Science, Technology and Society

Dr. Kevin L. Borg, Coordinator
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Science, technology and society (STS) is an internationally recognized field of cross disciplinary study that integrates philosophical, social scientific and humanistic studies to better understand the natural and human-built world. The minor offers students the opportunity to critically examine science, technology and medicine as methods for reasoning about and acting upon the natural world as expressions of human cultures, past and present. Students learn to scrutinize the ideas, reasoning, values, practices and artifacts embedded in the world they inhabit today. They explore how choices made within various historical, social, economic and political contexts sometimes influence the development of science, technology and medicine. They also see how the adoption and diffusion of ideas, artifacts and techniques can then influence individuals, society, politics and culture. Courses in this minor draw students together from diverse majors across the campus and encourage open inquiry into the role of science and technology in society.

The minor in STS is open to all undergraduate students at JMU. Courses taken to complete the STS minor can also be used to satisfy the student’s major and General Education requirements. The STS minor requires 18 credit hours with at least one course each from the history, sociology and ISAT courses listed.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ISAT 131. Technology, Science, and Society</td>
<td>3</td>
</tr>
<tr>
<td>HIST 327. Technology in America</td>
<td></td>
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<tr>
<td>SOCI 310. Science, Technology, and Society</td>
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</tbody>
</table>

Elective courses

Choose five from at least four different programs/majors:

- ANTH 340. The Invention of Race
- ANTH 360. Medical Anthropology
- ANTH 373. Anthropological Perspectives on Environment and Development
- ARTH 303. History of Design
- ARTH 376. Modern Architecture
- CS 330. Societal and Ethical Issues in Computing
- GEOG 322. Agricultural Systems
- GEOG 325. Environmental Ethics
- GEOG 344. Economic Geography and Development Issues
- GEOG/ISAT 429. Sustainability: An Ecological Perspective
- HIST 305. History of Science and Christianity
- HIST 306. A History of the Body in the West
- HIST 326. The Automobile in 20th Century America
- HIST 327. Technology in America
- HIST 404. Science and Society in Early Modern Europe
- HIST 405. Travel and Exploration
- HIST 427. U.S. Environmental History
- HIST 443. Modern American Technology and Culture
- ISAT 231. Political Economy of Technology and Science
- ISAT 311. Role of Energy in Modern Society
- ISAT 411. Energy Economics and Policy
- ISAT 421. Environmental Policy and Regulation
- ISAT 456. Ethical, Legal and Social Implications of Biotechnology
- ISAT 464. Telecommunications in the Public Interest
- ISAT 471. Transportation: Energy, Environment and Society
- ISAT 477. Complex Systems and How They Fail
- PHIL 398. Philosophy of Physics
- PHIL 399. Philosophy of Space and Time
- PHIL 398. Philosophy of Quantum Theory
- PHIL 410. Philosophy of Science
- SOCI 311. Sociology of the Environment
- SOCI 316. Space, Time and the Human Social Environment
- SOCI 366. Sociology of Knowledge
- SOCI 375. Medical Sociology

Special topics courses can be applied to the minor with approval of the program coordinator. Students may also earn credit by studying in a program in Russia or any of the former Soviet states.

Russian Studies

Dr. Maria Galmarini, Coordinator
Phone: (540) 568-3474 Email: galmarinmx@jmu.edu

This minor offers students a broad, cross disciplinary perspective on Russian culture, history, political institutions, economy and geography. This program deepens the students’ understanding of the Russian and non-Russian peoples of the former Soviet Union, and prepares them for careers in teaching, government and international business.

The Russian Studies minor requires 18 credits with a minimum of six credits of Russian language. Students should take courses in at least three different disciplines from the following list:

- RUS 100. Russian Language and Conversation
- RUS 101. Elementary Russian
- RUS 104. Elementary Russian

Choose one of the following courses:

- RUS 205. Russian Oral and Written Communication
- RUS 266/HUM 200. Russian Literature in Translation/Great Works

Choose five from at least four different programs/majors:

- ECON 312. Comparative Economic Systems
- HIST 385. The Russian Empire to 1881
- HIST 474. Stalinism in Theory, Practice and Memory
- HIST 475. Modern Russia
- POCS 337. Russia and Post-Soviet Politics
- RUS 266/HUM 200. Russian Literature in Translation/Great Works
- RUS 300. Russian Grammar and Communication
- RUS 308. Introduction to Russian Civilization
- RUS 315. Russian Phonetics
- RUS 320. Russian Oral and Written Communication
- RUS 400. Advanced Russian Conversation
- RUS 405. Russian Literature of the 19th Century
- RUS 406. Russian Literature of the 20th Century
- RUS 438. Studies in Russian Literature

Students may also earn credit by studying in a program in Russia or any of the former Soviet states.

Robotics Project Course

CISE 481. Robotics Project Summary

1 A basic preparation course may be waived by the minor adviser if a student has completed a comparable course or experience.
2 Must be an ISAT 131 section taught using a procedural programming language (e.g., Python).
3 Must be an approved section of ISCI 101 and ISCI 104, with a robotics theme.
4 At least one elective must be from a different department from the core course.
Special topics courses not listed can be applied to the minor with prior approval of the program coordinator.

**Sport Communication**

*Dr. Isaac Woo, Coordinator*

Phone: (540) 568-3815  Email: wocom@jmu.edu

This minor consists of course work offered in communication studies, media arts and design, and kinesiology for students with an interest in sports media and communication.

Due to enrollment limitation in required courses, admission to JMU does not guarantee admission to the sport communication minor. Students interested in this program must apply for a limited number of spaces while first completing KIN 242 and SCOM 260. The School of Communication Studies reviews applications for admission to the sport communication minor. Students should complete the application (available from the school website) and submit it by email to scom@jmu.edu. Students will receive an email acknowledging receipt of their application, which should be kept. Applications are due by November 15 (fall semester) and April 15 (spring semester). Students who have applied by these deadlines will be notified of the admission decision at the end of the semester in which they complete KIN 242 and SCOM 260. Admission is granted to the most qualified students as determined by their performance in these courses.

Students who are not admitted may file one additional application before the next regular academic year. Students reapplying must apply in two consecutive years of enrollment at the university. If a student reapplies after retaking KIN 242 and/or SCOM 260 (whether repeat or repeat/forgive), the school will look only at the highest grades earned when evaluating their second application.

Because of the curriculum sequence, it typically takes four consecutive semesters to complete the minor. Rising seniors typically cannot complete the minor by graduation. Some required courses are offered only one semester a year.

Once admitted, a student cannot retroactively apply more than nine hours of SCOM courses, including SCOM 260, to this minor.

This minor is open to any student at the university including SCOM majors, however, SCOM majors are limited to double counting no more than six credits to both their major and minor.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>KIN 242, Introduction to Sport Communication</td>
<td>3</td>
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<tr>
<td>KIN/SMAD 243. Sport Communication Techniques – Broadcast</td>
<td>3</td>
</tr>
<tr>
<td>KIN/SMAD 244. Sport Communication Techniques – Written</td>
<td>3</td>
</tr>
<tr>
<td>SCOM 260. Introduction to Public Relations</td>
<td>3</td>
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<tr>
<td>SCOM 318. Practicum in Sport Communication</td>
<td>3</td>
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<tr>
<td>SCOM 365. Sports Public Relations</td>
<td>3</td>
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<tr>
<td>SCOM 464. Communication, Culture and Sports</td>
<td>3</td>
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</tbody>
</table>

Choose one of the following:

- KIN 304. History and Philosophy of Physical Education and Sport
- KIN 329. Psychological and Social Aspects of Sports
- SCOM/WS 348. Communication and Gender
- SCOM 342. Argument and Advocacy
- SCOM 347. Communication, Diversity and Popular Culture

**Substance Abuse Prevention**

*Katherine Ott Walter, Adviser*

Phone: (540) 568-8972  Email: ottwalnk@jmu.edu

This cross disciplinary substance abuse prevention minor provides the student with the foundational knowledge and skills necessary to assist communities in designing science-based prevention programs to encourage healthy attitudes and behaviors towards alcohol, tobacco and other drugs. Course work in this minor will help prepare the student for the Certified Prevention Professionals, ATOD exam, which they can take after one year of prevention-related paid work experience and additional prevention-specific training.

**Required Courses**

<table>
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<tr>
<td>One of the following (foundational knowledge):</td>
<td>3</td>
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<tr>
<td>HTH 230. Community Health</td>
<td></td>
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<tr>
<td>PSYC 160. Life Span Human Development</td>
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<tr>
<td>FAM/GERN/NPS/SOWK. 375 Grant Writing for Agencies</td>
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<td>HHS 415. Ethical Decision-Making in Healthcare: An Interprofessional Approach</td>
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</tbody>
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<tr>
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</thead>
<tbody>
<tr>
<td>One of the following (education and skill development):</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 308. Health Psychology</td>
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<td>HTH 351. Health Behavior Change</td>
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<td>One of the following (alcohol, tobacco and other drug-specific):</td>
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<tr>
<td>PSYC 285. Drugs and Behavior</td>
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<tr>
<td>HTH 378. The Use and Effects of Drugs</td>
<td></td>
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<tr>
<td>One of the following (public policy-specific):</td>
<td>3</td>
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<tr>
<td>PPA 359. Policy Analysis</td>
<td></td>
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<tr>
<td>PPA 462. Social Welfare and Local Policy</td>
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<tr>
<td>SOWK 335. Social Policy (SOWK majors only)</td>
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</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>One of the following (population-specific):</td>
<td>3</td>
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<tr>
<td>PSYC 250. Introduction to Abnormal Psychology</td>
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<tr>
<td>PSYC 335. Abnormal Psychology</td>
<td></td>
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<tr>
<td>SOWK 386. Youth Empowerment Strategies</td>
<td></td>
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<tr>
<td>SOWK 387. Working with Teenagers Required Capstone Course</td>
<td>3</td>
</tr>
<tr>
<td>HTH 458. Program Planning and Evaluation</td>
<td></td>
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<tr>
<td>HTH 389. Practicum/Internship (Optional)</td>
<td>1-3</td>
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</tbody>
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1 This course is required for students whose major does not have a practicum or internship. Students may complete 30 hours for 1 credit, 60 hours for 2 credits or 90 hours for 3 credits in the field of ATOD prevention/education.

**Telecommunications**

*Dr. Mohamed Aboutabl, Adviser*

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Website: http://www.cs.jmu.edu/telecomminor.html

The cross disciplinary minor in telecommunications is designed to augment the student’s major program with a package of courses that will prepare the graduate to obtain a position as a telecommunication/network professional and fill a societal need in one of the fastest growing areas of technology.