### **Program Change Request**

Date Submitted: 03/20/25 3:29 pm

Viewing: 10KV5313BSLA & 10KV5313BSLU: Earth,

## Society, & Environmental Sustainability, BSLAS

Last approved: 04/21/22 3:25 pm

Last edit: 08/21/25 11:18 am

Changes proposed by: Jonathan Tomkin

Earth, Society, & Environmental Sustainability: Science of the Earth

Catalog Pages Using System (SES), BSLAS

this Program

Earth, Society, & Environmental Sustainability: Society and the

Environment (SAE), BSLAS

Proposal Type:

Major (ex. Special Education)

This proposal is for

a:

Revision

#### In Workflow

- 1. U Program Review
- 2. Gen Ed Review
- 3. 1901-ESEC Head
- 4. 1265-SESE Head
- 5. KV Dean
- 6. University Librarian
- 7. COTE Programs
- 8. Provost
- 9. Senate EPC
- 10. Senate
- 11. U Senate Conf
- 12. Board of Trustees
- 13. IBHE
- 14. HLC
- 15. Catalog Editor
- 16. DMI

### **Approval Path**

- 1. 01/27/25 2:53 pm Donna Butler (dbutler): Approved for U Program Review
- 2. 01/30/25 4:27 pm Melissa Steinkoenig (menewell): Approved for Gen **Ed Review**
- 3. 02/19/25 4:49 pm Jonathan Tomkin (tomkin): Approved for 1265-SESE Head
- 4. 02/28/25 1:40 pm Melissa Reedy (murray): Rollback to Initiator

- 5. 03/27/25 1:17 pm
  Donna Butler
  (dbutler): Approved
  for U Program
  Review
- 6. 03/27/25 3:58 pm
  Melissa Steinkoenig
  (menewell):
  Approved for Gen
  Ed Review
- 7. 03/27/25 4:35 pm Jonathan Tomkin (tomkin): Approved for 1901-ESEC Head
- 8. 03/27/25 5:13 pm Robert J. Trapp (jtrapp): Approved for 1265-SESE Head
- 9. 04/21/25 1:52 pm Melissa Reedy (murray): Approved for KV Dean
- 10. 04/21/25 2:52 pm Tom Teper (tteper): Approved for University Librarian
- 11. 04/21/25 4:15 pm
  Suzanne Lee
  (suzannel):
  Approved for COTE
  Programs
- 12. 04/23/25 5:37 pm
  Brooke Newell
  (bsnewell): Rollback
  to KV Dean for
  Provost
- 13. 05/02/25 11:21 am
  Melissa Reedy
  (murray): Approved
  for KV Dean
- 14. 05/05/25 12:12 pm Tom Teper (tteper):

Approved for University Librarian

- 15. 05/05/25 12:29 pm Suzanne Lee (suzannel): Approved for COTE Programs
- 16. 05/07/25 11:23 am
  Brooke Newell
  (bsnewell): Rollback
  to KV Dean for
  Provost
- 17. 06/04/25 12:37 pm Melissa Reedy (murray): Approved for KV Dean
- 18. 06/04/25 1:27 pm
  Tom Teper (tteper):
  Approved for
  University Librarian
- 19. 06/04/25 2:12 pm Suzanne Lee (suzannel): Approved for COTE Programs
- 20. 08/13/25 6:30 pm Brooke Newell (bsnewell): Approved for Provost

### History

- 1. Mar 30, 2019 by Deb Forgacs (dforgacs)
- 2. Apr 21, 2022 by Andrea Ray (aray)

### **Administration Details**

Name

Diploma Title

Sponsor College Liberal Arts & Sciences

Sponsor Sch Earth, Soc, Environ Admin Earth, Society,

Department and Environment Courses

Sponsor Name Jonathan Tomkin, <u>Associate</u> Director of <u>Undergraduate Studies</u>

Sponsor Email tomkin@illinois.edu

College Contact Stephen R. Downie - BEM College Contact

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College Budget Mich

Michael Wellens

Officer

College Budget <u>wellens@illinois.edu</u>

Officer Email

If additional stakeholders other than the Sponsor and College Contacts listed above should be contacted if questions during the review process arise, please list them here.

Does this program have inter-departmental administration?

No

### **Effective Catalog Term**

Effective Catalog

Fall 2025

Term

Effective Catalog 2025-2026

### **Proposal Title**

Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberal Arts and Sciences, include the Graduate College for Grad Programs)

Revise and Rename the Bachelor of Science in Liberal Arts and Sciences in Earth, Society, & Environmental Sustainability in the College of Liberal Arts and Sciences

Does this proposal have any related proposals that will also be revised at this time and the programs depend on each other? Consider Majors, Minors, Concentrations & Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently and together as needed. Format your response like the following "This BS proposal (key 567) is related to the Concentration A proposal (key 145)"

The BS proposal (key 695) is related to the ESES Concentration proposals Science of the Earth System (key 694) and Society and the Environment (key 696).

ogram Justification		

Provide a brief description, using a numbered item list, of the proposed changes to the program.

- 1. Sponsor department name was updated.
- 2. The formatting of the POS and additional text (including graduation requirements, university requirements, and general education requirements) and General Education table and LAS College requirements have been added.
- 3. The program name has been shortened to "Environmental Sustainability".
- 4. The total number of hours required in the major change from 48-58 to 46-56. The overall credit hours for the program did not change, they remain at 120 hours.
- 5. The ESES Introductory Core "approved courses" list is removed. The following courses were moved to concentration (Keys 696 and 694) specific coursework, but all others (29 courses) are no longer options:

Courses removed: ESE 111, GEOL 143, IB 100, IB 103, IB 105, MCB 150, NRES 105, UP 205, ATMS 100, ATMS 201, GGIS 222, ACE 210, ACE 251, GGIS 106, HIST 202, REL 270, RST 242, SOC 160, ANTH 278, CPSC 215, GEOL 208, LA 250, NPRE 101, NPRE 201, PS 224, PS 225, SOC 270, ATMS 207, GGIS 105

Key 696: ATMS 120, ATMS 140, GEOL 100, GEOL 107, GEOL 117, GEOL 118, GGIS 103

Key 694: GEOL 107, IB 150

- 6. A Major Requirements and hours line is added.
- 7. "Coursework" is now capitalized.
- 8. ENSU 300 which was previously listed as its cross listed rubric, LA 370 under the Sustainability, Policy, and Global Change header, has been moved to the major requirements.
- 9. GGIS 379 under ESE coursework header is listed now as its cross listed rubric, ESE 379 under ESE Coursework.
- 10. The number of required Advanced Courses has increased from 5 to 6.
- 11. The listing of advanced courses has been updated, and courses are now listed individually rather than as a list.
- 12. ESE 401 and 497 are added as Advanced Course options under the header Capstone and Experiential.
- 13. ESE 389 was moved from Environmental & the Human Response header to the Advanced Course options under the header Capstone and Experiential.
- 14. IB 440 and NRES 431 (same course) were listed individually under the header Earth's Biosphere & Ecology, and we kept only IB 440 in the same list.
- 15. GEOL 401 listed under Earth's Physical Systems, Resources, & Hazards is listed now as its cross listed rubric ESE 411 under the same header.
- 16. IB 362 and IB 411 have been added as an Advanced Course option.
- 17. AGCM 430, ENG 315, GGIS 468, IB 447, IB 485, NRES 424, NRES 426, UP 405 are removed as an Advanced Course option.
- 18. CHLH 469 is changed to HK 408 as an Advanced Course option.
- 19. ESE 467, ESE 477 and ESE 498 are added as Advanced Course options under the header Environment & the Human Response

- 20. GGIS 455 and GGIS 483, IB 405, LA 314, and UP 418 were removed as an Advanced Course option.
- 21. GGIS 407 was add as an Advanced Course option under the header Visualizing the Earth System.
- 22. The header "Required Concentration. Choose one below" with the choices of the two concentrations Science of the Earth System (Key 694) and Society and the Environment (Key 696) were added.

Did the program content change 25% or more in relation to the total credit hours, since the most recent university accreditation visit? See the italicized text below for more details.

<u>No</u>

Provide the reasoning for why each change was necessary, using a corresponding numbered item list as it relates to the brief description numbered list above.

- 1. The original Sponsor Department was incorrect due to a migration error.
- 2. Per Office of the Provost General Education initiative for transparency and accessibility as well as new POS guidelines require a detailed description of the General Education and College of LAS requirements.
- 3. By shortening our major name, we will more concisely describe the program, bring usual practice in line with the official name, and reduce confusion with other program names on campus. Students and faculty have long referred to the major as "Environmental Sustainability" (a shortening of the full name). This is the same name as the course rubric for courses in the program ("Environmental Sustainability" is abbreviated to ENSU in the course catalog). After consultation with students (including focus groups, surveys of majors, and surveys of nonmajors), we would like to standardize the name to be the same as this rubric. This change is supported by a large majority of current students. The change has also been partly motivated by Geology changing its name to "Earth Science and Environmental Change" (ESEC), which is very similar to the current major name (ESES). As it has tuned out, students both in and outside the major, and several faculty and staff, have trouble distinguishing between these two names and rubrics.
- 4. The minimum number of hours has changed as the updated POS reflects the current credit hours of courses in the POS. All students must choose a concentration, and the hours change is slightly different for each concentration. For the "Society and Environment" (SAE) Concentration the change is due to a combination of an hours change in ANTH 102 and the removal of the introductory "Approved Courses" list. ANTH 102 is a social science option in the "Society and Environment" (Key 696) Concentration, and ANTH 102 used to be a 4-credit hour course, and it is now a 3-credit course. In addition, the elimination of the introductory "Approved courses" reduces the total number of courses by four, and this is replaced by three courses: ENSU 300, a 3 or 4-credit hour Advanced Course, and a 3 or 4-credit hour SAE course (GEOL 100, GEOL 107, ESE 103, ESE 117, ESE 118, ESE 120, or ESE 140), which reduces the total number of credit hours in this Concentration by 2-4 credit hours. In the case of the "Science of the Earth System" (Key 694) Concentration, the elimination of the introductory "Approved courses" reduces the total number of courses by four, and this is replaced by three courses: ENSU 300, a 3 or 4-credit hour Advanced Course, and a 4-credit hour SES course (GEOL 107 or IB 150), which reduces the total number of credit hours in this Concentration by 1-2 credit hours.
- 5. These courses are replaced by Concentration specific Learning Outcome course choices, by ENSU 300, and by additional advanced courses. This reduces the number of introductory courses in the program, which enable an increase in advanced hours (in preparation of the incoming 40 Upper-Division hour requirement) while holding total required hours in the program constant. We have made changes that follow the recommendations set out in "EP.24.068 Interim Guidance Regarding Implementation of the Illinois Board of Higher Education 40 Upper-Division Hour Criterion". The targeted concentration courses are specifically chosen to be those that most contribute to Learning Outcomes 1 and 2. The change

also allows the addition of ENSU 300 as a required course, which is specifically designed for Learning Outcome 1. This change simplifies this degree, which is relatively complex, and so improves the program design.

- 6. This brings the POS into current practice.
- 7. This corrects a formatting error.
- 8. This increases the number of advanced courses in the program (in preparation of the incoming 40 advanced hour requirement). This addition is part of our Learning Outcomes process this new course will directly focus on deepening student understanding of Learning Outcome 1. ENSU 300 is cross listed as LA 370, formerly in the Sustainability, Policy, and Global Change list. We are listing the course as ENSU 300 because the School of Earth, Society and the Environment (SESE) has become the controlling unit of the course and is also taking over the instruction of the course, and it is consistent that readers of the catalog now see SESE's rubric.
- 9. When possible, the rubric ESE has been used throughout the POS for consistency to the program name.
- 10. References to the (now non-existent) Introductory Core has been removed, and the number of 300- and 400- level courses has been updated to six. This increase in advanced courses is in preparation of the incoming 40 advanced hour requirement.
- 11. Advanced courses were previously listed in blocks. To conform to current POS standards, each course is listed on its own line with credit hours shown. The previous grouping of topic areas has been retained for clarity.
- 12. ESE 401 and 497 are cross-cutting courses developed by SESE and added to our curriculum. They don't focus on a single topic area and so are not in the groupings.
- 13. ESE 389 is a field expedition course and is suited for the Capstone and Experiential courses required.
- 14. The error in the course list was corrected to remove the duplication, IB 440 and NRES 431 are the same course.
- 15. When possible, the rubric ESE has been used throughout the POS for consistency to the program name.
- 16. IB 362 and IB 411 are new courses that was added as part of our Learning Outcome Assessment process.
- 17. AGCM 430 is no longer a course in the catalog. Deactivated FA23.

ENG 315 is no longer a course in the catalog. Deactivated FA22.

IB 447 is no longer a course in the catalog. Deactivated SP23.

IB 485 is no longer a course in the catalog. Deactivated SP23.

NRES 424 is no longer a course in the catalog. Deactivated FA23

NRES 426 is no longer a course in the catalog. Deactivated SP25.

GGIS 468 is no longer a course in the catalog. Deactivated SP25.

UP 405 is no longer a course in the catalog. Deactivated SP25.

- 18. "Environmental Health" changed its rubric from CHLH to HK when the Department of Community Health changed its name. This change reflects the course's new rubric.
- 19. ESE 467, 477 and 498 are new courses developed and offered by the School of Earth, Society and the Environment that contributes to Learning Outcome 4.

20. 3013 403, 3013 403, 10 403, LA 314, and OF 410 were removed from our course list as part of our Learning Outcome Assessment process; it was determined to insufficiently match our Learning Outcomes.

- 21. GGIS 407 is a new course developed by the Department of Geography and Geographic Information Science, a unit in the School, that contributes to Learning Outcome 5.
- 22. The required concentrations are now listed in the major to be clear that the major requires a choice of one of the concentrations.

### **Instructional Resources**

Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change?

No

Does this new program/proposed change result in the replacement of another program?

No

Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/ revision of this program? If Yes is selected, indicate the appropriate courses and attach the letter of support/ acknowledgement.

Yes

Courses outside of the sponsoring department/interdisciplinary departments:

ACE 210 - Environmental Econ & Policy

ACE 251 - The World Food Economy

ANTH 278 - Climate Change & Civilization

ATMS 100 - Introduction to Meteorology

ATMS 120 - Severe and Hazardous Weather

ATMS 140 - Climate and Global Change

ATMS 201 - General Physical Meteorology

ATMS 207 - Weather and Climate Data Sci

CPSC 215 - The Prairie and Bioenergy

GEOL 100 - Planet Earth

GEOL 107 - Physical Geology

GEOL 111 - Emergence of Life

GEOL 117 - The Oceans

GEOL 118 - Natural Disasters

GEOL 143 - History of Life

GEOL 208 - History of the Earth System

GGIS 103 - Earth's Physical Systems

GGIS 106 - Geographies of Globalization

GGIS 222 - Big Rivers of the World

GGIS 407 - CyberGIS & Geospatial Data Sci

GGIS 455 - Geog of Sub-Saharan Africa

GGIS 483 - Urban Geography

ENGL 477 - Advanced Environmental Writing

HIST 202 - American Environmental History

IB 100 - Biology in Today's World

IB 103 - Introduction to Plant Biology

IB 105 - Environmental Biology

IB 150 - Organismal & Evolutionary Biol

IB 362 - Marine Biology

IB 405 - Evol of Traits and Genomes

IB 411 - Bioinspiration

LA 250 - Environmental Site Analysis

LA 314 - History of World Landscapes

MCB 150 - Molec & Cellular Basis of Life

NPRE 101 - Introduction to Energy Sources

NPRE 201 - Energy Systems

NRES 105 - Climate Change and Ecosystems

PS 224 - Politics of the National Parks

PS 225 - Environmental Politics&Policy

REL 270 - Religion, Ethics, Environment

RST 242 - Nature and American Culture

SOC 160 - Global Ineq and Social Change

UP 205 - Ecology & Env Sustainability

UP 418 - GIS for Planners

SOC 270 - Global Demography

Please attach any <u>ACE\_Acknowledgement.pdf</u>
letters of support/ <u>CPSC\_acknowledgement.pdf</u>

acknowledgement <u>ATMS\_support.pdf</u>

for any <u>ATMS\_Acknowledgement.pdf</u> Instructional <u>ANTH\_Acknowledgement.pdf</u>

Resources. <u>GEOL support2.pdf</u>

Consider faculty, <u>HIS\_Acknowledgement.pdf</u> students, and/or <u>GGIS\_Acknowledgement.pdf</u>

other impacted GGIS\_support2.pdf

units as <u>SIB\_Acknowledgement.pdf</u>

appropriate. <u>SIB\_support2.pdf</u>

SIB support.pdf

LA Acknowledgement.pdf

NRES\_acknowledgement2.pdf

NPRE\_Acknowledgement.pdf

MCB\_Acknowledgement.pdf

REL acknowledgement2.pdf

GGIS\_support.pdf

ENGL\_support2.pdf

UP\_Acknowledgement.pdf

SOC\_Acknowledgement.pdf

RST\_Acknowledgement.pdf

Geol\_acknowledgment2.pdf

ESEC\_acknowledgement.pdf

PS\_Acknowledgement.pdf

### **Program Features**

Academic Level Undergraduate

Does this major

Yes

have transcripted concentrations?

Concentrations

#### Concentrations(s)

Environmental Sustainability: Society and the Environment, BSLAS

Environmental Sustainability: Science of the Earth System, BSLAS

Will you admit to Yes No

the concentration

directly?

Is a concentration Yes

required for graduation?

What is the longest/maximum time to completion of this program?

4 years

What are the minimum Total Credit Hours required for this program?

120

CIP Code 300601 - Systems Science and Theory.

Is this program part of an ISBE approved licensure program?

No

Will specialized accreditation be sought for this program?

No

Does this program prepare graduates for entry into a career or profession that is regulated by the State of Illinois?

### **Program of Study**

Provide detailed information (course rubrics, numbers, and credit hours) of how a student could obtain 40 credit hours of upper-division coursework.

The major explicitly requires 25-31 credit hours: all students in the major are required to take ENSU 300 (3 hours), ESE 379 (4 credit hours), and 18-24 credit hours chosen from an advanced course list in the Program of Study.

The remaining 9-15 credit hours can be completed with upper division free electives of which there are 21 credit hours noted in the sample sequence.

Revised programs

695 SampleSequence EnvironmentalSustainability 5 2.docx Key695 SidebySide EnvironmentalSustainability 5 2.xlsx

### **Catalog Page Text - Overview Tab**

Catalog Page Overview Text

The Environmental Sustainability major combines earth system science and the social sciences to equip students to address complex environmental challenges. All students receive a broad education in human—environment interactions and a deep understanding of their chosen focus area, which encompasses the sciences, social sciences, and humanities. The major emphasizes systems thinking, quantitative reasoning and clear communication. Graduates of the program are prepared for professional roles or graduate study in a wide variety of environmental and sustainability fields.

Is the overview text above correct?

<u>Yes</u>

Statement for Programs of Study Catalog

#### **Graduation Requirements**

Minimum hours required for graduation: 120 hours.

Generaleducation:Students must complete the Campus General Education requirements including the campus general education languagerequirement. Minimum required major and supporting course work: Normally equates to <u>46-56</u> 48-58 hours. Twelve hours of 300- and 400-level courses in the major must be taken from on this campus. Substitutions may be made with advisor approval.

#### **University Requirements**

The university and residency requirements can be found in the Student Code (§ 3-801) and in the Academic Catalog.

#### **General Education Requirements**

<u>Follows the campus General Education (Gen Ed) requirements.</u> <u>Some Gen Ed requirements may be met by courses required and/or electives in the program.</u>

Composition I		<u>4-6</u>
Advanced Composit	<u>ion</u>	<u>3</u>
Humanities & the Ar	rts (6 hours)	<u>6</u>
Natural Sciences & 1	Technology (6 hours)	<u>6</u>
Social & Behavioral	Sciences (6 hours)	<u>6</u>
Cultural Studies: No	n-Western Cultures (1 course)	<u>3</u>
Cultural Studies: US	Minority Cultures (1 course)	<u>3</u>
Cultural Studies: We	estern/Comparative Cultures (1 course)	<u>3</u>
Quantitative Reason	ning (2 courses, at least one course must be Quantitative Reasoning I)	<u>6-10</u>
Language Requiremered	ent (Completion of the fourth semester or equivalent of a language other than English is	<u>0-20</u>
Orientation and Profe	essional Development	
<u>LAS 101</u>	Design Your First Year Experience	<u>1</u>
<u>OR</u>		
<u>LAS 100</u> <u>&amp; LAS 101</u>	Success in LAS for International Students and Design Your First Year Experience	<u>3</u>
<u>OR</u>		
LAS 102	<u>Transfer Advantage</u>	<u>1</u>
Major Requirements		
ESES Introductory C	<del>Core</del>	<del>12-14</del>
ESE Coursework		<u>10</u>
ESE 200	Earth Systems	3
GGIS 379	Introduction to Geographic Information Systems	
ENSU 300	Environmental Sustainability	<u>3</u>
ESE 379	Introduction to Geographic Information Systems	<u>4</u>
Advanced Courses		18-24

A minimum of five 300- and 400-level courses (from the list below) and in an academically coherent program approved by the advisor, are required. Courses taken to satisfy the "ESE Introductory Core" requirement cannot simultaneously be used to satisfy the Advanced Course requirement. It is strongly recommended that students complete the LAS requirement with 21 hours of 300- or 400-level courses

#### related to the ESE curriculum.

At least three of these five advanced courses must be listed or cross-listed as an ESE or ENSU course.

A minimum of six 300- and 400-level courses (from the lists below), totaling at least 18 credit hours, and in an academically coherent program approved by the advisor, are required. At least three of these six advanced courses must be listed or cross-listed as an ESE or ENSU course.

#### **Capstone and Experiential**

ESE 111, GEOL 143, IB 100, IB 103, IB 105, IB 150, MCB 150, NRES 105, UP 205

#### Earth's Physical Systems, Resources, and Hazards

ATMS 100, ATMS 120, ATMS 201, GEOL 100, GEOL 107, GEOL 117, GEOL 118, GGIS 103, GGIS 222

#### **Environment and the Human Response**

#### ACE 210, ACE 251, GGIS 106, HIST 202, REL 270, RST 242, SOC 160

ESE 389	Environment and Sustainability Field Expedition	<u>3</u>
ESE 401	ESE Capstone	<u>3</u>
ESE 497	Special Topics in ESE	<u>1 to 4</u>

#### **Earth's Biosphere & Ecology**

# ESE 439, HORT 430, IB 405, IB 440, IB 444, IB 447, IB 451, IB 452, IB 453, IB 461, IB 485, NRES 348, NRES 419, NRES 420, NRES 431

ESE 439	Biogeography	<u>3</u>
<u>HORT 430</u>	Children and Nature	<u>2</u>
<u>IB 362</u>	Marine Biology	<u>3</u>
<u>IB 411</u>	Bioinspiration	<u>3</u>
<u>IB 440</u>	Plants and Global Change	<u>3</u>
<u>IB 444</u>	Insect Ecology	<u>3</u>
<u>IB 451</u>	<u>Conservation Biology</u>	<u>4</u>
<u>IB 452</u>	Ecosystem Ecology	<u>3</u>
<u>IB 453</u>	Community Ecology	<u>3</u>
<u>IB 461</u>	<u>Ornithology</u>	<u>4</u>
NRES 348	Fish and Wildlife Ecology	<u>3</u>
NRES 419	Env and Plant Ecosystems	<u>3</u>
NRES 420	Restoration Ecology	<u>4</u>

ABE 436, ATMS 420, CEE 330, CHEM 360, ENSU 302, ESE 320, ESE 333, ESE 411, ESE 445, ESE 470, ESE 486, GEOL 380, GEOL 401, GEOL 450, GEOL 451, GEOL 460, GGIS 401, GGIS 406, GGIS 408, MSE 489, NRES 351

ABE 436	Renewable Energy Systems	<u>3</u>
<u>ATMS 420</u>	Atmospheric Chemistry	<u>4</u>
<u>CEE 330</u>	Environmental Engineering	<u>3</u>
<u>CHEM 360</u>	Chemistry of the Environment	<u>3</u>
<u>ENSU 302</u>	Air Pollution to Global Change	<u>3</u>
ESE 320	Water Planet, Water Crisis	<u>3</u>
ESE 333	Earth Materials and the Env	<u>4</u>
ESE 411	<u>Geomorphology</u>	<u>4</u>
ESE 445	Earth Resources Sustainability	<u>3</u>
ESE 470	Introduction to Hydrogeology	<u>4</u>
ESE 486	Environmental Consulting	<u>3</u>
GEOL 380	Environmental Geology	<u>4</u>
GEOL 450	Investigating the Earth's Interior	<u>3</u>
<u>GEOL 451</u>	Environmental Geophysics	<u>4</u>
<u>GEOL 460</u>	Geochemistry	<u>3</u>
GGIS 401	Watershed Hydrology	<u>3</u>
GGIS 406	Fluvial Geomorphology	<u>4</u>
<u>GGIS 408</u>	<u>Humans and River Systems</u>	<u>4</u>
MSE 489	Matl Select for Sustainability	<u>3</u>
NRES 351	Introduction to Environmental Chemistry	<u>3</u>

#### **Environment & the Human Response**

AGCM 330, AGCM 430, CHLH 469, ENG 315, ENGL 476, ENSU 301, ESE 311, ESE 360, ESE 389, GGIS 350, GGIS 384, GGIS 455, GGIS 483, GGIS 495, GGIS 496, LA 314, LA 430, LA 450, NRES 340, NRES 472, SOC 447

#### **Sustainability, Policy, and Global Change**

ACE 310, ACE 406, ACE 411, ATMS 307, ATMS 447, ATMS 449, CPSC 336, CPSC 415, CPSC 431, ENSU 303, ENSU 310, ENSU 410, ESE 410, ESE 465, ESE 466, ESE 482, ETMA 311, LA 370, NPRE 480, NRES 325, NRES 424, NRES 426, NRES 439, UP 405, UP 446, UP 456, UP 480

### **Visualizing the Earth System**

ATMS 305, ESE 421, ESE/GGIS 380, GGIS 371, GGIS 412, GGIS 460, GGIS 468, GGIS 476, GGIS 477, GGIS 479, NRES 427, NRES 454, UP 418

	•	
AGCM 330	Environmental Communications	<u>3</u>
<u>HK 408</u>	Environmental Health	<u>3</u>
ENGL 476	Topics in Literature and the Environment	<u>3</u>
ENSU 301	Soc Impacts Weather & Climate	<u>3</u>
ESE 311	Environmental Issues Today	<u>3</u>
ESE 360	Environmental Writing	<u>3</u>
ESE 467	Multimedia Environmental Communications	<u>3</u>
ESE 477	Advanced Environmental Writing	<u>3</u>
ESE 498	Environmental Writing for Publication	<u>3</u>
GGIS 350	Sustainability and the City	<u>3</u>
GGIS 384	Population Geography	<u>3</u>
<u>GGIS 495</u>	Advanced Topics in Geography	<u>3 or</u>
GGIS 496	Climate & Social Vulnerability	<u>3</u>
<u>LA 430</u>	<u>Children and Nature</u>	<u>2</u>
LA 450	Ecology for Land Restoration	<u>4</u>
NRES 340	Environ Social Sci Res Meth	<u>3</u>
NRES 472	Environmental Psychology	<u>4</u>
SOC 447	Environmental Sociology	<u>3</u>
Sustainability, I	Policy, and Global Change	
ANTH 278, ATM	IS 140, CPSC 215, GEOL 208, LA 250, NPRE 101, NPRE 201, PS 224, PS 225, SOC 270	
ACE 310	Natural Resource Economics	<u>3</u>
ACE 406	Environmental Law	<u>3</u>
ACE 411	Environment and Development	<u>3</u>
ATMS 307	Climate Processes	<u>3</u>
ATMS 447	Climate Change Assessment	<u>3</u>
ATMS 449	Biogeochemical Cycles	<u>4</u>

<u>CPSC 336</u>	Tomorrow's Environment	<u>3</u>
<u>CPSC 415</u>	Bioenergy Crops	<u>3</u>
<u>CPSC 431</u>	Plants and Global Change	<u>3</u>
ENSU 303	Sustainable Business I	<u>4</u>
ENSU 310	Renewable & Alternative Energy	<u>4</u>
ENSU 410	Sustainable Organizations	<u>4</u>
ESE 410	Green Development	<u>4</u>
ESE 465	<u>Transportation &amp; Sustainability</u>	<u>3</u>
ESE 466	Environmental Policy	<u>3</u>
ESE 482	<u>Challenges of Sustainability</u>	<u>3</u>
ETMA 311	<u>Humanity in the Food Web</u>	<u>3</u>
NPRE 480	Energy and Security	<u>3</u>
NRES 325	Natural Resource Policy Mgmt	<u>3</u>
NRES 439	Env and Sustainable Dev	<u>3</u>
<u>UP 446</u>	Sustainable Planning Seminar	<u>4</u>
<u>UP 456</u>	Sustainable Planning Workshop	<u>4</u>
<u>UP 480</u>	Sustainable Design Principles	<u>2</u>
Visualizing the E	arth System	
ATMS 207, GGIS	<del>105</del>	
ESE coursework		7
<u>ATMS 305</u>	Computing and Data Analysis	<u>3</u>
ESE 380	Geographic Information Systems II	<u>4</u>
ESE 421	Earth Systems Modeling	<u>4</u>
GGIS 371	Spatial Analysis	<u>4</u>
GGIS 407	Foundations of CyberGIS & Geospatial Data Science	<u>4</u>
<u>GGIS 412</u>	Geospatial Technologies & Society	<u>3</u>
<u>GGIS 460</u>	Aerial Photo Analysis	<u>3</u>
<u>GGIS 476</u>	Environmental Remote Sensing	<u>3</u>
GGIS 477	Introduction to Remote Sensing	<u>3</u>

<u>GGIS 479</u>	Advanced Topics in GIS	<u>4</u>
NRES 427	Modeling Natural Resources	<u>4</u>
NRES 454	GIS in Natural Resource Mgmt	<u>4</u>
Required Conce	ntration. Choose one below:	

Science of the Earth System

Society and the Environment

Minimum hours required forgraduation:120hours.

Corresponding BSLAS Bachelor of Science in Liberal Arts and

Degree Sciences

### **Program Regulation and Assessment**

#### Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

Are the learning outcomes for the program listed in the Academic Catalog?

Yes

#### **Student Learning Outcomes**

- 1. Be able to recognize, critique and implement commonly accepted Sustainability models and ideas in a wide variety of settings, using systems thinking to link social and natural science concepts.
- 2. Have a fundamental understanding of the underlying natural science (SES concentration) or social science (SAE concentration) concepts; being able to recognize and apply appropriate scientific methods (SES concentration) and social science methods (SAE concentration).
- 3. Use quantitative methods to describe, understand and evaluate theoretical and applied issues in environmental and sustainability study; this includes direct calculation, working with data, and using quantitative models.
- 4. Be able to critically evaluate and then communicate environmental and sustainability concepts to both specialized and wide audiences.
- 5. Students will demonstrate professional competence in environmental and sustainability practice by executing appropriate laboratory and field techniques, applying Geographic Information Science tools and software, and selecting and employing suitable quantitative and qualitative analytical methods. N/A

Did you make any revisions to the learning outcomes you copied and pasted from the current academic catalog?

Describe how, when, and where these learning outcomes will be assessed.

#### Describe here:

Assessment Approach in the Environmental Sustainability Program

The Environmental Sustainability program employs a structured approach to assess student learning outcomes (LOs) through evaluations at foundational, mid-program, and capstone stages. Assessments are both direct and indirect.

Start of Program (Foundational Stage)

In the foundational stage, direct assessments occur within core courses. In ESE 200 (Earth Systems), students are introduced to sustainability models and systems thinking, with course based assessment. This serves as a baseline assessment of LO1, focusing on students' ability to recognize and apply basic sustainability concepts.

For Science of the Earth System Concentration students, cognate courses such as MATH 220/221, PHYS 101/211, CHEM 102, and STAT 100 provide students with natural science and quantitative foundations (LO2 and LO3). For Society and the Environment Concentration students, required social science courses and STAT 100 provide students with social science and quantitative foundations (LO2 and LO3).

These foundational assessments establish baselines across Learning Outcomes.

#### Mid-Program (Advanced Coursework and Integration)

Mid-program assessments focus on deeper disciplinary understanding and practical applications. Advanced ENSU and ESE courses, chosen based on each student's concentration. ENSU 300 (Environmental Sustainability) has learning objectives built around reaching proficiency in LO1. Students complete written assignments and introductory presentations, providing a direct assessment of their early ability to communicate sustainability concepts (LO4).

ESE 379 (Introduction to GIS) is focused on developing quantitative methods to describe geographic information using industry standard software, furthering LO3 and LO5.

Program specific communication courses (ESE 360 and ESE 467) have students evaluating and then communicating environmental and sustainability concepts (LO4).

Students choose focused upper level (300 and 400 level) courses as part of their concentration. These are chosen with an advisor to directly deepen their concentration understanding (LO2), with all courses related to one or more of LO1-5.

#### End of Program (Summative Assessment)

In the capstone paper and field expedition courses (typically ESE 389 and ESE 401), students demonstrate their ability to apply sustainability models (LO1), exhibit disciplinary knowledge in natural or social sciences (LO2), and use quantitative methods for data analysis (LO3). There is usually a presentation, (LO4), and an opportunity to draw on technical competencies, highlighting professional readiness (LO5).

#### Indirect Assessment Measures

In addition to these direct assessments, the program employs several indirect measures to assess student learning outcomes and program effectiveness. Each graduating senior completes

an exit survey upon graduation, providing feedback on their educational experience and self-assessment of their preparedness in relation to each learning outcome. Alumni and employer feedback are also collected to evaluate graduates' readiness and effectiveness in the professional sphere. Post-graduation metrics, including job placement rates, graduate school placement and acceptance, and feedback from employers, further assess program impact and identify areas for continuous improvement.

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Faculty expect students to achieve Level 3 (Proficient) or higher across all learning outcomes by program completion, with some students reaching Level 4 (Exemplary) in specific areas.

Proficiency is demonstrated through direct assessments (such as capstone projects, experiential courses, and advanced coursework), and indirect assessments (such as exit surveys and alumni responses). This rubric provides clear standards for evaluating student achievement of program goals and supports faculty in giving targeted feedback for growth.

The "program LOA rubric" and an example course rubric are attached.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

To ensure that assessment results are effectively used to improve student learning in the Environmental Sustainability program, a continuous improvement process is employed. This process includes structured data collection, analysis, and feedback.

- 1. Annual Data Collection and Review:
- o Each year, the Associate Director and faculty advisors collect data from both direct and indirect assessment measures. Direct assessment data include progress and feedback from foundational, advanced, and capstone courses, while indirect data come from exit and graduate surveys.
- o Specific attention will be paid to capstone projects and advanced coursework, as these provide summative assessments of students' achievement in each learning outcome.
- 2. Analysis by the Courses & Curriculum Committee:
- o The Courses & Curriculum Committee reviews the data for action items. This analysis focus's on identifying trends and areas where students may be struggling to meet learning outcomes, as well as areas where students excel.
- o For each learning outcome, the committee will evaluate whether students are achieving the expected proficiency levels. This step evaluates the effectiveness of current teaching strategies, course content, and assessment methods.
- 3. Faculty Feedback and Discussion:
- o Assessment results are shared with the entire faculty each year in a faculty meeting. Faculty members who teach foundational, advanced, and capstone courses will discuss specific challenges and successes they observed in student performance.
- 4. Action Plan Development:
- o Based on the assessment data and faculty input, the Courses & Curriculum Committee develop an action plan, as needed. This plan may include modifications to course content, assessment methods, and instructional practices.
- o The action plan will specify targeted improvements for each learning outcome as needed, along with timelines for implementation and designated faculty responsible for overseeing changes.
- 5. Implementation and Monitoring:
- o Faculty members responsible for implementing changes will integrate the improvements into their courses in the following academic year. This may include revising syllabi, introducing new learning activities, or updating assessment rubrics to better measure specific outcomes.

  o The Associate Director will monitor the implementation process, ensuring that changes are made as planned and providing support to faculty as needed.
- 6. Ongoing Feedback Loop:
- o After implementation, the Associate Director and Courses & Curriculum Committee will continue to collect and review assessment data annually to monitor the impact of changes on student learning. Adjustments will be made as needed, based on whether improvements are yielding the desired outcomes.
- o Additionally, feedback from exit surveys, alumni, and employer surveys will be incorporated into this process to gain insights on how well the program prepares students for professional success, providing an external perspective on curriculum effectiveness.

**Program** 

Capstone Rubric for ESES.docx

Description and

program LOA rubric.docx

Requirements

**Attach Documents** 

### **Delivery Method**

This program is

available:

On Campus and Online - 2 program types. Students can receive the entire program either on campus or online. Students can choose to take courses in either modality.

Describe the use of this delivery method:

Program is offered on-campus and online. Admin update to add online program to CIM record.

### **Admission Requirements**

**Desired Effective** 

Spring 2026

**Admissions Term** 

Is this revision a change to the admission status of the program?

<u>No</u>

Provide a brief narrative description of the admission requirements for this program. Where relevant, include information about licensure requirements, student background checks, GRE and TOEFL scores, and admission requirements for transfer students.

Admission requirements are not changing. Continuing students will continue with the current degree requirements by default, with the option to change to the updated degree requirements.

### **Enrollment**

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

N/A

Estimated Annual Number of Degrees Awarded

Year One Estimate

5th Year Estimate (or when fully implemented)

What is the matriculation term for this program?

### **Budget**

Are there

No

budgetary

implications for this

revision?

Will the program or revision require staffing (faculty, advisors, etc.) beyond what is currently available?

No

Additional Budget Information

Attach File(s)

### **Financial Resources**

How does the unit intend to financially support this proposal?

Will the unit need to seek campus or other external resources?

No

Attach letters of

support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

**Undergraduate Base Tuition** 

Are you seeking a change in the tuition rate or differential for this program?

No

### **Faculty Resources**

Please address the impact on faculty resources including any changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc.

The total number of courses required remains the same, so we do not anticipate that this will alter faculty numbers, class sizes, teaching loads or student faculty ratios.

### **Library Resources**

Describe your proposal's impact on the University Library's resources, collections, and services. If necessary please consult with the appropriate disciplinary specialist within the University Library.

According to Jessica Hagman, the subject specialist assigned to ESES, "The Library's existing resources, collections in the relevant subject areas, and services are sufficient to meet the needs of the proposed program as of Fall 2024."

#### **EP Documentation**

EP Control Number EP.26.009

Attach Rollback/ Approval Notices

#### **Non-EP Documentation**

U Program Review

Comments

Rollback

Documentation and

Attachment

#### **DMI Documentation**

Attach Final

**Approval Notices** 

Banner/Codebook

Name

BSLAS: Earth, Soc, Env Sust-UIUC & BSLAS: ESES Online - UIUC

Program Code: 10KV5313BSLA & 10KV5313BSLU

Minor Conc Degree BSLAS
Code Code Code Major

Code

5313

Senate Approval

Date

Senate Conference
Approval Date

BOT Approval Date

IBHE Approval Date

HLC Approval Date

DOE Approval Date

Effective Date:

# Program Reviewer Comments

**Donna Butler (dbutler) (05/14/24 8:09 am):** BV- Office of the Registrar- Correction made to Department to Sch Earth, Soc, Environ Admin as this department was missing from department list in CIM before, and has now been added.

**Brooke Newell (bsnewell) (05/15/24 8:53 am):** Rollback: Email sent to Jonathan and Stephen D.

**Donna Butler (dbutler) (12/19/24 9:03 am):** Rollback: Spring 2025 effective term is not possible for these changes. We need to have all related proposals revised and submitted together to move through workflow. The Delivery Method section should be revised to remove reference to adding online format since that change occurred years ago. You must provide response in the admission requirement section to explain how continuing students will be handled since this change will require new major and program codes.

**Donna Butler (dbutler) (01/06/25 4:57 pm):** Rollback: We need to have all related proposals revised and submitted together to move through workflow. Proposals will be held until all related proposals are submitted to workflow. The Delivery Method section should be revised to remove reference to adding online format since that change occurred years ago. You must provide response in the admission requirement section to explain how continuing students will be handled since this change will require new major and program codes.

Melissa Steinkoenig (menewell) (01/30/25 4:27 pm): Made adjustments to the Gen Ed table to align with major per approval and review by Jonathan Tomkin

Melissa Steinkoenig (menewell) (01/30/25 4:27 pm): Gen Ed Table Check: Good Melissa Reedy (murray) (02/28/25 1:40 pm): Rollback: Email sent to Jonathan, SESE Head, and Stephen

**Brooke Newell (bsnewell) (04/23/25 5:37 pm):** Rollback: Discussion via email with College and Dept Sponsor included. Rolled back to KV Dean per request of Melissa R.

Brooke Newell (bsnewell) (05/07/25 11:23 am): Rollback: Per request from College.