SCIENCE, TECHNOLOGY, ENVIRONMENT AND PUBLIC POLICY (STEPP) MINOR

The minor in Science, Technology, Environment and Public Policy is open to all undergraduate students at Michigan State University and may be combined with any undergraduate major.

The Science, Technology, Environment and Public Policy Minor (STEPP) is a cross-collegiate endeavor bridging the strengths of James Madison College, Lyman Briggs College and the Department of Fisheries and Wildlife. STEPP will train you in public policy that relates to science, technological development, and environmental science to promote change, become social, political and scientific leaders, and formulate and implement public policy. Students can use STEPP to study public policy related to topics such as health care, biomedicine, the environment, space science, national security, bioethics, communications technology, sustainability, science and religion, public health, information technology, and science education.

The increasing complexity of scientific and technological issues challenges scientists and public policy makers alike. Solutions to these problems require interdisciplinary collaboration among technological, environmental, natural and social sciences, as well as the humanities. STEPP prepares future professionals to integrate these disciplines as policy-makers, policy analysts, or resource managers. It teaches students how to communicate with multiple audiences and become leaders in developing innovative science, technology, and environmental policies.

STEPP will allow interested students to pursue work in public policy as it relates to science, technology and the environment. This program 1) exposes students to the policy-making process at the local, state, national and international levels; 2) raises normative questions about issues like the role of scientists as experts, computers and privacy concerns, federal funding of science, genetic engineering, the role of the military in technological development, and issues in natural resources management; 3) examines historical trends and analyzes social relationships; 4) builds a strong understanding of scientific principles that can be used to formulate sound policy initiatives; and 5) facilitates links between policy-making and science, technology and the environment. Graduates of STEPP understand how policies are constructed at different levels of governance, and they possess the skills necessary to evaluate the merits of public policy that relates to issues of science, technology and the environment. STEPP produces professionals who are well prepared to synthesize information from multiple disciplines and integrate social and natural sciences in policy formulation and analysis. It also prepares students for graduate work in policy sciences, public health, environmental law, science and technology studies, and natural resource management.

STEPP Minor:

1. Science, Technology, Environment and Public Policy

One of the following courses:

LB	181	Introduction to Science, Technology, the Environment and Public Policy	3 credits
MC	181	Introduction to Science, Technology, the Environment and Public Policy	3 credits
FW	181	Introduction to Science, Technology, the Environment and Public Policy	3 credits

2. Science Applications

Any two natural science courses. Classes must be at the 200-level or above, consist primarily of natural science and not be integrative studies course. Students should check with STEPP coordinator to ensure that the particular course they chose will adequately fill the category.

3. Public Policy. Any two of the following courses:

ABM	400	Public Policy Issues in the Agri-Food System	3 credits
ABM	427	Global Agri-Food Industries and Markets	3 credits
ANR	250	Global Issues in Agriculture and Natural Resources	3 credits
EC	310	Economics of Developing Countries	3 credits
CSUS	464	Environmental and Natural Resource Policy in Michigan	3 credits
CSUS	465	Environmental and Natural Resource Law	3 credits
FOR	466	Natural Resource Policy	3 credits
FSC	421	Food Laws and Regulations	3 credits
FW	439	Conservation Ethics	3 credits
FW/MC	445	Biodiversity Conservation Policy and Practice	3 credits
FW/MC	450	International Environmental Law and Policy	3 credits
FW/MC	481	Global Issues in Fisheries and Wildlife	3 credits
FW	491	Special Topics in Fisheries and Wildlife	1-5 credits
LB	321A	Science and the Public – Arts and Humanities	4 credits
LB	321B	Science and the Public – Social Sciences (W)	4 credits
LB	322A	Advances in Science and Technology – Arts and Humanities (W)	4 credits
LB	322B	Advances in Science and Technology – Social Sciences (W)	4 credits
LB	326A	Medicine and Health – Arts and Humanities (W)	4 credits

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3. Public Policy (continued)

LB	326B	Medicine and Health – Social Sciences (W)	4 credits
LB	355	Philosophy of Technology	4 credits
MC	348	Educational Policy	4 credits
MC	361	Political Economy and Comparative Public Policymaking	4 credits
MC	363	Global Governance	4 credits
MC	364	Policy Evaluation	4 credits
MC	380	Social Policy	4 credits
MC	469	Applied Public Policy Research Seminar	3 credits

4. History, Philosophy, and Sociology of Science. Any two of the following courses:

EPI	390	Disease in Society: Introduction to Epidemiology and Public Health	4 credits
FW	211	Introduction to Gender and Environmental Issues	3 credits
HST/LB	425	American and European Health Care since 1800	4 credits
HST	483	Seminar in Modern European History (W)	3 credits
LB	323A	Science in a Global Context – Arts and Humanities (W)	4 credits
LB	323B	Science in a Global Context – Social Sciences (W)	4 credits
LB	324A	Science and Sex, Gender, Sexuality – Arts and Humanities (W)	4 credits
LB	324B	Science and Sex, Gender, Sexuality – Social Sciences (W)	4 credits
LB	325A	Science and the Environment – Arts and Humanities (W)	4 credits
LB	325B	Science and the Environment – Social Sciences (W)	4 credits
LB	327A	Scientific Practice – Arts and Humanities (W)	4 credits
LB	327B	Scientific Practice – Social Sciences (W)	4 credits
MC	350	Evolution and Society	4 credits
MC	351	Science and Social Policy	4 credits
PHL	344	Ethical Issues in Health Care	4 credits
PHL	380	Nature of Science	3 credits
CSUS	310	History of Environmental Thought and Sustainability	3 credits
SOC	368	Science, Technology, and Society	3 credits
SOC	452	Advanced Seminar in Environmental Sociology	3 credits

5. One of the following capstone courses:

MC	459	STEPP Capstone	3 credits
LB	459	STEPP Capstone	3 credits

Students interested in pursuing the Science, Technology, Environment and Public Policy Minor should contact the minor's coordinator and have the STEPP minor added to their record.

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This is a checklist for students in the Science, Technology, Environment and Public Policy minor who began in STEPP Fall of 2018 or later. Students should fulfill each of the following five requirements.[1]

1. **Gateway Course** Any one of the following courses:
   FW 181 _____ LB 181 _____ MC 181 _____

2. **Science Applications** Two courses:
Classes must be at the 200-level or above, consist primarily of natural science, and not be integrative studies courses. Students should check with the STEPP minor coordinator to ensure that the particular course they choose adequately fulfills this course.

3. **Public Policy.** Any two of the following courses:

ABM 400 _____
ABM 427 _____
ANR 250 _____
EC 310 _____
CSUS 464 _____
CSUS 465 _____
FOR 466 _____
FSC 421 _____
FW 439 _____
FW 445 _____
MC 450 _____
FW 481 _____
FW 491 _____

LB 321A _____
LB 321B _____
LB 322A _____
LB 322B _____
LB 326A _____
LB 326B _____
LB 355 _____
MC 348 _____
MC 361 _____
MC 363 _____
MC 364 _____
MC 380 _____
MC 445 _____
MC 450 _____
MC 469 _____

4. **History, Philosophy, & Sociology of Science.** Any two of the following courses:[2]

EPI 390 _____
FW 211 _____
HST 425 _____
HST 483 _____
LB 323A _____
LB 323B _____
LB 324A _____
LB 324B _____
LB 325A _____
LB 325B _____
LB 327A _____
LB 327B _____

MC 350 _____
MC 351 _____
PHL 344 _____
PHL 380 _____
CSUS 310 _____
SOC 368 _____
SOC 452 _____

5. **Capstone Course.** Any one of the following courses:
   LB 459 _____ MC 459 _____

1A student may petition the Coordinator of STEPP to allow for any class not on this list to be accepted in fulfillment of any of the five required categories. In these cases, the final decision is left to the coordinator, and students should always seek approval before enrolling in the class.
2At least two of the six courses in the Public Policy, the Science Applications, or the History, Philosophy and Sociology of Science requirements must be taken outside of the student's major department.