

# Technology and Social Change (T SC)

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## T SC 590. Special Topics: Technology and Social Change.

Cr. arr. Prereq: T SC 541, permission of instructor and of T SC coordinator  
Individual study of topics concerning global and local implications of technological change.

### Courses primarily for undergraduates:

#### T SC 220. Globalization and Sustainability.

(Cross-listed with ANTHR, ENV S, GLOBE, MAT E, M 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 341. Technology: International, Social, and Human Issues.

(3-0) Cr. 3. F. Prereq: Junior classification  
An interdisciplinary study of the international significance of technology and of the societal and human issues attending its development and adoption.

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

(Cross-listed with ENV S, FS HN, AGRON). (3-0) Cr. 3. F.S. Prereq: Junior classification  
Zdorkowski, Ford. 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. Nonmajor graduate credit.  
Meets International Perspectives Requirement.

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

(Cross-listed with ENV S, FS HN, AGRON). (3-0) Cr. 3. F.S. Prereq: Junior classification  
Zdorkowski, Ford. 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. Nonmajor graduate credit.  
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. Nonmajor graduate credit.

#### T SC 474. Communication Technology and Social Change.

(Cross-listed with JL MC). (3-0) Cr. 3. Prereq: Junior classification  
Examination of historical and current communication technologies, including how they shape and are shaped by the cultural and social practices into which they are introduced.  
Meets International Perspectives Requirement.

#### T SC 490. Independent Study.

Cr. arr. Repeatable. Prereq: T SC 341, permission of instructor and of T SC coordinator

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

#### T SC 543. Technological Innovation, Social Change, and Development.

(3-0) Cr. 3. Alt. F., offered 2012. Prereq: 6 credits in social sciences  
Sources, theories and models of technological innovation; social and institutional contexts of technology transfer; appropriate/intermediate technology; issues and methods of impact assessment; planning technology related social change; democratic control of technological innovations and application; local and international case studies.

#### T SC 574. Communication Technologies and Social Change.

(Cross-listed with JL MC). (3-0) Cr. 3. Prereq: 6 credits in social science  
Personal, organizational, and social implications of the use of communication technologies. Includes theories and empirical research across the continuum of perspectives, from techno-utopianism through an anti-technology stance.  
Meets International Perspectives Requirement.