ENVIRONMENTAL & SUSTAINABILITY STUDIES (CAS)

Description

Website: esp.unl.edu (http://esp.unl.edu)

The environmental and sustainability studies major is designed for students who want to make a difference and contribute to solving environmental challenges on a local to global scale. Solutions to challenges such as climate change, pollution, and resource conservation require individuals who have a broad-based knowledge in the natural and social sciences, as well as strength in a specific discipline. The environmental studies major will provide the knowledge and skills needed for students to work across disciplines and to be competitive in the job market. The environmental and sustainability studies program uses a holistic approach and a framework of sustainability. This framework recognizes the necessity of meeting current resource needs without compromising the environment or the ability of future generations to meet their needs.

Options in the Major

Students may choose to focus their advanced coursework in ways that meet their specific interests and career goals. All students complete a core set of requirements and can determine in consultation with faculty and their academic advisor which specific option to follow. The option will be documented on the final transcript.

Policy, Advocacy, and Social Justice Option

Within the context of the environment, this option provides disciplinary knowledge and proficiency as well as social research skills related to negotiation, advocacy, and discourse; human behavior change; public policy; and social justice and diversity.

Biosphere and Earth Systems Studies Option

Within the context of the environment, this option provides disciplinary knowledge and proficiency in the collection, synthesis, and interpretation of information/data in one of four science-based subdiscipline areas—Earth Systems, Climate, Ecological Systems, and Geospatial technologies.

Additional minor program opportunities: Students interested in environmental and sustainability studies may choose to minor in it through the College of Arts and Sciences or through the environmental education minor or sustainability solutions minor in the College of Agricultural Sciences and Natural Resources, both of which are available to CAS students.

Learning Outcomes

Graduates with a major in environmental and sustainability studies will:

1. Explain and apply appropriately the systemic principle of sustainability for the development of solutions to environmental and natural resource issues.
2. Organize, plan, and satisfactorily complete a senior project through scholarly creativity and/or in-depth research that uses appropriate technical knowledge, field, laboratory, geospatial, and/or social science research methodologies.
3. Demonstrate the ability to critically assess environmental and sustainability issues from the local to global scale considering a range of perspectives.
4. Identify, explain, and evaluate problems/questions/issues using relevant data, resources, and reasoning to form carefully considered conclusions.
5. Communicate effectively to a range of audiences through the preparation of written documents along with oral and visual presentations that are consistent with professional standards.
6. Describe Earth's four major spheres: land, water, living things, and air; their variability over space and time; and the extent to which humans influence them.
7. Effectively work in teams and groups from various backgrounds and perspectives to address environmental challenges.
8. Demonstrate improvement in professional and interpersonal skills such as collaboration, critical thinking, problem solving, empathy, and teamwork to effectively operate in society and the professional world.

Graduates with the policy, advocacy and social justice option will also be able to:

1. Assess policies in the context of environmental and sustainability issues.
2. Evaluate the extent to which solutions to environmental problems are equitable and environmentally just.

Graduates with the biosphere and earth systems studies option will also be able to:

1. Apply a systems approach to describe the relationships among Earth's four major spheres: land, water, living things, and air.
2. Demonstrate knowledge of how the relationships among spheres are shaped by physical, geological, and biological processes, variability across space and time, and the extent to which humans influence them.

Academic and Career Advising

Academic and Career Advising Center

Not sure where to go or who to ask? The Advising Center team in 107 Oldfather Hall can help. The Academic and Career Advising Center is the undergraduate hub for CAS students in all majors. Centrally located and easily accessed, students encounter friendly, knowledgeable people who are eager to help or connect students to partner resources. Students also visit the Advising Center in 107 Oldfather Hall to:

- Choose or change their major, minor, or degree program.
- Check on policies, procedures, and deadlines.
- Get a college approval signature from the Dean's representatives.

CAS Career Coaches are available by appointment (in-person or Zoom) and located in the CAS Academic and Career Advising Center, 107 Oldfather Hall. They help students explore majors and minors, gain experience, and develop a plan for life after graduation.

Assigned Academic Advisors

Academic advisors are critical resources dedicated to students' academic, personal, and professional success. Every CAS student is assigned an academic advisor based on their primary major. Since most

CAS students have more than just a single major, it is important to get to know the advisor for any minors or additional majors. Academic advisors work closely with the faculty to provide the best overall support and the discipline specific expertise. They are available for appointments (in-person or Zoom) and through weekly virtual drop-ins. Assigned advisors are listed in MyRED (https://its.unl.edu/myunl/) and their offices may be located in or near the department of the major for which they advise.

Students who have declared a pre-health or pre-law area of interest will also work with advisors in the Exploratory and Pre-Professional Advising Center (Explore Center) in 127 Love South, who are specially trained to guide students preparing to enter a professional school.

For complete and current information on advisors for majors, minors, or pre-professional areas, visit https://cas.unl.edu/major-advisors (https://cas.unl.edu/major-advisors/), or connect with the Arts and Sciences Academic and Career Advising Center, 107 Oldfather Hall, 402-472-4190, casadvising@unl.edu.

Career Coaching

The College believes that **Academics + Experience = Opportunities** and encourages students to complement their academic preparation with real-world experience, including internships, research, education abroad, service, and leadership. Arts and sciences students have access to a powerful network of faculty, staff, and advisors dedicated to providing information and support for their goals of meaningful employment or advanced education. Arts and sciences graduates have unlimited career possibilities and carry with them important career competencies—communication, critical thinking, creativity, context, and collaboration. They have the skills and adaptability that employers universally value. Graduates are prepared to effectively contribute professionally and personally with a solid foundation to excel in an increasingly global, technological, and interdisciplinary world.

Students should contact the career coaches in the Arts and Sciences Academic and Career Advising Center in 107 Oldfather Hall, or their assigned advisor, for more information. The CAS career coaches help students explore career options, identify ways to build experience and prepare to apply for internships, jobs, or graduate school, including help with resumes, applications, and interviewing.

ACE Requirements

Students must complete one course for each of the ACE Student Learning Outcomes below. Certified course choices are published in the degree audit, or visit the ACE (http://ace.unl.edu) website (http://ace.unl.edu) for the most current list of certified courses.

ACE Student Learning Outcomes
ACE 1: Write texts, in various forms, with an identified purpose, that respond to specific audience needs, integrate research or existing knowledge, and use applicable documentation and appropriate conventions of format and structure.
ACE 2: Demonstrate competence in communication skills.
ACE 3: Use mathematical, computational, statistical, logical, or other formal reasoning to solve problems, draw inferences, justify conclusions, and determine reasonableness.
ACE 4: Use scientific methods and knowledge to pose questions, frame hypotheses, interpret data, and evaluate whether conclusions about the natural and physical world are reasonable.
ACE 5: Use knowledge, historical perspectives, analysis, interpretation, critical evaluation, and the standards of evidence appropriate to the humanities to address problems and issues.
ACE 6: Use knowledge, theories, and research perspectives such as statistical methods or observational accounts appropriate to the social sciences to understand and evaluate social systems or human behaviors.
ACE 7: Use knowledge, theories, or methods appropriate to the arts to understand their context and significance.
ACE 8: Use knowledge, theories, and analysis to explain ethical principles and their importance in society.
ACE 9: Exhibit global awareness or knowledge of human diversity through analysis of an issue.
ACE 10: Generate a creative or scholarly product that requires broad knowledge, appropriate technical proficiency, information collection, synthesis, interpretation, presentation, and reflection.

College Degree Requirements

College Distribution Requirements

The College of Arts and Sciences distribution requirements are designed to ensure a range of courses across disciplines within the College. Students develop the ability to learn in a variety of ways and apply their knowledge from a variety of perspectives. All requirements are in addition to University ACE requirements, and no course can be used to fulfill both an ACE outcome and a College Distribution Requirement.

- A student may not use a single course to satisfy more than one College Distribution Requirement, with the exception of CDR Diversity. Courses used to meet CDR Diversity may also meet CDR Writing, CDR Humanities, or CDR Social Science.
- Internship (395 or 495), independent study or readings (396 or 496), research (398 or 498), and thesis (399, 399H, 499, or 499H) will not satisfy distribution requirements.
- Other courses with a 9 in the middle number (ex. PSYC 292) will not satisfy distribution requirements unless approved by an advisor.
- Cross-listed courses from interdisciplinary programs will be applied in the same area as courses from the lead department.

CDR: Written Communication	
Select from courses approved for ACE outcome 1.	
CDR: Natural, Physical, and Mathematical Sciences [1]	
Select a course from ASTR, BIOS, CHEM, GEOL, LIFE, METR, MATH, PHYS, or ANTH 242, GEOG 155, GEOG 281, POLS 250, or PSYC 273.	
CDR: Laboratory [2]	
Laboratory courses may be embedded in a 4-5 credit course used in CDR Natural, Physical, and Mathematical Science (example GEOG 155), or stand alone (example LIFE 120L).	
CDR: Humanities [3]	
Select a course from ARAB, CHIN, CLAS, CZEC, ENGL, FILM, FREN, GERM, GREK, HIST, JAPN, LATN, PHIL, RELG, RUSS, or SPAN.	

CDR: Social Science [4]

Select a course from ANTH, COMM, GEOG, NSST, POLS, PSYC, or SOCI.

CDR: Human Diversity in U.S. Communities

Select from the following approved courses also listed in your degree audit: ANTH 130, ANTH 412, ANTH 447, ANTH 473, ARAB/RELG 313, COMM 311, COMM 315, COMM/ETHN 335, COMM 364, COMM/ETHN 365, COMM 465, ENGL/WMNS 212, ENGL/ETHN 245N, ENGL/WMNS 312, ENGL/ETHN 345D, ENGL/ETHN/WMNS 345N, ENGL/ETHN 346, ENGL 376, ENGL 380, ENGL/ETHN 445, ETHN 100, ETHN 201, ETHN 202, ETHN 204, ETHN 484, FILM/ETHN 344, GEOG 271, GEOG 403, GLST/ANTH/MODL 214, GLST 350, HIST/ETHN/WMNS 115, HIST/ETHN 234, HIST/ETHN 246, HIST 251, HIST/ETHN 340, HIST 351/ETHN 341, HIST/ETHN/WMNS 356, HIST/ETHN 357, HIST/WMNS 402, HRHA 350, MODL 260, PHIL 105, PHIL 106, PHIL/WMNS 218, PHIL 323, PHIL 325, POLS/ETHN 333, POLS/WMNS 338, POLS 340, POLS 347, POLS 433, PSYC/ETHN 310, PSYC 330, PSYC/WMNS 421, PSYC/ETHN 425, RELG/HIST 134, RELG/ETHN/HIST 226, RELG/HIST 227, SOCI 101, SOCI 180, SOCI/WMNS 200, SOCI/ETHN 217, SPAN 206, SPAN 486, WMNS 101, WMNS 201, WMNS 202, WMNS 210

CDR: Language

BA Students [5]

Fulfilled by the completion of the 4th level of a single language (either in H.S. or in college). Language study at UNL is available in: ARAB, CHIN, CZEC, FREN, GERM, GREK, JAPN, LATN, SPAN, or SLPA.

BS Students [6]

Fulfilled by the completion of the 2nd level of a single language (either in H.S. or in college). Language study at UNL is available in: ARAB, CHIN, CZEC, FREN, GERM, GREK, JAPN, LATN, SPAN, or SLPA.

1 *Excluded courses:* BIOC 101, BIOS 100, BIOS 180, CHEM 101, MBIO 101, PHYS 201, MATH 100A, MATH 101, MATH 101P, MATH 102, MATH 103, *and MATH subject area credit at the 100 level or below.*

2 ANTH 242L, ASTR 224, BIOS 101L, BIOS 110L, BIOS 111, BIOS 116, BIOS 213L, BIOS 214, CHEM 105L, CHEM 106L, CHEM 109L, CHEM 110L, CHEM 113L, GEOG 155, GEOL 101, GEOL 103, LIFE 120L, LIFE 121L, METR 100, PHYS 141, PHYS 142, PHYS 153, PHYS 221, *or* PHYS 222.

3 *ARAB, CHIN, CZEC, FREN, GERM, GREK, JAPN, LATN, and SPAN courses must be numbered 300 or above. ENGL courses must be* ENGL 170, ENGL 180, *or ENGL 200 level and above. Excluded courses:* CLAS 116, ENGL 254, ENGL 300, ENGL 354, SPAN 300A, SPAN 303, *and* SPAN 304.

4 *Excluded courses:* ANTH 242/ANTH 242L, GEOG 155, GIST 111, GIST 311, POLS 101, POLS 250, PSYC 100, PSYC 273.

5 ARAB 202, CHIN 202, CZEC 202, FREN 202 *or* FREN 210, GERM 202, GREK 301 *and* GREK 302, JAPN 201 *and* JAPN 202, LATN 301 *and* LATN 302, SPAN 202 *or* SPAN 210 *or* SPAN 300A *or* SLPA 202.

6 ARAB 102, CHIN 102, CZEC 102, FREN 102, GERM 102, GREK 102 *or* GREK 151, JAPN 102, LATN 102, SPAN 102 *or* SPAN 110 *or* SPAN 300A, *or* SLPA 102.

Language Requirement

The University of Nebraska–Lincoln and the College of Arts and Sciences place great value on academic exposure and proficiency in a second language. The University of Nebraska–Lincoln entrance requirement is successful completion of two levels of the same world language, and the College of Arts and Sciences degree requirement (CDR: Language) is proficiency through 4 levels for BA students, or 2 levels for BS students. Levels are defined as years in High School, or semesters in college as documented on an official transcript.

Students who believe they are proficient in a language, but who do not have academic records of that proficiency, should consult with their academic advisor to explore alternative assessments which may include a proficiency examination by a UNL faculty member for languages taught at UNL, or through an approved private service for languages not taught at UNL (expenses for this service would be the student's responsibility.)

Experiential Learning Requirement

All undergraduates in the College of Arts and Sciences must complete an Experiential Learning (EL) designated course. This may include 0-credit courses designed to document co-curricular activities recognized as Experiential Learning. Students should consult their assigned Academic Advisor and Career Coach for assistance identifying experiential learning opportunities relevant to their academic program, interests and goals.

The bachelor of science degree requires students to complete 60 hours in mathematical, physical, and natural sciences from disciplines within the College of Arts and Sciences or required in its majors: ACTS, ASTR, BIOC, BIOS, CHEM, CSCE, GEOL, LIFE, MBIO, METR, MATH, PHYS, STAT or ANTH 242 , ANTH 242L, ANTH 341, ANTH 385, ANTH 386, ANTH 389, ANTH 416, ANTH 422, ANTH 430, ANTH 442, ANTH 443, ANTH 444, ANTH 448, ANTH 473, ANTH 484, ANTH 487D, ENVR 201, GEOG 155, GEOG 217, GEOG 281, GEOG 308, GEOG 317, GEOG 408, GEOG 417, GEOG 418, GEOG 419, GEOG 421, GEOG 422, GEOG 425, GEOG 427, GEOG 432, GEOG 444, GEOG 461, GEOG 467, PHIL 211, POLS 250, PSYC 273, PSYC 368, PSYC 370, PSYC 450, PSYC 451, PSYC 456, PSYC 458,PSYC 460, PSYC 461, PSYC 463, PSYC 464, or PSYC 465.

Excluded courses include: BIOC 101, BIOS 100, BIOS 180, CHEM 101, MATH 100A, MATH 101, MATH 101P, MATH 102, MATH 103, MBIO 101, PHYS 201 as well as any course numbered 395, 495, 399, 399H, 499, or 499H. MATH subject area credit at the 100 level or below is also excluded.

Up to 12 hours of scientific and technical courses offered by other colleges may be accepted toward this requirement with approval of the College of Arts and Sciences. See your assigned academic advisor to start the approval process.

Minimum Hours Required for Graduation

A minimum of 120 semester hours of credit is required for graduation from the College of Arts and Sciences. A cumulative grade point average of at least 2.0 is required.

Grade Rules

Restrictions on C- and D Grades

The College will accept no more than 15 semester hours of C- and D grades from other domestic institutions except for UNO and UNK. All courses taken at UNO and UNK impact the UNL transcript. No transfer of C- and D grades can be applied toward requirements in a major or a minor. No University of Nebraska–Lincoln C- and D grades can be applied toward requirements in a major or a minor. International coursework (including education abroad) with a final grade equivalent to a C- or lower will not be validated by the College of Arts and Sciences departments to be degree applicable.

Pass/No Pass Privilege

University policy for the Pass/No Pass (P/N) privilege:

- Neither the P nor the N grade factor into your GPA.
- 'P' is interpreted to mean a grade of C or above. A grade of C- or lower results in a "N'.
- A change to or from a Pass/No Pass may be made until mid-term (1/2 of the course - see the academic calendar for specific dates per term).
- The Pass/No Pass or grade registration cannot conflict with the policy of the professor, department, college, or University policy governing the grading options.
- Changing to or from the Pass/No Pass grading option requires using MyRED, or processing a Schedule Adjustment Form.
- For undergraduates, the University maximum of 24 'Pass' credit hours and/or college and department limits will apply. These limits do not include courses offered on a 'Pass/No Pass' basis only. Consult your advisor or the Undergraduate Catalog (https://catalog.unl.edu/undergraduate/) for restrictions on the number of 'Pass' hours you can apply toward your degree.
- The 'Pass/No Pass' grading option cannot be used for the removal of 'C-', 'D+', 'D', 'D-', or 'F' grade factors.
  NOTE: See Course Repeats *(*https://registrar.unl.edu/academic-standards/course-repeats/*)*

College of Arts and Sciences policy on the Pass/No Pass (P/N) privilege:

- Pass hours can count toward fulfillment of University ACE requirements and college distribution requirements up to the 24-hour maximum.
- Most arts and sciences majors and minors do not permit any courses graded Pass/No Pass to apply, or limit them to no more than 6 hours. Students should refer to the major section of the catalog for clarification.
- Departments may specify that certain courses of theirs can be taken on a P/N-only or on a graded-only basis.

Grading Appeals

A student who feels that he/she has been unfairly graded must ordinarily take the following sequential steps in a timely manner, usually by initiating the appeal in the semester following the awarding of the grade:

1. Talk with the instructor concerned. Most problems are resolved at this point.
2. Talk to the instructor's department chairperson.
3. Take the case to the Grading Appeal Committee of the department concerned. The Committee should be contacted through the department chairperson.
4. Take the case to the College Grading Appeals Committee by contacting the Dean's Office, 1223 Oldfather Hall.

Course Level Requirements

Courses Numbered at the 300 or 400 Level

Thirty (30) of the 120 semester hours of credit must be in courses numbered at the 300 or 400 level. Of those 30 hours, 15 hours (1/2) must be completed in residence at the University of Nebraska–Lincoln.

Residency Requirement

The term "Residency" refers to courses taken at UNL. Students must complete at least 30 of the 120 total hours for their degree at the University of Nebraska–Lincoln. Students must complete at least 18 hours of their major coursework, and 15 of the 30 hours required at the 300 or 400 level, at UNL.

Catalog to Use

Students must fulfill the requirements stated in the catalog for the academic year in which they are first admitted to and enrolled as a degree-seeking student at the University of Nebraska–Lincoln. In consultation with advisors, a student may choose to follow a subsequent catalog for any academic year in which they are admitted to and enrolled as a degree-seeking student at the University of Nebraska–Lincoln in the College of Arts and Sciences. Students must complete all degree requirements from a single catalog year. Beginning in 1990-1991, the catalog which a student follows for degree requirements may not be more than 10 years old at the time of graduation.

Transfer Students: Students who have transferred from a community college may be eligible to fulfill the requirements as stated in the catalog for an academic year in which they were enrolled at the community college prior to attending the University of Nebraska-Lincoln. This decision should be made in consultation with academic advisors, provided the student a) was enrolled in a community college during the catalog year they are utilizing, b) maintained continuous enrollment at the previous institution for 1 academic year or more, and c) continued enrollment at the University of Nebraska-Lincoln within 1 calendar year from their last term at the previous institution. Students must complete all degree requirements from a single catalog year and within the time frame allowable for that catalog year.

Major Requirements

Environmental and sustainability studies core requirements plus completion of one of the options: Policy, Advocacy, and Social Justice or Biosphere and Earth Systems Studies.

Core Requirements

Required Courses		
ENVR 101	Environmental & Sustainability Studies Orientation	1
ENVR 201	Science, Systems, Environment and Sustainability	3
ENVR 249 / NRES 249	Individual and Cultural Perspectives on the Environment	3
ENVR 319	Environmental Engagement and the Community	2
ENVR 334 / PSYC 334	Psychology of Environmental Sustainability	3
Credit Hours Subtotal:		12
Internship		
ENVR 495	Internship in Environmental & Sustainability Studies	1
Credit Hours Subtotal:		1
Thesis (ACE 10)		
Select one sequence:		*3*
ENVR 489 & ENVR 499	Environmental Studies Senior Thesis I and Environmental Studies Senior Thesis II [1]	
or ENVR 489H & ENVR 499H	Honors: Environmental Studies Senior Thesis I and Honors: Environmental Studies Senior Thesis II	

Credit Hours Subtotal:	3
Total Credit Hours	**16**

[1] ENVR 489 *and* ENVR 499 *are the capstone courses for environmental and sustainability studies majors.* ENVR 489H *and* ENVR 499H *are the capstone courses for Honors students.*

Policy, Advocacy, and Social Justice Option

Natural Science Foundations	**12-16**
Select one course or sequence from four of the following areas:	
Life Science	
BIOS 101 & 101L	General Biology and General Biology Laboratory
or LIFE 120 & 120L	Fundamentals of Biology I and Fundamentals of Biology I laboratory
Chemistry	
CHEM 105A & CHEM 105L	Chemistry in Context I and Chemistry in Context I Laboratory
or CHEM 109 & CHEM 109	General Chemistry I and General Chemistry I Laboratory
or CHEM 113 & CHEM 113	Fundamental Chemistry I and Fundamental Chemistry I Laboratory
Ecology	
BIOS 207	Ecology and Evolution
or NRES 220	Principles of Ecology
Earth Systems	
ENSC 110	Energy in Perspective
or GEOL 101	Dynamic Earth
or GEOL 106	Environmental Geology
or GEOG 155	Elements of Physical Geography
or GEOG 181	Global Environmental Issues
or NRES 108	
Climate	
METR 100	Weather and Climate
or METR 180	Climate Change, Energy, and the Environment
or NRES 104	Climate in Crisis
or NRES 208	Climate Literacy in Natural Resources
Water	
GEOG 281 / NRES 281	Introduction to Water Science
or ENVR 109	Water in Society
SCIL 109 / AECN 109 / NRES 109 / GEOG 109	
Soil	
SOIL 153 / PLAS 153	Soil Resources
Option Courses	**21**
Select 7 courses, at least one course from each area. At least 9 hours must be at the 300 or 400 level.	
Negotiation, Advocacy, and Discourse	
COMM 209	Public Speaking
COMM 212	Debate
COMM 220	Communication, Advocacy, and Global Citizenship
COMM 250	Rhetoric, Media, and Civic Life
COMM 312	Argumentation
COMM 355	Community and Identity in the Digital Age
COMM 375	Theories of Persuasion
Human Behavior and Change	
ANTH 473	Ecological Anthropology
COMM 271	Organizing Social Change
GEOG 450 / METR 450 / NRES 452 / PLAS 450	Climate and Society
NRES 315	Human Dimensions of Fish and Wildlife Management
POLS 250	Genetics, Brains, and Politics
PSYC 288	The Psychology of Social Behavior
SOCI 346	Environmental Sociology
Power, Politics, and Policy	
AECN 357 / NREE 357	Natural Resource and Environmental Law
AECN 456 / NREE 456	Environmental Law
ALEC 410 / NRES 413	Environmental Leadership
CRPL 470	Environmental Planning and Policy
ECON 200	Economic Essentials and Issues
ENSC 230	Energy and the Environment: Economics and Policy
NRES 323	Natural Resources Policy
PHIL 225	Environmental Ethics
POLS 100	Power and Politics in America
POLS 108	Political Ideas
POLS 221	Politics in State and Local Governments
POLS 332	Climate Change: Policy and Politics
POLS 334	Polls, Politics and Public Opinion
POLS 430 / COMM 430	Political Communication
Social Justice and Diversity	
ANTH 476 / GLST 476	Human Rights, Environment, and Development
COMM 311 / ETHN 311	Intercultural and Intergroup Communication
COMM 371	Communication in Negotiation and Conflict Resolution
COMM 465	Communication and Social Identity
COMM 482	Voices of Dissent and Activism
CRPL 400	Introduction to Planning
GEOG 406	Spatial and Environmental Influences in Social Systems
POLS 362	Globalization, Human Rights and Diversity
PSYC 330	Psychology of Diversity

SOCI 180	Social Problems
SOCI 217 / ETHN 217	Sociology of Race and Ethnicity
SOCI 261 / POLS 261	Conflict and Conflict Resolution
Data Analysis and Research Methods	
COMM 201	Social Scientific Research Methods in Communication Studies
COMM 202	Rhetorical Methods in Communication Studies
CRPL 471	Environmental Impact Assessment
ECON 215	Statistics
EDPS 459	Statistical Methods
POLS 286	Research Methods in Political Science
PSYC 350	Research Methods and Data Analysis
SOCI 205	Introduction to Social Research Methods
SOCI 206	Introduction to Social Statistics
STAT 218	Introduction to Statistics
STAT 380	Statistics and Applications
Total Credit Hours	**33-37**

Biosphere and Earth Systems Studies Option

Human Dimensions Foundations

Select one course from each area.

Negotiation, Advocacy, and Discourse		*3*
COMM 209	Public Speaking	
or COMM 21	Debate	
or COMM 22	Communication, Advocacy, and Global Citizenship	
or COMM 25	Rhetoric, Media, and Civic Life	
or COMM 31	Argumentation	
or COMM 35	Community and Identity in the Digital Age	
or COMM 37	Theories of Persuasion	
Power, Politics, and Policy		*3*
AECN 265 / NREE 265	Resource and Environmental Economics I	
or AECN 357	Natural Resource and Environmental Law	
or AECN 456	Environmental Law	
or ALEC 410	Environmental Leadership	
or CRPL 470	Environmental Planning and Policy	
or ECON 200	Economic Essentials and Issues	
or ENSC 230	Energy and the Environment: Economics and Policy	
or PHIL 225	Environmental Ethics	
or POLS 100	Power and Politics in America	
or POLS 108	Political Ideas	
or POLS 221	Politics in State and Local Governments	
or POLS 332	Climate Change: Policy and Politics	
or POLS 334	Polls, Politics and Public Opinion	
or POLS 430	Political Communication	
Data Analysis and Research Methods		*3*
STAT 218	Introduction to Statistics	
or STAT 380	Statistics and Applications	
Credit Hours Subtotal:		9

Required Option Courses

Life Science		*8*
LIFE 120 & 120L	Fundamentals of Biology I and Fundamentals of Biology I laboratory	
LIFE 121 & 121L	Fundamentals of Biology II and Fundamentals of Biology II Laboratory	
Chemistry: Select one sequence.		*4*
CHEM 109A & CHEM 109L	General Chemistry I and General Chemistry I Laboratory	
or CHEM 113A & CHEM 113L	Fundamental Chemistry I and Fundamental Chemistry I Laboratory	
Ecology: Select one course.		*3-4*
BIOS 207	Ecology and Evolution	
or NRES 220	Principles of Ecology	
Earth Systems: Select one course.		*3-4*
ENSC 110	Energy in Perspective	
or GEOL 101	Dynamic Earth	
or GEOL 106	Environmental Geology	
or GEOG 155	Elements of Physical Geography	
or GEOG 181	Global Environmental Issues	
or NRES 108		
Climate: Select one course.		*3-4*
METR 100	Weather and Climate	
or METR 180	Climate Change, Energy, and the Environment	
or NRES 104	Climate in Crisis	
or NRES 208	Climate Literacy in Natural Resources	
Water: Select one course.		*3*
GEOG 281 / NRES 281	Introduction to Water Science	
or ENVR 109 / SCIL 109 / AECN 109 / NRES 109 / GEOG 109	Water in Society	
Soil		*4*
SOIL 153 / PLAS 153	Soil Resources	
Geospatial Science		*3*
NRES 218	Introduction to Geospatial Technologies	
Advanced Option Sub-Area		**9**
Select at least 9 hours from one of the following sub-areas, with at least 6 hours at the 300 or 400 level.		
Earth Systems		
BIOS 454 / NRES 454	Ecological Interactions	
BIOS 458 / NRES 468 / BSEN 468	Wetlands	
GEOL 200	Mineralogy	
GEOL 201	Igneous and Metamorphic Petrology	
GEOL 308 / GEOG 308 / NRES 308	Biogeography	
GEOL 372	Water & Earth Connections	
GEOL 410	Geochemistry	

GEOL 423 / BIOS 423	Quaternary Paleoclimatology and Paleoecology
GEOL 424 / BIOS 424	Biogeochemical Cycles
GEOL 488 / NRES 488	Groundwater Geology
Climate	
METR 270	Global Warming: Science, Impacts, Solutions
METR 370 / NRES 370	Applied Climatology
METR 450 / GEOG 450 / NRES 452 / PLAS 450	Climate and Society
METR 470	The Climate System: Analysis and Prediction
METR 478 / NRES 478	Regional Climatology
Ecology	
BIOS 300 / ENTO 300 / NRES 300	Toxins in the Environment
BIOS 337	Applications of Bioinformatics
BIOS 406 / ENTO 406	Insect Ecology
BIOS 416	Biodiversity Conservation
BIOS 444 / GEOL 444	Earth and Environmental Microbiology
BIOS 454 / NRES 454	Ecological Interactions
BIOS 457 / GEOL 457	Ecosystem Ecology
BIOS 458 / NRES 468 / BSEN 468	Wetlands
BIOS 459 / NRES 459	Limnology
BIOS 481 / NRES 481K	Stream and River Ecology
GEOG 200 / LARC 200 / PLAS 200	Landscape and Environmental Appreciation
Geospatial Science	
CRPL 430	Planning with GIS
CRPL 432	Advanced Spatial Analysis with GIS
CRPL 433	GIS in Environmental Design and Planning
GEOG 418 / NRES 418	Introduction to Remote Sensing
GEOG 419 / GEOL 419 / NRES 420 / PLAS 419	Applications of Remote Sensing in Agriculture and Natural Resources
GEOG 421 / NRES 421	Field Techniques in Remote Sensing
GEOG 422	Advanced Techniques in Geographic Information Systems
GEOG 427 / NRES 427	Introduction to the Global Positioning System (GPS)
NRES 218	Introduction to Geospatial Technologies
Credit Hours Subtotal:	40-43
Total Credit Hours	**49-52**

Additional Major Requirements

Grade Rules

C- and D Grades

A grade of C or higher is required in all major courses.

Pass/No Pass

No courses taken Pass/No Pass will count toward the major or minor.

Requirements for Minor Offered by Department

Environmental Studies Minor

At least eighteen (18) hours, with six (6) hours at the 300 level or above.

Required Courses		
ENVR 101	Environmental & Sustainability Studies Orientation	1
ENVR 201	Science, Systems, Environment and Sustainability	3
ENVR 249 / NRES 249	Individual and Cultural Perspectives on the Environment	3
ENVR 319	Environmental Engagement and the Community	2
Credit Hours Subtotal:		9
Earth and Environmental Systems		
Select one course from the following:		3-4
BIOS 207	Ecology and Evolution	
ENSC 110	Energy in Perspective	
ENVR 109 / SCIL 109 / AECN 109 / NRES 109 / GEOG 109	Water in Society	
GEOG 155	Elements of Physical Geography	
GEOG 181	Global Environmental Issues	
GEOG 281	Introduction to Water Science	
GEOL 101	Dynamic Earth	
GEOL 106	Environmental Geology	
METR 100	Weather and Climate	
METR 180	Climate Change, Energy, and the Environment	
NRES 104	Climate in Crisis	
NRES 108		
NRES 208	Climate Literacy in Natural Resources	
NRES 220	Principles of Ecology	

SOIL 153 / PLAS 153	Soil Resources	
Credit Hours Subtotal:		3
Human Dimensions		
Select one course from the following:		3
ANTH 473	Ecological Anthropology	
COMM 209	Public Speaking	
COMM 212	Debate	
COMM 220	Communication, Advocacy, and Global Citizenship	
COMM 250	Rhetoric, Media, and Civic Life	
COMM 271	Organizing Social Change	
COMM 312	Argumentation	
COMM 355	Community and Identity in the Digital Age	
COMM 375	Theories of Persuasion	
GEOG 450 / METR 450 / NRES 452 / PLAS 450	Climate and Society	
NRES 315	Human Dimensions of Fish and Wildlife Management	
POLS 250	Genetics, Brains, and Politics	
PSYC 288	The Psychology of Social Behavior	
PSYC 334 / ENVR 334	Psychology of Environmental Sustainability	
Credit Hours Subtotal:		3
Economics and Policy		
Select one course from the following:		3
AECN 357 / NREE 357	Natural Resource and Environmental Law	
AECN 456 / NREE 456	Environmental Law	
ALEC 410 / NRES 413	Environmental Leadership	
CRPL 470	Environmental Planning and Policy	
ECON 200	Economic Essentials and Issues	
ENSC 230	Energy and the Environment: Economics and Policy	
NRES 323	Natural Resources Policy	
PHIL 225	Environmental Ethics	
POLS 100	Power and Politics in America	
POLS 108	Political Ideas	
POLS 221	Politics in State and Local Governments	
POLS 332	Climate Change: Policy and Politics	
POLS 334	Polls, Politics and Public Opinion	
POLS 430 / COMM 430	Political Communication	
Credit Hours Subtotal:		3
Total Credit Hours		**18**

Grade Rules

C- and D Grades

A grade of C or higher is required in all minor courses.

Pass/No Pass

No courses taken Pass/No Pass will count toward the major or minor.

ENVR 101 Environmental & Sustainability Studies Orientation
Description: Introduction to the Environmental Studies program and community. Weekly group discussions focus on majoring in and pursuing a career in Environmental Studies. Topics address the philosophy and structure of the program, exploring local environmental issues, and connecting academic work to career pursuits.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Grading Option: Graded with Option

ENVR 109 Water in Society
Crosslisted with: SCIL 109, AECN 109, NRES 109, GEOG 109
Description: Introduction to the scientific, social, and economic dimensions of historical and contemporary water systems. Students will develop an understanding of hydrologic systems and analyze and engage in decision-making about complex challenges associated with water resource use.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded with Option
Offered: FALL
ACE: ACE 4 Science ACE 8 Civic/Ethics/Stewardship

ENVR 189H University Honors Seminar
Prerequisites: Good standing in the University Honors Program or by invitation.
Notes: A University Honors Seminar 189H course is required of all students in the University Honors Program. Letter Grade Only.
Description: Topics vary.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded
ACE: ACE 8 Civic/Ethics/Stewardship

ENVR 201 Science, Systems, Environment and Sustainability
Description: Application of basic Earth system and ecosystem science concepts for understanding: natural systems; the relationships and interactions between the living and the non-living environment; current and future environmental challenges; the importance of considering scientific evidence and uncertainty; and the implementation of the sustainability concepts.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded with Option
ACE: ACE 8 Civic/Ethics/Stewardship

ENVR 249 Individual and Cultural Perspectives on the Environment
Crosslisted with: NRES 249
Description: The influence of culture on individual perspectives related to the concepts of sustainability and the relationship that humans have with the environment. The role of ethics, religion, and historical setting on the individual and cultural perspectives related to environmental challenges at the local to global scales.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded with Option
ACE: ACE 9 Global/Diversity

ENVR 319 Environmental Engagement and the Community
Description: The processes of environmental agencies and organizations use to develop and implement projects and programs. The development of their project proposal, work plans, budgets, and final report. Requires developing and implementing projects and programs in collaboration with clients who are from agencies and organizations working with environmental issues.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Grading Option: Graded with Option
Experiential Learning: Case/Project-Based Learning

ENVR 334 Psychology of Environmental Sustainability
Crosslisted with: PSYC 334
Description: Applications of psychological principles to understand human transactions with their environments and find behavior-based solutions to environmental problems.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded with Option
ACE: ACE 8 Civic/Ethics/Stewardship

ENVR 434 Environmental Education and Interpretation
Crosslisted with: NRES 434, NRES 834
Notes: Requires 20 hours of service.
Description: Examination of formal and informal environmental education and interpretation. Knowledge, application and practice relevant to science teachers and park, extension, museums, and zoo educators.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded with Option
Course and Laboratory Fee: $40
Experiential Learning: Community Engagement

ENVR 489 Environmental Studies Senior Thesis I
Prerequisites: ENVR major or minor; junior or senior standing
Notes: First course of a two-semester sequence of courses consisting of ENVR 489 and 499. Letter Grade only.
Description: Preparation for writing the required senior thesis.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Grading Option: Graded
Prerequisite for: ENVR 499
ACE: ACE 10 Integrated Product

ENVR 489H Honors: Environmental Studies Senior Thesis I
Prerequisites: University Honors Program; ENVR major or minor; junior or senior standing. Credit toward the degree cannot be earned in both ENVR 489 and ENVR 489H.
Notes: First course of a two-semester sequence of courses consisting of ENVR 489H and 499H. Letter Grade only.
Description: Preparation for writing the required senior thesis.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Grading Option: Graded
Prerequisite for: ENVR 499H
ACE: ACE 10 Integrated Product
Experiential Learning: Research

ENVR 495 Internship in Environmental & Sustainability Studies
Prerequisites: Permission.
Description: Experience in off-campus setting that is directly relevant to environmental studies.
Credit Hours: 1-4
Min credits per semester: 1
Max credits per semester: 4
Max credits per degree: 4
Grading Option: Graded with Option
Experiential Learning: Internship/Co-op

ENVR 496 Independent Study
Prerequisites: Permission.
Description: Independent reading or research under direction of a faculty member.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 6
Grading Option: Graded with Option

ENVR 499 Environmental Studies Senior Thesis II
Prerequisites: ENVR 489
Notes: Second course of a two-semester sequence of courses consisting of ENVR 489 and 499.
Description: Required thesis written under the supervision of the emphasis advisor or a faculty member designated by the advisor.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Grading Option: Graded with Option
ACE: ACE 10 Integrated Product

ENVR 499H Honors: Environmental Studies Senior Thesis II
Prerequisites: ENVR 489H. Credit toward the degree cannot be earned in both ENVR 499 and ENVR 499H.
Notes: Second course of a two-semester sequence of courses consisting of ENVR 489H and 499H.
Description: Required thesis written under the supervision of the emphasis advisor or a faculty member designated by the advisor.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Grading Option: Graded with Option
ACE: ACE 10 Integrated Product

Career Information

The following represents a sample of the internships, jobs and graduate school programs that current students and recent graduates have reported.

Transferable Skills

- Confidently navigate complex, ambiguous projects and environments
- Conduct and present research to large and small groups
- Integrate information and perspectives from multiple disciplines to solve problems
- Collaborate with a team to develop solutions
- Communicate clearly using different forms of writing to and for a variety of different audiences
- Comprehend and critically evaluate complex information
- Understand and use proper laboratory and technical skills and instruments
- Offer empathetic, sensitive, and patient interactions with others
- Understand and utilize a variety of research methodologies

Jobs of Recent Graduates

- Environmental Education Intern, Pottawatomie Conservation – Honey Creek, IA
- Assistant Scientist, Olsson – Lincoln, NE
- Scientist, State of Nebraska Department of Agriculture – Lincoln, NE
- Manager, Glacial Till Winery – Lincoln, NE
- Integrated Water Management Planner Assistant, Nebraska Dept of Natural Resources – Lincoln, NE
- Biological Technician, United States Dept of Agriculture-AMRU – Lincoln, NE
- Crime Analyst, Lincoln Police Department – Lincoln, NE
- Integrated Management Technical Assistant, Nebraska Dept of Natural Resources – Lincoln, NE

Internships

- Integrated Water Management Planner Assistant, Nebraska Dept of Natural Resources - Lincoln NE
- Biological Technician, USDA-AMRU - Lincoln NE
- Natural Resource Intern, JEO Consulting - Lincoln NE
- Pathways Intern, USDA Natural Resources Conservation Service - Lincoln NE
- Integrated Management Technical Assistant, NE Dept of Natural Resources - Lincoln NE
- Environmental Health Waste Section Intern, Lincoln-Lancaster County Health Dept - Lincoln NE
- Intern, Olsson Associates - La Vista NE
- Crime Analysis, Lincoln Police Department - Lincoln NE
- Project Manager Assistant Intern, LI-COR Biosciences - Lincoln NE
- Waste Section Intern, Lancaster County Health Department - Lincoln NE
- Integrated Water Management Planner Assistant, Nebraska Department of Natural Resources - Lincoln NE
- Biological Technician, USDA-AMRU - Lincoln NE
- Natural Resource Intern, JEO Consulting - Lincoln NE
- Pathways Intern, USDA - Natural Resource Conservation Services - Lincoln NE
- Permaculture Intern, Big Island Farms - Honokaa HI

Graduate & Professional Schools

- Master's Degree, Natural Resources, University of Nebraska-Lincoln – Lincoln, NE
- Master's Degree, Agronomy-Plant Pathology, University of Nebraska-Lincoln – Lincoln, NE
- Master's Degree, Environmental Science and Policy, Indiana University – Bloomington, IN
- Master's Degree, Energy, Technology, & Policy, Humboldt State University – Arcata, CA
- Master's Degree, Environmental Policy, University of Michigan – Ann Arbor, MI
- Master's Degree, Geography, University of Nebraska-Lincoln – Lincoln, NE
- Master's Degree, Public Health, University of Nebraska Medical Center – Omaha, NE
- Master's Degree, Water Biogeochemistry, University of Nebraska-Lincoln – Lincoln, NE
- Juris Doctorate, University of Nebraska College of Law – Lincoln, NE