

# TECHNOLOGY AND SOCIAL CHANGE

## Undergraduate Study

Technology and social change is a cross-disciplinary program examining the relationships between technologies and their social and cultural environments. Students will examine the ethical and philosophical contexts of technology, with a particular emphasis on global engagement. Through T SC, students will better understand the institutional and sociocultural consequences of technological change from differing perspectives and will become sensitive to the issues attending the use of technology to improve people's lives. Work in the program can also serve as preparation for advanced study in the field.

### Minor

The program requirement for a minor in technology and social change is a minimum of 15 credits.

T SC 220	Globalization and Sustainability	3
3 credits from T SC cross-listed courses		3
9 credits selected from T SC cross-listed courses or from the list of T SC approved courses		9
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Total Credits		15

At least 9 of the 15 credits must be in courses numbered 300 or above. Because technology and social change is an interdisciplinary study, minor programs must include coursework in at least two departments. Students seeking a minor should develop a specific program of courses either with the T SC faculty representative in their department or with the T SC coordinator. The student's minor program must be approved by the T SC program coordinator.

## Graduate Study

The graduate minor in technology and social change is a cross-disciplinary program that enables students to study the interactions between technologies and their users, on both societal and individual levels. The minor strengthens the ability of students to apply differing perspectives in understanding the effects of the global exchange of technologies and to heighten their sensitivity to the institutional and sociocultural issues attending the use of technology to improve people's lives.

Students choosing to minor in technology and social change will pursue a degree program in the major department. In consultation with their major professor, students are to identify a T SC Faculty member to serve on the committee guiding their program of study. This T SC Faculty member must be on the Graduate faculty and must be from a discipline outside the major field of study. With the agreement of the

POS committee, the student declaring a minor in T SC will select a group of courses from the list of T SC approved courses available through the program coordinators. For the master's degree, this group should be at least 9 credits; for a doctoral degree, the group should be at least 15 credits. In either case, T SC 543C Seminar in Social Change and Development: Technological Innovation, Social Change and Development is required. Students may not include in their minor any courses from their own major. All programs of study that include a T SC minor must be approved by the T SC Program coordinator.

### Courses primarily for undergraduates:

#### T SC 220: Globalization and Sustainability

(Cross-listed with ANTHR, ENV S, GLOBE, M E, MAT E, SOC). (3-0) Cr. 3. F.S.

An introduction to understanding the key global issues in sustainability. Focuses on interconnected roles of energy, materials, human resources, economics, and technology in building and maintaining sustainable systems. Applications discussed will include challenges in both the developed and developing world and will examine the role of technology in a resource-constrained world. Cannot be used for technical elective credit in any engineering department.

Meets International Perspectives Requirement.

#### T SC 342: World Food Issues: Past and Present

(Cross-listed with AGRON, ENV S, FS HN). (3-0) Cr. 3. F.S.

*Prereq: Junior classification*

Issues in the agricultural and food systems of the developed and developing world. Emphasis on economic, social, historical, ethical and environmental contexts. Causes and consequences of overnutrition/undernutrition, poverty, hunger and access/distribution. Explorations of current issues and ideas for the future. Team projects.

Meets International Perspectives Requirement.

#### T SC 342H: World Food Issues: Past and Present, Honors

(Cross-listed with AGRON, ENV S). (3-0) Cr. 3. F.S.

*Prereq: Junior classification*

Issues in the agricultural and food systems of the developed and developing world. Emphasis on economic, social, historical, ethical and environmental contexts. Causes and consequences of overnutrition/undernutrition, poverty, hunger and access/distribution. Explorations of current issues and ideas for the future. Team projects.

Meets International Perspectives Requirement.

**T SC 343: Philosophy of Technology**

(Cross-listed with PHIL). (3-0) Cr. 3. F.S.

*Prereq: 6 credits of social science or T SC 341 and 3 credits of social science*

Moral and other philosophical problems related to developments in technology. Topics may include conditions under which technological innovations contribute to human emancipation, relationship of technology and democracy, utility and limits of technical rationality, and problems of ensuring that benefits of technological advance are communally shared. Topics discussed with reference to such issues as contemporary developments in microelectronics, technology transfer to the Third World, etc.

**Courses primarily for graduate students, open to qualified undergraduates:**

**T SC 543: Seminar in Social Change and Development**

(Cross-listed with SOC). (3-0) Cr. 3. Alt. F., offered even-numbered years.

*Prereq: 6 credits in sociology*

Seminar in social change and development.

**T SC 543B: Seminar in Social Change and Development: Sociology of Adoption and Diffusion**

(Cross-listed with SOC). (3-0) Cr. 3. Alt. F., offered even-numbered years.

*Prereq: 6 credits in sociology*

**T SC 543C: Seminar in Social Change and Development: Technological Innovation, Social Change and Development**

(Cross-listed with SOC). (3-0) Cr. 3. Alt. F., offered even-numbered years.

*Prereq: 6 credits in sociology*