

Minor in Environment and Sustainability Studies

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As environmental challenges mount across the world, governmental agencies, policy makers, industry, and others will look to engineers and scientists to develop innovative solutions to meet these pressing demands.

The Environment and Sustainability Studies minor provides political, social, cultural, economic, and historical perspectives on modern environmental challenges and equips students with the critical and analytical tools required to address contemporary environmental challenges. The curriculum further encourages students to transcend disciplinary boundaries by providing opportunities to integrate and synthesize the many strands of knowledge that bear on environmental issues. When combined with their technical, engineering, and/or scientific degrees, graduates will have added marketable skills, which can also be translated into environmental careers, or post-graduate programs.

The Minor in Environment and Sustainability Studies requires 18 credits of coursework:

- 15 credits of Culture and Society (CAS) electives, and
- 3 credits of restricted environmental science and engineering electives*

*Faculty involved in the Environment and Sustainability Studies minor will work with colleagues across campus to identify upper-division electives in environmental science and engineering that can fulfill this requirement.

Students may also include up to 3 credits of independent study with the approval of the ESS Director.

Courses

HASS200: Global Studies: Environment: Students interested in the ESS Minor are encouraged to sign up for the Global Studies section focused on the environment. Please contact ESS Minor director for information on when this course is offered each semester.

Minor requirements

- Choose five courses from the CAS list. At least three courses must be from HASS, with one at the 400-level. Up to two courses can be from Economics and Business (EBGN), Engineering, Design, and Society (EDNS), or the approved courses from Geology and Geophysics (GEOC) and Petroleum Engineering (PEGN).
- Choose one course from the restricted STEM electives. Other courses may be approved by the ESS director.

HASS Courses

HASS323	INTRODUCTION TO SCIENCE COMMUNICATION	3.0
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HASS412	LITERATURE AND THE ENVIRONMENT	3.0
HASS421	ENVIRONMENTAL PHILOSOPHY AND POLICY	3.0
HASS464	HISTORY OF ENERGY AND THE ENVIRONMENT	3.0
HASS419	ENVIRONMENTAL COMMUNICATION	3.0
HASS423	ADVANCED SCIENCE COMMUNICATION	3.0
HASS427	RISK COMMUNICATION	3.0
HASS448	GLOBAL ENVIRONMENTAL ISSUES	3.0
HASS460	GEOPOLITICS OF NATURAL RESOURCES	3.0
HASS467	HISTORY OF EARTH AND ENVIRONMENTAL SCIENCES	3.0
HASS468	ENVIRONMENTAL JUSTICE	3.0
HASS484	US WATER POLITICS AND POLICY	3.0
HASS487	ENVIRONMENTAL POLITICS AND POLICY	3.0
HASS488	GLOBAL WATER POLITICS AND POLICY	3.0
HASS490	ENERGY AND SOCIETY	3.0
HASS491	ENERGY TRANSITION: POLITICS AND POLICY	3.0

Economics and Business Courses (EBGN)

EBGN310	ENVIRONMENTAL AND RESOURCE ECONOMICS	3.0
EBGN330	ENERGY ECONOMICS	3.0
EBGN340	ENERGY AND ENVIRONMENTAL POLICY	3.0
EBGN434	PROPERTY RIGHTS AND NATURAL RESOURCES	3.0
EBGN435	ECONOMICS OF WATER RESOURCES	3.0
EBGN470	ENVIRONMENTAL ECONOMICS	3.0

Engineering, Design, and Society Courses (EDNS)

EDNS315	ENGINEERING FOR SOCIAL AND ENVIRONMENTAL RESPONSIBILITY	3.0
EDNS430	CORPORATE SOCIAL RESPONSIBILITY	3.0
EDNS477	ENGINEERING AND SUSTAINABLE COMMUNITY DEVELOPMENT	3.0
EDNS478	ENGINEERING AND SOCIAL JUSTICE	3.0

Oceanography Courses (GEOC)

GEOC407	ATMOSPHERE, WEATHER AND CLIMATE	3.0
GEOC408	INTRODUCTION TO OCEANOGRAPHY	3.0

Petroleum Engineering Courses (PEGN)

PEGN430	ENVIRONMENTAL LAW AND SUSTAINABILITY	3.0
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Restricted environmental science and engineering electives: Choose One

CBEN469	FUEL CELL SCIENCE AND TECHNOLOGY	3.0
CEEN301	FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING: WATER	3.0
CEEN302	FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING: AIR AND WASTE MANAGEMENT	3.0
CEEN303	ENVIRONMENTAL ENGINEERING LABORATORY	3.0

CEEN381	HYDROLOGY AND WATER RESOURCES ENGINEERING	
CEEN401	LIFE CYCLE ASSESSMENT	3.0
CEEN460	MOLECULAR MICROBIAL ECOLOGY AND THE ENVIRONMENT	3.0
CEEN461	FUNDAMENTALS OF ECOLOGY	3.0
CEEN472	ONSITE WATER RECLAMATION AND REUSE	3.0
CEEN475	HAZARDOUS SITE REMEDIATION ENGINEERING	3.0
CEEN480	CHEMICAL FATE AND TRANSPORT IN THE ENVIRONMENT	3.0
CEEN482	HYDROLOGY AND WATER RESOURCES LABORATORY	3.0
CEEN492	ENVIRONMENTAL LAW	3.0
ENGY320	INTRO TO RENEWABLE ENERGY	3.0
ENGY340	NUCLEAR ENERGY	3.0
PHGN419	PRINCIPLES OF SOLAR ENERGY SYSTEMS	3.0

PRIMARY CONTACT

Humanities, Arts, and Social Sciences Department

<https://hass.mines.edu/>