

New Undergraduate Program (Majors, Minors, Sequences) Proposal

Illinois State University - University Curriculum Committee

Program Department Geography, Geology, and the Environment
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Title of New Program GEO, ESSS, Accelerated Sequence

Submission Date Wednesday, December 6, 2023
Email ewpeter@ilstu.edu
Campus Address 4400 Geography - Geology
Version 7 **ID** 444
Proposed Starting Catalog Year 2025-2026

1. Proposed Action

- New Major
- New Minor
- ✓ New Sequence
- More than 50% of courses in this program are Distance Education

Sequence Major

Environmental Systems Science and Sustainability (ESSS)

2. Provide *Undergraduate Catalog* copy for new program.

Main Department of GEO catalog page copy:

Major in Environmental Systems and Science and Sustainability (ESSS)

Students are encouraged to pursue a minor in Biological Sciences or Chemistry or Physics or Mathematics. ESSS students may not minor in the existing Environmental Studies Minor program.

Students in the Environmental Systems and Science and Sustainability major must complete one of the following sequences.

Accelerated Sequence

This sequence allows students to take up to 12 hours of approved graduate courses that will count for both the undergraduate ESSS Program and graduate Hydrogeology program. Students can then apply to the Hydrogeology graduate program in the spring of their senior year. Enrollment in the Accelerated Sequence does not guarantee final admission into the Hydrogeology graduate program. For additional information on minimum requirements for admission and the application and selection process, visit IllinoisState.edu/Majors. Program Admission Requirements for New and Continuing Students: High achieving students with a cumulative GPA of 3.20 or higher may apply to the accelerated sequence one year before completion of their undergraduate degree.

Catalog copy for the Accelerated Sequence course requirements page:

Major in Environmental Systems and Science and Sustainability, Accelerated Sequence

Degree offered: B.S.

Major Requirements

Minimum required credit hours: 81

- BSC 196
- BSC 197
- BSC 201
- CHE 140
- ECO 101
- GEO 100
- GEO 202
- GEO 205
- GEO 238
- GEO 293
- GEO 303
- GEO 398a02
- MAT 145
- PHI 236
- POL 106

Take 1 of the following

- GEO 135
- GEO 142

Take 1 of the following

- PHY 105
- PHY 108
- PHY 110

Take 2 of the following

- CHE 141
- IT 166
- MAT 146
- PHY 109 or PHY 111

Complete 5 courses (min. 15 credit hours) from one single track below

Track A - Generalist

Take 2 from the following courses

- BSC 202
- BSC 211

- BSC 280
- BSC 311
- BSC 375
- BSC 376
- CHE 215 (CHE 216 lab may also be taken)
- CHE 220
- CHE 360 (CHE 361 lab may also be taken)
- CHE 362 (CHE 363 lab may also be taken)
- GEO 276
- GEO 306
- GEO 314
- GEO 318 or GEO 418
- GEO 341
- GEO 344
- GEO 360 or GEO 460
- GEO 361 or GEO 461
- GEO 380 or GEO 480
- GEO 382 or GEO 482
- PHY 318 or CHE 318

Take 2 from the following

- ANT 273
- ANT 375
- COM 274
- ECO 236
- ECO 255
- GEO 317
- GEO 334
- PHI 250
- PHI 310
- POL 236
- POL 252
- SOC 241
- SOC 302
- SOC 330

Take 1 from the following

- GEO 304 or GEO 404
- GEO 305 or GEO 405
- GEO 308
- IT 166

Track B - Water Resources

Take 5 from the following

- BSC 311
- BSC 375
- BSC 376
- GEO 276
- GEO 314
- GEO 317
- GEO 318
- GEO 319
- GEO 360
- GEO 361

Track C - Environmental Systems Analysis

- IT 166

Take 4 from the following

- BSC 311
- CHE 215 (CHE 216 lab may also be taken)
- CHE 360 (CHE 361 lab may also be taken)
- CHE 362 (CHE 363 lab may also be taken)
- GEO 304
- GEO 305
- GEO 306
- GEO 308
- GEO 314
- GEO 319 or GEO 419
- PHY 318 or CHE 318

Track D - Nature and Society

Take 1 from the following

- ENG 145a13
- COM 268
- COM 274

Take 4 from the following

- ANT 273
- ANT 375
- ECO 236

- ECO 255
- GEO 317
- GEO 334
- PHI 250
- PHI 310
- PHY 207
- POL 236
- POL 252
- SOC 241
- SOC 302
- SOC 330

Notes:

- Recommended Graduate Level Courses electives: GEO 423, GEO 465, and GEO 488A04
- To graduate in this sequence, a student must take at least one course for graduate credit.
- Up to 12 hours of approved graduate courses may count for both the undergraduate Geology program and graduate Hydrogeology program. The student must consult with an advisor and the instructor prior to the start of each new course to ensure approval.
- Enrollment in the Accelerated Sequence does not guarantee final admission into the Hydrogeology graduate program.

3. Provide a description for the proposed program.

The Accelerated Environmental Systems Science and Sustainability (ESSS) Sequence allows qualified Illinois State undergraduate ESSS majors to earn a master's degree in Hydrogeology one year after completing the BS. A student in this program will earn 12 hours of graduate credit in their senior year. The remaining graduate degree requirements will be completed with only one, to one and a half years of additional enrollment.

This program is for current Illinois State students only.

4. Provide a rationale of proposed program.

As stated above, the Accelerated Environmental Systems Science and Sustainability (ESSS) Sequence allows qualified Illinois State undergraduate ESSS majors to earn a master's degree in Hydrogeology one year after completing the BS, which is the primary reason for the proposed program. The program can be advertised to prospective undergraduate students as a means to achieve an advance (graduate) degree in a shorter time period. The accelerated sequence will also lead to a slight increase the number of students enrolled in the Hydrogeology MS program.

5. Describe the expected effects of the proposed program on existing campus programs (if applicable).

The proposed sequence builds of the current ESSS program. There will be no new courses for the program. Students in the program will be enrolled ISU students that apply for and are accepted into the accelerated sequence. From a graduate program perspective, the only expected effect of the proposed sequence is to increase, by 1 or 2 students per year, the number of students in the Hydrogeology MS program.

6. Provide a sample four-year plan of study that fulfills the following requirements: 120 hours, 42 senior college hours (200 and 300 level courses), and 39 General Education Program hours or 36 hours with exemption. If the program is a BS program, show the BS-SMT degree requirement. If the program is from CAS, show Foreign Language Requirement (LAN 111/LAN 112). Confirm General Education requirement exemptions on the General Education page of the current Academic Catalog. *4-year plans are not required for minor program proposals.*

Traditional Environmental Systems Science and Sustainability Accelerated master's degree (AMD) (BS)

4-YEAR PLAN OF STUDY

Total number of hours = 114 (general education plus major)

Courses in bold signify general education classes required for major

Year 1 (28 hours)

Fall (14 hours)

ENG 101 – Composition as Critical Inquiry (CC) (3)

MAT 145 – Calculus I (M) (4)

BSC 196 – Biological Diversity (NSA) (4)

GEO 135 – World Geography or GEO 142 – Human Geography (UST) (3)

Spring (14 hours)

COM 110 – Communication as Critical Inquiry (CC) (3)

CHE 140 – General Chemistry (NSA) (4)

GEO 100 – Environmental Systems Science (4)

General Education course (3)

Year 2 (32-33 hours)

Fall (17 hours)

GEO 202 – Evolution of the Earth (SMT) (3)

GEO 205 – Living in the Environment (3)

GEO 238 – Statistics I (3)

BSC 197 - Molecular And Cellular Basis Of Life (4)

Foreign Language (4)

Spring (15-16 hours)

GEO 303 – GIS (4)

ECO 101 – Principles of Microeconomics (3)

PHY 108 or 110 – College Physics I or Physics for Science and Engineering I (4-5)

Foreign Language (4)

Year 3 (35-36 hours)

Fall (17-18 hours)

BSC 201 – Ecology (4)

POL 106 – US Government and Civic Practices (ICL) (3)

Science, Math, IT major elective (4-5)

General Education course (3)

General Education course (3)

Spring (18 hours)

PHI 236 – Values and the Environment (3)

Major elective course (3)

General Education course (3)

University-wide elective (3)

IDEAS course or University-wide elective (3)

AMALI course or University-wide elective (3)

Year 4 (36-37 total hours: 24-25 undergraduate hours and 12 graduate hours)

Fall (15 total hours: 9 undergraduate hours and 6 graduate hours)

Major elective course (3)

Major elective course (3)

University-wide elective (3)

GEO Hydrogeology 400 elective (3)

GEO Hydrogeology 400 elective (3)

Spring (17-18 total hours: 11-12 undergraduate hours and 6 graduate hours)

GEO 293 – Career Preparation in Environmental Systems (1)

Science, Math, IT major elective (4-5)

Major elective course (3)

Major elective course (3)

GEO Hydrogeology 400 elective (3)

GEO Hydrogeology 400 elective (3)

Summer (4 undergraduate hours)

GEO 398a02 – Professional Practice: Internship in Environmental Systems (4)

7. Describe the expected curricular changes required, including new courses. If proposals for new courses have also been submitted, please reference those related proposals here:

No curricular changes are proposed to the ESSS program.

8. Anticipated funding needs and source of funds.

No additional funding is needing. The Financial Implications form has been completed and attached to this proposal.

9. No Does this program count for teacher education?

10. No Is this an Interdisciplinary Studies program?

11. The following questions must be answered.

Yes Have you confirmed that Milner Library has sufficient resources for the proposed program?

No Are more than 120 hours required to complete a degree with this major?

No Beyond General Education, does the major require more than 66 semester hours?

Yes Does this sequence (if in a major) require more than 55 semester hours of courses in the major department/school?

Yes Does this program stipulate specific general education courses offered in the major department/school as a part of the major requirements only if such courses serve as prerequisites for other courses required by the major?

Explain why specific general education courses are required.

GEO 202 Evolution of the Earth
GEO 135 World Geography OR GEO 142 Human Geography

These courses are most suitable to provide important content in areas not available in major classes at the lower levels.

No Does this program stipulate specific course requirements (majors/sequences only) that also satisfy general education and/or IAI requirements?

No Is the proposed program intended to be longer than four years (as indicated by the plan of study)?

N.A. Have letter(s) of concurrence from affected departments/schools been obtained?
A departments/school is affected if it has a program with significant overlap or if it teaches a required or elective course in the program.

12. [Proposal Routing](#)

Routing and action summary for New Program:

1. Geography, Geology, and the Environment Department Curriculum Committee Chair

<u>Matthew Himley (website)</u>	<u>Matthew Himley</u>	<u>11/1/2023 2:42:47 PM</u>
Signature	Print	Date

2. Geography, Geology, and the Environment Department Chair/School Director

<u>Eric Peterson (website)</u>	<u>Eric Peterson</u>	<u>11/7/2023 11:34:50 AM</u>
Signature	Print	Date

3. College of Arts & Science College Curriculum Committee Chair

<u>Todd Stewart (website)</u>	<u>Todd Stewart</u>	<u>11/16/2023 11:58:39 AM</u>
Signature	Print	Date

4. College of Arts & Science College Dean

<u>Rocio Rivadeneira (website)</u>	<u>Rocio Rivadeneira</u>	<u>11/16/2023 4:00:14 PM</u>
Signature	Print	Date

5. University Curriculum Committee Chair

<u>Joshua Newport (website)</u>	<u>Joshua Newport</u>	<u>2/1/2024 10:50:01 AM</u>
Signature	Print	Date

All new programs (majors, minors, sequences) are routed by the U.C.C. to the Academic Senate

Comments

Comments from Version 1 from Matthew Himley (Department Curriculum Committee Chair):
Undergraduate Catalog copy for ESSS major (not Environmental Studies minor) needed in Section 2.

Comments from Version 2 from Eric Peterson (Department Curriculum Committee Chair):
Need to revise catalog copy

Comments from Version 3 from Eric Peterson (Department Curriculum Committee Chair):
Need to modify the title

Comments from Version 4 from Todd Stewart (College Curriculum Committee Chair):
Hi. We voted to approve this proposal pending some updates. So, while I'm hitting the revise button now to allow changes in the system, I am empowered to approve a suitably updated proposal without seeking another vote. The issue we identified is:

(1) The hours in the plan of study don't seem to add up in a couple of places. In year 2, it looks like the undergrad hours add to 35-36, not 32-33. In year 4, it seems that the under grad hours add to 22-23, not 27-28. Please check the plan of study, redo any math that is in error, and then double-check the total undergrad (gen ed plus required) hours (currently: 111) in light of any changes. And, if it turns out that the required undergrad hours add to more than 120, you'll need to answer a question on the form under 11 differently.

Thanks, Todd Stewart, Chair, CAS CC

Comments from Version 5 from Todd Stewart (College Curriculum Committee Chair):
Hi. I'm hitting the revise button again to allow the corrections discussed in some recent emails to the plan of study Y4, and perhaps overall hours in the plan of study.

Comments from Version 6 from Danielle Lindsey (Curriculum Committee Secretary):
The title of this proposal says Traditional ESSS Accelerated Sequence. There is currently only a major for the program. You will need one New Sequence Proposal for a Traditional or General Sequence and a new sequence proposal for the Accelerated Sequence. You will want to list graduate level course options for the accelerated sequence that will count for the up to 12 shared credit hours for both the undergrad and grad programs.

If you have any questions about this please let me know.

Danielle Lindsey

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Comments on Proposal. *(Required if proposal rejected)*

Academic Senate Approver

[Approve](#)

[Reject](#)