# ESE - EARTH, SOCIETY, & ENVIRONMENT

ESE Class Schedule ([link](https://courses.illinois.edu/schedule/DEFAULT/DEFAULT/ESE/))

## Courses

**ESE 100** Sustainable Earth  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/100/))  
Provides an introduction to sustainability that explores how today's human societies can endure in the face of global change, ecosystem degradation, and limited resources. Emphasizes the fundamentals of the physical sciences and the scientific method while also exploring the special impact of sustainability challenges on minority cultures in the U.S. Prerequisite: This course is intended for first and second year students.  
This course satisfies the General Education Criteria for:  
Grand Challenge-Sustainability  
Nat Sci Tech - Phys Sciences

**ESE 103** Earth's Physical Systems  
credit: 4 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/103/))  
Same as GGIS 103. See GGIS 103.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Phys Sciences

**ESE 104** Geology of the National Parks  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/104/))  
Same as GEOL 104. See GEOL 104.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Phys Sciences

**ESE 106** Geographies of Globalization  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/106/))  
Same as GGIS 106. See GGIS 106.  
This course satisfies the General Education Criteria for:  
Cultural Studies - Non-West  
Social Beh Sci - Soc Sci

**ESE 111** Emergence of Life  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/111/))  
Same as GEOL 111. See GEOL 111.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Life Sciences

**ESE 117** The Oceans  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/117/))  
Same as GEOL 117. See GEOL 117.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Phys Sciences

**ESE 118** Natural Disasters  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/118/))  
Same as GEOL 118 and GLBL 118. See GEOL 118.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Phys Sciences

**ESE 120** Severe and Hazardous Weather  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/120/))  
Same as ATMS 120. See ATMS 120.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Phys Sciences  
Quantitative Reasoning II

**ESE 140** Climate and Global Change  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/140/))  
Same as ATMS 140. See ATMS 140.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Phys Sciences

**ESE 143** History of Life  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/143/))  
Same as GEOL 143. See GEOL 143.  
This course satisfies the General Education Criteria for:  
Nat Sci Tech - Life Sciences

**ESE 170** Nature Religion  
credit: 3 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/170/))  
Same as REL 170. See REL 170.

**ESE 199** Undergraduate Open Seminar  
credit: 1 to 5 Hours. ([link](https://courses.illinois.edu/schedule/terms/ESE/199/))  
Special topics in Earth, Society, and the Environment; content is variable. May be repeated if topics vary.

*Information listed in this catalog is current as of 08/2022*
ESE 200  Earth Systems  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/200/)
Interdisciplinary lecture class intended to introduce Earth Systems studies, which focuses on integrating social and natural science approaches to studying the Earth and its environments.

ESE 202  American Environmental History  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/202/)
This course satisfies the General Education Criteria for:
- Humanities - Hist Phil

ESE 208  History of the Earth System  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/208/)
Same as GEOL 208. See GEOL 208.
This course satisfies the General Education Criteria for:
- Nat Sci Tech - Phys Sciences

ESE 210  Social & Environmental Issues  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/210/)
Same as GGIS 210. See GGIS 210.
This course satisfies the General Education Criteria for:
- Social Beh Sci - Soc Sci

ESE 222  Big Rivers of the World  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/222/)
Same as GGIS 222. See GGIS 222.

ESE 254  American People, Places, & Environments  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/254/)
Same as GGIS 254. See GGIS 254.
This course satisfies the General Education Criteria for:
- Social Beh Sci - Soc Sci

ESE 287  Environment and Society  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/287/)
Same as GGIS 287, NRES 287 and PS 273. See NRES 287.
This course satisfies the General Education Criteria for:
- Social Beh Sci - Soc Sci

ESE 289  Environment & Sustainability Field Study  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/ESE/289/)
Group expedition to study environment and sustainability issues at a nearby field site. Includes in-class meetings, student-led presentation, and a field trip that may be short as part of a day or as long as several days. Field trip and field trip fee required. Additional fees may apply. See Class Schedule. Approved for letter and S/U grading. May be repeated in separate terms if topics vary. Prerequisite: For ESE majors, minors, and Sustainability Living Learning Community students. Non majors can apply to the waitlist.

ESE 293  The Anthropocene  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/293/)
Same as ENGL 293. See ENGL 293.

ESE 311  Environmental Issues Today  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/311/)
Seminar exposing students to different disciplinary perspectives on specific environmental issues, as revealed in the scholarly literature. Specific problems will vary from term to term. This seminar helps students make the transition from disciplinary to interdisciplinary thinking.

ESE 320  Water Planet, Water Crisis  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/320/)
Study of the science of water on planet earth, the developing water crisis, and some possible solutions to it. Topics include water’s unique physical and chemical properties; how it profoundly shapes the earth/ocean/atmosphere system; dynamics of oceans, atmosphere, lakes, rivers, groundwater, and ice masses; current fresh water supplies and their distribution on earth relative to population; current and future water crises and the compounding effects of droughts, floods, and global change; and prospects for some technological and economic approaches to easing the crisis. Same as GEOL 370 and GGIS 370.

ESE 333  Earth Materials and the Env  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/333/)
Same as GEOL 333. See GEOL 333.

ESE 350  Sustainability and the City  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/350/)
Same as GGIS 350. See GGIS 350.

ESE 360  Environmental Writing  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/360/)
Equips students to write about the environment for various audiences, with a focus on specific current efforts to promote sustainability on the Urbana-Champaign campus. We will practice effective techniques for each stage of the writing process—from defining topics, to gathering information, to crafting active, engaging prose. Readings will include models of effective environmental writing and "how to" pieces by experts. Research will include visits to campus sites and student-conducted interviews with subjects. Same as ENGL 360. Prerequisite: Completion of campus Composition I general education requirement.
This course satisfies the General Education Criteria for:
- Advanced Composition
ESE 486  Environmental Consulting  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/486/)
Same as GEOL 486. See GEOL 486.

ESE 489  Environment and Sustainability Field Expedition  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/489/)
Group expedition to study environment and sustainability issues at a field site. Includes in-class meetings, student-led presentation, and field trip; expeditions run during spring break, winter break, in mid-May or in intercession; dates depend on location. Field Trip and field trip fee required. Additional fees may apply. See Class Schedule. May be repeated up to 12 hours in separate terms if topics vary.

ESE 401  ESE Capstone  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/401/)
Capstone experience for majors in Earth, Society, and Environment Sustainability. 3 undergraduate hours. No graduate credit. Approved for Letter and S/U grading. May be repeated once.

ESE 445  Earth Resources Sustainability  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/445/)
Introduces the physical (energy, mineral, and soil) resources of the Earth, the environmental consequences of producing and using resources, the controls on resource supplies, and the alternatives to traditional supplies. Focuses on the geological origin and context of resources, the means of exploration and production, the history of production, and sustainability issues related to consumption and depletion. Provides an understanding of why resources can be scarce and expensive, why many are not renewable, and why their use impacts the Earth System. May include field trips. 3 undergraduate hours. 3 graduate hours. Credit is not given for both ESE 445 and GEOL 380. Prerequisite: Junior standing or higher.

ESE 380  Spatial Problem Solving  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/380/)
Same as GGIS 380. See GGIS 380.

This course satisfies the General Education Criteria for:
- Writing Competency

ESE 410  Green Development  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/410/)
Same as GGIS 410. See GGIS 410.

ESE 421  Earth Systems Modeling  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/421/)
Same as ATMS 421, GEOL 481, GGIS 421 and NRES 422. See ATMS 421.

ESE 439  Biogeography  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/439/)
Same as ANTH 436, GGIS 436, IB 439, and NRES 441. See IB 439.

ESE 447  Multimedia Environmental Communications  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/447/)
Students will develop capacities to communicate with a broad audience about sustainability and various environmental topics. Storytelling and clear exposition across multiple types of media will be emphasized. Students will be exposed to the use of blogs, audio podcasts, short videos, infographics and social media applications to communicate effectively about environmental science. Students will learn skills in photography, videography, developing scripts, interviewing and social media best practices. Same as ENGL 467. 3 undergraduate hours. No graduate credit. Approved for Letter and S/U grading. May be repeated once.

ESE 452  Ecosystem Ecology  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/452/)
Same as IB 452 and NRES 462. See IB 452.

ESE 465  Transportation & Sustainability  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/465/)
Same as GGIS 465. See GGIS 465.

This course satisfies the General Education Criteria for:
- Advanced Composition

ESE 466  Environmental Policy  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/466/)
Same as GGIS 466. See GGIS 466.

ESE 467  Multimedia Environmental Communications  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/467/)
Students will develop capacities to communicate with a broad audience about sustainability and various environmental topics. Storytelling and clear exposition across multiple types of media will be emphasized. Students will be exposed to the use of blogs, audio podcasts, short videos, infographics and social media applications to communicate effectively about environmental science. Students will learn skills in photography, videography, developing scripts, interviewing and social media best practices. Same as ENGL 467. 3 undergraduate hours. No graduate credit. Approved for Letter and S/U grading. May be repeated once.

ESE 470  Introduction to Hydrogeology  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/470/)
Same as GEOL 470. See GEOL 470.

ESE 477  Advanced Environmental Writing  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/477/)
Same as ENGL 477. See ENGL 477.

This course satisfies the General Education Criteria for:
- Advanced Composition

ESE 482  Challenges of Sustainability  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/482/)
An interdisciplinary approach to investigating the meaning and practice of sustainability in the contemporary Earth system. As a consequence, students explore the sustainability of crucial resources - water, soil, energy, mineral and the biota - in the context of the social and environmental systems in which these resources are used, including the moral, physical, ecological, political and economic. Same as GEOL 483 and GGIS 482. 3 undergraduate hours. 3 graduate hours. Prerequisite: Junior or senior standing, or consent of instructor.

ESE 486  Environmental Consulting  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/486/)
Same as GEOL 486. See GEOL 486.

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ESE 497  Special Topics in ESE  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/ESE/497/)
Advanced topics course, consisting of seminar or lectures in subjects not covered by regular course offerings; for advanced undergraduates and
graduate students. Possible field study in a prominent geological locality; includes in-class meetings, student-led presentations, and field trip; trips
run during spring break, winter break, in mid-end May; dates depend on location. Additional fees may apply. See Class Schedule. 1 to 4 undergraduate
hours. 1 to 4 graduate hours. Approved for letter and S/U grading. May be repeated in the same or separate terms to a maximum of 12 undergraduate
hours or 8 graduate hours. Prerequisite: Consent of instructor.

ESE 498  Environmental Writing for Publication  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/ESE/498/)
Provides students with both the experience of the real-world editorial process and with a research product (the published essay) that showcases their
professional development as well-informed and persuasive writers on environmental issues. Same as ENGL 498. 3 undergraduate hours. No graduate
credit. Prerequisite: Consent of instructor.

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