentalities, institutions, and policies needed to enhance the influence of science and technology on society in the future. STS as a field of study that is at once intellectually stimulating and socially relevant.

The following topics will be treated in the course: Science and Society: Their Nature and Interrelationship; Salient Sociological Characteristics of Contemporary Science; Salient Sociological Characteristics of Contemporary Technology; Contexts of Science and Technology; Theories of Science and Technology in Society; The Influence of Science and Technology on Modern and Contemporary Society; Science, Technology, and Cultural Institutions: Work and Leisure; Science, Technology and Social Groups: Children, Women, Ethnic Minorities, and the Elderly; Science, Technology, and the Fine Arts: Painting and Architecture; Ethical Issues in Science; Ethical Issues in Engineering

Science, Technology, and International Relations; The Influence of Science and Technology on Contemporary U.S. Culture; Cultural and Political-Economic Influences on the Practice and Products of contemporary Science and Technology; and Contemporary Industrial Design.

Learning Outcomes:

Students are expected to develop a sophisticated understanding of:

- The theories
- the effects of science and technology on human society both positive and negative, and unintended outcomes and the debates associated with measuring these outcomes.
- the social shaping of science and technology.
- the logic of science and technology.

Required Materials

Four materials are required, as follows:

Daniel Klieman. *Science, technology in Society: From Biotechnology to Internet*. Blackwell Publishing. 2005.

Thomas Easton. *Taking Sides: Clashing Views on Controversial Issues in Science, technology, and Society*. McGraw-Hill. 2004.

McGinn, R.E. *Science, Technology, and Society*. Englewood, Cliff, N.J.: Prentice-Hall. 1991.

Neil Postman. *Technopoly: The Surrender of Culture to technology*. New York: Vintage Books. 1993.

Course Format:

The general format is a physical classroom where the class meets twice weekly for lecture and discussion. Prior to each class, students are expected to read the required materials (per the class schedule below, plus any additional readings handed out in class or otherwise assigned). Students are expected to generate a list of questions from the reading assignments and/or appropriate to the class topic(s), and to participate in the class dialogue. Students will be graded on class participation.

Expectations & Course Requirements:

Reading assignments are per course outline and should be completed prior to the associated lecture. Students are expected to participate in class dialogue.

The mid-term exams, and the final exam are due WHEN SCHEDULED. An exam may be taken late if excused by the instructor for legitimate reasons. Irrespective of the reasons given for missing an exam, the exam is nevertheless compromised by taking it after it has already been administered to the class. Therefore, any exam taken late will be automatically lowered by one grade. A student who misses an exam must make arrangements to take the exam within one week after the scheduled date of administration to the class. It is the instructor's prerogative to

administer a substitute exam, different from the one administered to the class. An exam not taken within a reasonable time frame is forfeited. After review of exam results, ALL EXAMS MUST BE RETURNED to the instructor. Failure to return an exam will result in zero credit for that exam.

Any student wishing to contest a grade on any quiz or exam, must do so by presenting a supporting argument IN WRITING to the instructor, or to personally meet with the instructor during office hours within one week after receiving the contested grade. The class IS NOT TO BE INTERRUPTED over any one individual's contested grade. There are no guarantees, but the instructor will take a reasonable argument into consideration and will make grade adjustments as deemed appropriate and fair.

When taking a test for this class, and if a particular question seems ambiguous, it is suggested that the student EXPLAIN IN THE BORDERS the reason(s) for his or her answer. Even if the wrong answer, credit may be given if correct logic is used in the answer/explanation. DO NOT ASK THE PROCTOR TO EXPLAIN THE QUESTION. Part of taking an exam is predicated upon the student's understanding of the way questions are asked, or the semantics used to construct questions.

Attendance is MANDATORY, and roll will be taken. There are roughly 30 class periods scheduled for the semester. The student is authorized 10% or 3 days sick leave without incurring a penalty for absence. Each day of absence beyond the allowable (3) sick days reduces the final grade by 1/3 grade (e.g. an A becomes an A-; a C+ becomes a C; and so forth). There are no authorized absences, regardless of cause, beyond the allowed 3 days (i.e, sick days should be used for their authorized purpose, not for vacation). It is not necessary to call in sick.

Grading:

- Weekly reading and class participation (20%)
- Issue research paper (20%)
- Midterm and Final exam (30% Each = 60%)

The Final Grade Will be Computed as Follows:

| | | |
|------------|----------|----|
| Weighting: | 98 - 100 | A+ |
| | 94 - 97 | A |
| | 90 - 93 | A- |
| | 88 - 89 | B+ |
| | 84 - 87 | B |
| | 80 - 83 | B- |
| | 75 - 79 | C+ |
| | 70 - 74 | C |
| | 60 - 69 | D |
| | 0 - 59 | E |

Topical Outline:

Science and Society: Their Nature and Interrelationship
Salient Sociological Characteristics of Contemporary Science
Salient Sociological Characteristics of Contemporary Technology
Contexts of Science and Technology
Theories of S and T in Society
The Influence of Science and Technology on Modern and Contemporary Society
Science, Technology, and Cultural Institutions: Work and Leisure
Science, Technology and Social Groups: Children, Women, Ethnic Minorities, and the Elderly
Science, Technology, and the Fine Arts: Painting and Architecture
Ethical Issues in Science
Ethical Issues in Engineering
Science, Technology, and International Relations
The Influence of S and T on Contemporary U.S. Culture
Cultural and Political-Economic Influences on the Practice and Products of
contemporary Science and Technology
Contemporary Industrial Design
Retrospection and Conclusion

ADA Statement:

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 reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation please contact the Disability Resource Center at ASU Polytechnic located in Student Affairs Quad #4 or call 480-727-1039/TTY 480-727-1009. Eligibility and documentation policies online at <http://www.asu.edu/studentaffairs/ed/drc>

Student Academic Integrity: Students are required to adhere to the policy on student conduct identified in the ASU Student Academic Integrity Policy (http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm) and the Arizona Board of Regents Policy Manual (http://www.abor.asu.edu/1_the_regents/policymanual/chap5/chapter_v.htm#C.%20CODE%20)

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.

Proposer: Please complete the following section and attach appropriate documentation.

| ASU--[SB] CRITERIA | | | | | |
|--|--|--|--|--|----------|
| A SOCIAL AND BEHAVIORAL SCIENCE [SB] course should meet all of the following criteria. If not, a rationale for exclusion should be provided. | | | | | |
| YES | NO | | Identify Documentation Submitted | | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Course is designed to advance basic understanding and knowledge about human interaction. | Syllabus | | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2. Course content emphasizes the study of social behavior such as that found in: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> • ANTHROPOLOGY • ECONOMICS • CULTURAL GEOGRAPHY • HISTORY </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> • LINGUISTICS • POLITICAL SCIENCE • SOCIAL PSYCHOLOGY • SOCIOLOGY </td> </tr> </table> | <ul style="list-style-type: none"> • ANTHROPOLOGY • ECONOMICS • CULTURAL GEOGRAPHY • HISTORY | <ul style="list-style-type: none"> • LINGUISTICS • POLITICAL SCIENCE • SOCIAL PSYCHOLOGY • SOCIOLOGY | Syllabus |
| <ul style="list-style-type: none"> • ANTHROPOLOGY • ECONOMICS • CULTURAL GEOGRAPHY • HISTORY | <ul style="list-style-type: none"> • LINGUISTICS • POLITICAL SCIENCE • SOCIAL PSYCHOLOGY • SOCIOLOGY | | | | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Course emphasizes: a. the distinct knowledge base of the social and behavioral sciences (e.g., sociological anthropological). OR b. the distinct methods of inquiry of the social and behavioral sciences (e.g., ethnography, historical analysis). | Syllabus | | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Course illustrates use of social and behavioral science perspectives and data. | Syllabus | | |
| | | THE FOLLOWING TYPES OF COURSES ARE EXCLUDED FROM THE [SB] AREA EVEN THOUGH THEY MIGHT GIVE SOME CONSIDERATION TO SOCIAL AND BEHAVIORAL SCIENCE CONCERNS: | | | |
| | | • Courses with primarily fine arts, humanities, literary, or philosophical content. | | | |
| | | • Courses with primarily natural or physical science content. | | | |
| | | • Courses with predominantly applied orientation for professional skills or training purposes. | | | |
| | | • Courses emphasizing primarily oral, quantitative, or written skills. | | | |

| Course Prefix | Number | Title | Designation |
|---------------|--------|---|-------------|
| STS | 306 | <u>SOCIAL EFFECTS OF SCIENCE AND TECHNOLOGY</u> | SB |

Explain in detail which student activities correspond to the specific designation criteria.
Please use the following organizer to explain how the criteria are being met.

| Criteria (from checksheet) | How course meets spirit (contextualize specific examples in next column) | Please provide detailed evidence of how course meets criteria (i.e., where in syllabus) |
|---|--|---|
| Course is designed to advance basic understanding and knowledge about human interaction and emphasizes the study of social behavior such as found in anthropology, economics, cultural geography, history, political science, social psychology, and sociology. | This course exams the effects of science and technology on social life and the contexts in which those effects manifest. Accordingly, it requires treatment of the interaction of science and technology and human systems. This is core social and behavioral science material. | The learning outcomes in this course require that students gain a thorough understanding of the theories and effects of science and technology on human society both positive and negative. These will include examination of the effect of science and technology on contemporary society, development of human cultures and institutions, work and leisure, and group identity. |
| Course emphasizes both the distinct knowledge of the social and behavioral sciences and the distinct methods of inquiry of the social and behavioral sciences. | The course emphasizes major themes such as (a) salient sociological features of contemporary science and technology; (b) noteworthy influences of these forces on 21st-century society and culture; (c) the social shaping of scientific and technological activities, products, and systems to serve conflicting interests; and (d) changes in social mentalities, institutions, and policies needed to enhance the influence of science and technology on society in the future. STS as a field of study that is at once intellectually stimulating and socially relevant. | As pages 3- 4 of the syllabus show, the topics included in this course emphasize a uniquely social and behavioral science knowledge base. These topics cover the distinct knowledge of the social and behavioral sciences and the distinct methods of inquiry of social and behavioral sciences. |
| Course illustrates use of social and behavioral science perspectives and data. | The course relies on accumulated literature predicated upon practical and theoretical evidence in social and behavioral sciences. | The syllabus lists the topics to be covered. These topics illustrate use of social and behavioral sciences perspective and data. |