Twin Cities Campus

Biology, Society, and Environment B.A.

Geography, Environment, Society

College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2022
- Required credits to graduate with this degree: 120
- Required credits within the major: 63 to 79
- Degree: Bachelor of Arts

The Biology, Society, and Environment program (BSE), housed in the Department of Geography, Environment, and Society, is a multidisciplinary biology program in the College of Liberal Arts (CLA). The BSE major is built on the idea that problems of biology, health, and the environment emerge at the intersection of natural and human systems. To understand these problems and their solutions, and to build skill sets to address them requires that students have experience in the biological and natural sciences as well as in the social sciences and humanities.

The BSE degree provides a flexible curriculum that allows students to focus the degree to fit their personal, intellectual and professional goals. The BSE degree can prepare students for a wide variety of careers including laboratory science, environmental testing, health and environmental policy, public health, science education, and science communication, as well as a variety of academic and professional graduate programs.

The BSE major is an excellent choice for students interested in pursuing work in the health professions. Students can design their BSE major to provide the foundational science coursework necessary for their choice of M.D., D.D.S., Pharm.D., R.N., O.T., P.T. and PA programs. Medical programs are increasingly looking for students who have an education that includes social sciences and the humanities. BSE includes courses that help students understand the relationship of a diverse society to our medical system and provides students with the opportunity to think about health not just as an attribute of the biology of the body, but also as a complicated outcome of how different bodies relate to economic, cultural, and social systems.

Course work in BSE offers students the opportunity to study scientific practices and social and environmental problems. Just as importantly, students have the opportunity to:
Develop critical thinking skills and creative approaches to understanding such practices and problems using an array of conceptual and theoretical frameworks,
Consider the ethical issues inherent to both practices and problems and, of course, solutions,
Enhance their ability to communicate, particularly through writing,
Work as a team member to bridge disciplinary and institutional divisions,
Develop language skills to help them better engage with their own diverse communities or to open up opportunities for international work.

Research is a regular part of the BSE curriculum, and students are encouraged to work with the BSE adviser to find opportunities to work directly with faculty on their research or to find a faculty member to supervise a research project developed by the student. Independent research can provide students with excellent experience that helps them pursue their career goals.

Navigating the Catalog:
There are a huge number of courses that count for the BSE major. It can be tricky to understand what is available. To see what is available semester by semester, students should look at the BSE course guide published each semester by the BSE advising office. Students can find the course guide on our webpage at z.umn.edu/BSEcourse

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

General Requirements

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the liberal education requirements.Required courses for the major or minor in which a student receives a D grade (with or without plus or minus) do not count toward the major or minor (including transfer courses).

Program Requirements

Students are required to take 4 semester(s) of any second language.

CLA BA degrees require 18 upper division (3xxx-level or higher) credits outside the major designator. These credits must be taken in designators different from the major designator and cannot include courses that are cross-listed with the major designator. The major designator for the Biology, Society, and Environment BA is BSE.

A given course may only count towards one major requirement.

At least 18 upper division credits in the major must be taken at the University of Minnesota - Twin Cities campus.

All incoming CLA first-year (freshmen) must complete the First-Year Experience course sequence.

All incoming CLA first-year (freshmen) students earning a BA, BS, or BIS degree must complete the second-year career management course CLA 3002.

All students must complete a capstone in at least one CLA major. The requirements for double majors completing the capstone in a different CLA major will be clearly stated. Students must also complete all major requirements in both majors to allow the additional capstone to be waived. Student completing an addition degree must complete the capstone in each degree area.

BSE Major Courses: An Introduction to Biology, Society, and the Environment

Course should be taken within one semester of declaring the major or prior to completing 90 credits.
Take exactly 1 course(s) totaling exactly 2 credit(s) from the following:
- BSE 2001 - An Introduction to Biology, Society, and Environment (2.0 cr)
- BSE 2001H - Introduction to Biology, Society, and Environment - Honors (2.0 cr)

Science and Math Courses

Take 8 or more course(s) totaling 22 - 23 credit(s) from the following:

Chemistry Sequence

Chemistry

Take exactly 5 course(s) totaling exactly 11 credit(s) from the following:
- CHEM 1061 - Chemical Principles I [PHYS] (3.0 cr)
- CHEM 1062 - Chemical Principles II [PHYS] (3.0 cr)
- CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
- CHEM 1066 - Chemical Principles II Laboratory [PHYS] (1.0 cr)
- CHEM 2301 - Organic Chemistry I (3.0 cr)

or **Chemistry for the Life Sciences**

Take exactly 5 course(s) totaling exactly 11 credit(s) from the following:
- CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
- CHEM 1081 - Chemistry for the Life Sciences I [PHYS] (3.0 cr)
- CHEM 1082 - Chemistry for the Life Sciences II (3.0 cr)
- CHEM 1086 - Chemistry for the Life Sciences II Laboratory (1.0 cr)
- CHEM 2081 - Chemistry for the Life Sciences III (3.0 cr)

or **Honors Chemistry**

Take exactly 5 course(s) totaling exactly 11 credit(s) from the following:
- CHEM 1071H - Honors Chemistry I [PHYS] (3.0 cr)
- CHEM 1072H - Honors Chemistry II [PHYS] (3.0 cr)
- CHEM 1075H - Honors Chemistry I Laboratory [PHYS] (1.0 cr)
- CHEM 1076H - Honors Chemistry II Laboratory [PHYS] (1.0 cr)
- CHEM 2331H - Honors Elementary Organic Chemistry I (3.0 cr)

•Biochemistry

Take exactly 1 course(s) totaling exactly 3 credit(s) from the following:
- BIOC 3021 - Biochemistry (3.0 cr)

•Calculus

Take exactly 1 course(s) totaling exactly 4 credit(s) from the following:
- MATH 1142 - Short Calculus [MATH] (4.0 cr)
- MATH 1271 - Calculus I [MATH] (4.0 cr)
- MATH 1571H - Honors Calculus I [MATH] (4.0 cr)

•Physics

Take exactly 1 course(s) totaling exactly 4 credit(s) from the following:
- PHYS 1101W - Introductory College Physics I [PHYS, WI] (4.0 cr)
- PHYS 1107 - Introductory Physics Online I [PHYS] (4.0 cr)
- PHYS 1221 - Introductory Physics for Life Science Majors I [PHYS] (4.0 cr)
- PHYS 1301W - Introductory Physics for Science and Engineering I [PHYS, WI] (4.0 cr)

•PHYS 1401V - Honors Physics I [PHYS, WI] (4.0 cr)

Bioscience Courses
Take exactly 6 course(s) totaling 17 - 26 credit(s) from the following:
General Biology
Take exactly 1 course(s) totaling exactly 4 credit(s) from the following:
•BIOL 1009 - General Biology [BIOL] (4.0 cr)
•BIOL 1009H - Honors: General Biology [BIOL] (4.0 cr)
•Bioscience Core
Take 2 - 4 course(s) totaling 6 - 13 credit(s) from the following:
•EEB 3409 - Evolution (3.0 cr)
•EEB 3407 - Ecology (3.0 cr)
or EEB 3408W - Ecology [WI] (4.0 cr)
or EEB 3807 - Ecology (4.0 cr)
•GCD 3022 - Genetics (3.0 cr)
or BIOL 4003 - Genetics (3.0 cr)
•GCD 3033 - Principles of Cell Biology (3.0 cr)
or BIOL 4004 - Cell Biology (3.0 cr)
•Bioscience Laboratory
Take 1 - 3 course(s) totaling 3 - 15 credit(s) from the following:
•ANTH 1001 - Human Evolution [BIOL] (4.0 cr)
•EEB 4068 - Plant Physiological Ecology (3.0 cr)
•GEOG 3839 - Introduction to Dendrochronology (4.0 cr)
•NSCI 4105 - Neurobiology Laboratory I (3.0 cr)
•PHSL 3051 - Human Physiology (4.0 cr)
•PMB 2022 - General Botany (3.0 cr)
•SOIL 2125 - Basic Soil Science [PHYS, ENV] (4.0 cr)
•GEOG 3421 - Climatology (4.0 cr)
ANAT 3001 - Human Anatomy (3.0 cr)
or ANAT 3601 - Principles of Human Anatomy (3.0 cr)
or ANAT 3611 - Principles of Human Anatomy (3.0 cr)
with ANAT 3602 - Principles of Human Anatomy Laboratory (2.0 cr)
or ANAT 3608H - Principles of Human Anatomy Laboratory for Honors Students (3.0 cr)
or ANAT 3612 - Principles of Human Anatomy Laboratory (2.0 cr)
•ANSC 3301 - Human and Animal Physiology (3.0 cr)
with ANSC 3302 - Human and Animal Physiology Laboratory (1.0 cr)
•BIOL 3211 - Physiology of Humans and Other Animals (3.0 cr)
with BIOL 2005 - Animal Diversity Laboratory (2.0 cr)
or BIOL 2007 - Marine Animal Diversity Laboratory (1.0 cr)
•MICB 3301 - Biology of Microorganisms (5.0 cr)
or VBS 2032 - General Microbiology With Laboratory (5.0 cr)
•PMB 3002 - Plant Biology: Function (2.0 cr)
PMB 3005W - Plant Function Laboratory [WI] (2.0 cr)
•Bioscience Electives
Take 0 - 2 course(s) totaling 0 - 9 credit(s) from the following:
Organic Chemistry
Take 0 or more course(s) from the following:
•CHEM 2302 - Organic Chemistry II (3.0 cr)
or CHEM 2332H - Honors Elementary Organic Chemistry II (3.0 cr)
•CHEM 2311 - Organic Lab (4.0 cr)
or CHEM 2312H - Honors Organic Lab (5.0 cr)
•Neurobiology
Take 0 or more course(s) from the following:
•NSCI 3101 - Neurobiology I: Molecules, Cells, and Systems (3.0 cr)
•NSCI 3102W - Neurobiology II: Perception and Behavior [WI] (3.0 cr)
•NSCI 4101 - Development of the Nervous System: Cellular and Molecular Mechanisms (3.0 cr)
•Human and Animal Behavior
Take 0 or more course(s) from the following:
•ANTH 3002 - Sex, Evolution, and Behavior: Examining Human Evolutionary Biology (4.0 cr)
or EEB 3002 - Sex, Evolution, and Behavior: Examining Human Evolutionary Biology (4.0 cr)
•ANTH 4329 - Primate Ecology and Social Behavior (3.0 cr)
or EEB 4329 - Primate Ecology and Social Behavior (3.0 cr)
•EEB 3411 - Introduction to Animal Behavior (3.0 cr)
or EEB 3412W - Introduction to Animal Behavior, Writing Intensive [WI] (4.0 cr)
or EEB 3811W - Animal Behavior in the Field [WI] (4.0 cr)
•Organismal Biology

Take 0 or more course(s) from the following:
- EEB 4129 - Mammalogy (4.0 cr)
- ENT 4021 - Honey Bees and Insect Societies (3.0 cr)
- FW 4401 - Fish Physiology and Behavior (3.0 cr)
- PHSL 3061 - Principles of Physiology (4.0 cr)
- PMB 4321 - Minnesota Flora (3.0 cr)
- PMB 4511 - Flowering Plant Diversity (3.0 cr)
- ANTH 3405 - Human Skeletal Analysis (4.0 cr)

or ANTH 5405 - Human Skeletal Analysis (4.0 cr)

- **Health and the Environment**

Take 0 or more course(s) from the following:
- AHS 3002 - Global Health in Thailand - Humans, Elephants, and Disease [GP] (3.0 cr)
- ENT 3275 - Insect-transmitted diseases of humans (3.0 cr)
- VMED 5181 - Spatial Analysis in Infectious Disease Epidemiology (3.0 cr)
- EEB 3851W - Health and Biodiversity [ENV, WI] (3.0 cr)
- CFAN 3334 - Parasites and Pestilence [GP] (3.0 cr)

- **Climate and Environmental Systems**

Take 0 or more course(s) from the following:
- EEB 3603 - Science, Protection, and Management of Aquatic Environments (3.0 cr)
- EEB 4611 - Biogeochemical Processes (3.0 cr)
- ESPM 3777 - Climate Change- Physics, Myths, Mysteries, and Uncertainties (3.0 cr)
- GEOG 3401W - Geography of Environmental Systems and Global Change [ENV, WI] (3.0 cr)
- GEOG 3423 - Urban Climatology (3.0 cr)
- GEOG 5426 - Climatic Variations (3.0 cr)
- ESCI 3002 - Climate Change and Human History [ENV] (3.0 cr)

or ESCI 5102 - Climate Change and Human History (3.0 cr)

- **Ecological Systems**

Take 0 or more course(s) from the following:
- BIOL 4590 - Coral Reef Ecology (2.0 cr)
- EEB 4609W - Ecosystem Ecology [ENV, WI] (3.0 cr)
- ENT 4251 - Forest and Shade Tree Entomology (3.0 cr)
- ESPM 3108 - Ecology of Managed Systems [ENV] (3.0 cr)
- ESPM 3221 - Soil Conservation and Land-Use Management (3.0 cr)
- ESPM 3575 - Wetlands (3.0 cr)
- ESPM 3612W - Soil and Environmental Biology [WI] (4.0 cr)
- FNRM 3104 - Forest Ecology (4.0 cr)
- FNRM 3203 - Forest Fire and Disturbance Ecology (3.0 cr)
- GEOG 3431 - Plant and Animal Geography (3.0 cr)

- **Genetics**

Take 0 or more course(s) from the following:
- GCD 3485 - Bioinformatic Analysis: Introduction to the Computational Characterization of Genes and Proteins (4.0 cr)
- GCD 4111 - Histology: Cell and Tissue Organization (4.0 cr)
- GCD 4143 - Human Genetics and Genomics (3.0 cr)
- GCD 4161 - Developmental Biology (3.0 cr)

- **Microbial Biology**

Take 0 or more course(s) from the following:
- ESCI 4801 - Geomicrobiology (3.0 cr)
- MICB 4161W - Eukaryotic Microbiology [WI] (3.0 cr)
- MICB 4215 - Advanced Laboratory: Microbial Physiology and Diversity (3.0 cr)
- PMB 4111 - Microbial Physiology and Diversity (3.0 cr)
- PMB 4121 - Microbial Ecology and Applied Microbiology (3.0 cr)
- MICB 4131 - Immunology (3.0 cr)

or VPM 4131 - Immunology (3.0 cr)

Science and Society Courses

Students may receive credit for no more than four courses in any given designator.

Take 7 or more course(s) totaling 21 - 27 credit(s) from the following:

Foundational Courses

Take exactly 1 course(s) totaling 3 - 4 credit(s) from the following:
- GEOG 1301W - Our Globalizing World [SOCS, GP, WI] (3.0 cr)
- PHIL 1002W - Introduction to Philosophy [AH, WI] (4.0 cr)
- PHIL 1003W - Introduction to Ethics [CIV, WI] (4.0 cr)
- PHIL 1005 - Scientific Reasoning (4.0 cr)
- PHIL 1026W - Philosophy and Cultural Diversity [AH, DSJ, WI] (3.0 cr)
- ANTH 1003W - Understanding Cultures [SOCS, GP, WI] (4.0 cr)

or ANTH 1003V - Understanding Cultures: Honors [SOCS, GP, WI] (4.0 cr)

- SOC 1001 - Introduction to Sociology [SOCS, DSJ] (4.0 cr)
  or SOC 1011V - Honors: Introduction to Sociology [SOCS, DSJ, WI] (4.0 cr)

•Methods Courses

Take exactly 1 course(s) totaling 3 - 4 credit(s) from the following:

Quantitative Methods

Take 0 or more course(s) from the following:

- EPSY 3264 - Basic and Applied Statistics [MATH] (3.0 cr)
- SOC 3811 - Social Statistics [MATH] (4.0 cr)
- STAT 3011 - Introduction to Statistical Analysis [MATH] (4.0 cr)
  or STAT 3021 - Introduction to Probability and Statistics (3.0 cr)
- PSY 3801 - Introduction to Psychological Measurement and Data Analysis [MATH] (4.0 cr)
  or PSY 3801H - Honors Introduction to Psychological Measurement and Data Analysis [MATH] (4.0 cr)

•Qualitative Methods

Take 0 or more course(s) from the following:

- ANTH 4035 - Ethnographic Research Methods (3.0 cr)
- SOC 3801 - Sociological Research Methods (4.0 cr)
- PSY 3001W - Introduction to Research Methods [WI] (4.0 cr)
  or PSY 3001V - Honors Introduction to Research Methods [WI] (4.0 cr)

•Spatial Methods

- GEOG 3561 - Principles of Geographic Information Science (4.0 cr)
  or GEOG 5561 - Principles of Geographic Information Science (4.0 cr)

•Historical Methods

Take 0 or more course(s) from the following:

- HMED 3002W - Health Care in History II [HIS, WI] (4.0 cr)
- HMED 3040 - Human Health, Disease, and the Environment in History [HIS] (3.0 cr)
- HMED 3075 - Technology and Medicine in Modern America [HIS, TS] (3.0 cr)
- HSCI 3244 - Nature's History: Science, Humans, and the Environment [HIS, ENV] (3.0 cr)
- HSCI 5244 - Nature's History: Science, Humans, and the Environment (3.0 cr)

•Science and Society Core Courses

Take 2 or more course(s) totaling 6 or more credit(s) from the following:

- ANTH 3306W - Medical Anthropology [GP, WI] (3.0 cr)
- CSCL 3323 - Science and Culture [AH] (3.0 cr)
- GEOG 3376 - Political Ecology [ENV] (3.0 cr)
- GEOG 3381W - Population in an Interacting World [SOCS, GP, WI] (3.0 cr)
- GEOG 3411W - Geography of Health and Health Care [WI] (3.0 cr)
- GLOS 3305 - Science for Sale: Environment, Capital, and Medicine (3.0 cr)
- PHIL 3601W - Scientific Thought [WI] (4.0 cr)
- PHIL 4607 - Philosophy of the Biological Sciences (3.0 cr)
- SOC 4246 - Sociology of Health and Illness (3.0 cr)
- SOC 4305 - Environment & Society: An Enduring Conflict [ENV] (3.0 cr)
- GEOG 3379 - Environment and Development in the Third World [SOCS, ENV] (3.0 cr)
  or GLOS 3303 *{Inactive}*[SOCS, ENV] (3.0 cr)
- PHIL 3302W - Moral Problems of Contemporary Society [CIV, WI] (4.0 cr)
  or PHIL 3322W - Moral Problems of Contemporary Society [CIV, WI] (3.0 cr)

•Electives

Take 0 - 3 course(s) totaling 0 - 12 credit(s) from the following:

Social Science and Humanities Perspective on Health and Medicine

Take 0 or more course(s) from the following:

- ANTH 3035 - Anthropologies of Death [SOCS, GP] (3.0 cr)
- ANTH 3036 - The Body in Society (3.0 cr)
- ANTH 4075 - Cultural Histories of Healing [SOCS, GP] (3.0 cr)
- CSCL 3351W - The Body and the Politics of Representation [HIS, WI] (3.0 cr)
- POL 3317 *{Inactive}*[SOCS] (3.0 cr)
- PUBH 3102 - Issues in Environmental and Occupational Health (3.0 cr)
- SOC 3241 - Sociology of Women's Health: Experiences from Around the World (3.0 cr)
- SOC 3246 - Diseases, Disasters & Other Killers [HIS, ENV] (3.0 cr)
- SOC 3446 - Comparing Healthcare Systems [GP] (3.0 cr)
- SOC 4246 - Sociology of Health and Illness (3.0 cr)
- GLOS 3613W - Stuffed and Starved: The Politics of Eating [SOCS, GP, WI] (3.0 cr)
  or GLOS 3613V *{Inactive}*[SOCS, GP, WI] (3.0 cr)
  or SOC 3613W - Stuffed and Starved: The Politics of Eating [SOCS, GP, WI] (3.0 cr)
  or SOC 3613V *{Inactive}*[SOCS, GP, WI] (3.0 cr)

•Social Science and Humanities Perspective on the Environment

Take 0 or more course(s) from the following:

- ANTH 4069 - Historical Ecology & Anthropology of the Environment (3.0 cr)
- ARTS 3206W - Art + Ecology [WI] (4.0 cr)

•CSCL 3322 - Visions of Nature: The Natural World and Political Thought [ENV] (3.0 cr)
•ESPM 3241W - Natural Resource and Environmental Policy [SOCS, CIV, WI] (3.0 cr)
•GEOG 3388 - Going Places: Geographies of Travel and Tourism [CIV] (3.0 cr)
•SUST 3003 - Sustainable People, Sustainable Planet [ENV] (3.0 cr)
•URBS 3751 - Understanding the Urban Environment [ENV] (3.0 cr)
•GLOS 4311 - Power, Justice & the Environment [DSJ] (3.0 cr)
or SOC 4311 - Power, Justice & the Environment [DSJ] (3.0 cr)

•Philosophy of Science, Scientific Thought and Practice
Take 0 or more course(s) from the following:
•PHIL 3305 - Medical Ethics (4.0 cr)
•PHIL 3301 - Environmental Ethics [ENV] (4.0 cr)
•PHIL 3605 - Disease, Diagnosis, and Intervention: Conceptual Issues in Medicine (3.0 cr)
•PHIL 3607 - Philosophy of Psychology (4.0 cr)
•PHIL 4607 - Philosophy of the Biological Sciences (3.0 cr)
•POL 4317 *{Inactive}*(3.0 cr)

•Historical Perspectives on Health and the Environment
Take 0 or more course(s) from the following:
•HIST 3417W - Food in History [HIS, ENV, WI] (3.0 cr)
•HMED 3001W - Health, Disease, and Healing I [HIS, WI] (4.0 cr)
•HMED 3002W - Health Care in History II [HIS, WI] (4.0 cr)
•HMED 3040 - Human Health, Disease, and the Environment in History [HIS] (3.0 cr)
•HMED 3055 - Women, Health, and History [HIS, DSJ] (3.0 cr)
•HMED 3075 - Technology and Medicine in Modern America [HIS, TS] (3.0 cr)
•HSCI 3332 - Science in the Shaping of America [HIS, DSJ] (3.0 cr)
•HSCI 3815 - Making Modern Science: Atoms, Genes and Quanta [HIS, GP] (3.0 - 4.0 cr)
•HSCI 4455 - Women, Gender, and Science [HIS, DSJ] (3.0 cr)
•HIST 3514W - Water and Oil: An Environmental History of the Middle East [HIS, ENV, WI] (3.0 cr)
•HSCI 3211 - Biology and Culture in the 19th and 20th Centuries [HIS, CIV] (3.0 cr)
or HSCI 5211 - Biology and Culture in the 19th and 20th Centuries [CIV] (3.0 cr)
•HSCI 3242 - Navigating a Darwinian World [HIS] (3.0 cr)
or HSCI 5242 - Navigating a Darwinian World (3.0 cr)
•HSCI 3244 - Nature's History: Science, Humans, and the Environment [HIS, ENV] (3.0 cr)
or HSCI 5244 - Nature's History: Science, Humans, and the Environment (3.0 cr)
•HSCI 3331 - Technology and American Culture [HIS, TS] (3.0 cr)
or HSCI 5331 - Technology and American Culture (3.0 cr)
•HSCI 3401 - Ethics in Science and Technology [HIS, CIV] (3.0 cr)
or HSCI 5401 - Ethics in Science and Technology (3.0 cr)

•Health and Environmental Inequalities through Diversity
Take 0 or more course(s) from the following:
•GWSS 3203W - Blood, Bodies and Science [TS, SOCS, WI] (3.0 cr)
•GWSS 3215 - Bodies That Matter: Feminist Approaches to Disability Studies [DSJ] (3.0 cr)
•AAS 3251W - Sociological Perspectives on Race, Class, and Gender [SOCS, DSJ, WI] (3.0 cr)
or AFRO 3251W - Sociological Perspectives on Race, Class, and Gender [WI] (3.0 cr)
or SOC 3251W - Sociological Perspectives on Race, Class, and Gender [SOCS, DSJ, WI] (3.0 cr)
•AAS 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans & Chicanos in the U.S. (3.0 cr)
or AFRO 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans & Chicanos in the U.S. (3.0 cr)
or AMIN 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans, & Chicanos in the U.S. (3.0 cr)
or CHIC 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans & Chicanos in the U.S. (3.0 cr)
•CSCL 3350W - Sexuality and Culture [DSJ, WI] (3.0 cr)
or GLBT 3456W - Sexuality and Culture [DSJ, WI] (3.0 cr)
•GWSS 3002W - Gender, Race, and Class in the U.S. [DSJ, WI] (3.0 cr)
or GWSS 3002V - Honors: Gender, Race and Class in the U.S. [DSJ, WI] (3.0 cr)

•Psychology
Take 0 or more course(s) from the following:
•NURS 2001 - Human Growth and Development: A Life Span Approach (3.0 cr)
•PSY 3061 - Introduction to Biological Psychology (3.0 cr)
•PSY 3206 - Introduction to Health Psychology (3.0 cr)
•PSY 3604 - Introduction to Psychopathology (3.0 cr)
•PSY 3135 - Introduction to Individual Differences (3.0 cr)
or PSY 5135 - Psychology of Individual Differences (3.0 cr)

•Science, Health, & Environmental Communication
Take 0 or more course(s) from the following:
•COMM 4251 - Environmental Communication [ENV] (3.0 cr)
•ENGL 3501 - Public Discourse: Coming to Terms with the Environment [LITR, ENV] (3.0 cr)
•ENGL 3502 - Nature Stories: Environmental Discourse in Action [LITR, CIV] (4.0 cr)
•JOUR 3757 - Principles of Health Communication Strategy (3.0 cr)

- JOUR 5541 - Mass Communication and Public Health (3.0 cr)
- SPAN 3404 - Medical Spanish and Community Health Learning (3.0 cr)
- WRIT 3152W - Writing on Issues of Science and Technology [WI] (3.0 cr)
- WRIT 3315 - Writing on Issues of Land and the Environment [AH, DSJ] (3.0 cr)
- WRIT 4431W - Science, Technology, and the Law [CIV, WI] (3.0 cr)
- SPAN 3044 - Advanced Medical Spanish (4.0 cr)
- WRIT 3405W - Humanistic Healthcare and Communication [AH, WI] (3.0 cr)

•Theory and Practice

Take 0 or more course(s) from the following:

Students must choose Public Health or Sustainability and the Environment Track

- MSID 4001 - International Development: Critical Perspectives on Theory and Practice (4.0 cr)

•Grand Challenge Courses

Take 0 or more course(s) from the following:

- GCC 3003 - Seeking Solutions to Global Health Issues [GP] (3.0 cr)
- GCC 3013 - Making Sense of Climate Change - Science, Art, and Agency [CIV] (3.0 cr)
- GCC 3016 - Science and Society: Working Together to Avoid the Antibiotic Resistance Apocalypse [TS] (3.0 cr)
- GCC 3025 - Seeking the Good Life at the End of the World: Sustainability in the 21st Century [CIV] (3.0 cr)
- GCC 3032 - Ecosystem Health: Leadership at the Intersection of Humans, Animals, and the Environment [ENV] (3.0 cr)
- GCC 3007 - Toward Conquest of Disease [ENV] (3.0 cr)

Capstone

Capstone registration is restricted to Senior BSE majors. Students who double major and choose to complete the capstone requirement in their other major are still required to take the Biology, Society, and Environment BA capstone.

Take exactly 1 course(s) totaling exactly 1 credit(s) from the following:

- BSE 3991 - Biology, Society and Environment Capstone (1.0 cr)
- BSE 3991H - BSE Capstone Honors (1.0 cr)

Upper Division Writing Intensive within the major

Students are required to take one upper division writing intensive course within the major. If that requirement has not been satisfied within the core major requirements, students must choose one course from the following list. Some of these courses may also fulfill other major requirements. BSE majors are also encouraged to take at least one additional writing intensive course in an area related to biosciences. Honors students must complete a course from this list.

Take 0 - 1 course(s) from the following:

- ANTH 3306W - Medical Anthropology [GP, WI] (3.0 cr)
- ANTH 4994W - Directed Research [WI] (1.0 - 6.0 cr)
- CSCL 3351W - The Body and the Politics of Representation [HIS, WI] (3.0 cr)
- EEB 3408W - Ecology [WI] (4.0 cr)
- EEB 3412W - Introduction to Animal Behavior, Writing Intensive [WI] (4.0 cr)
- EEB 3851W - Health and Biodiversity [ENV, WI] (3.0 cr)
- EEB 4609W - Ecosystem Ecology [ENV, WI] (3.0 cr)
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