

SUSTAINABILITY AND ENVIRONMENTAL STUDIES

Requirements

The Sustainability and Environmental Studies (SES) Major requires eight courses, one sustainability-themed experiential learning component, and a five-course area of concentration.

1. Four required core courses:

| Code | Title |
|---------|--|
| SES 100 | Introduction to Sustainability and Environmental Studies |
| SES 200 | Environmental Analysis |
| SES 301 | Sustainability Practicum |
| SES 401 | Sustainability and Environmental Senior Project |

*Generally speaking, majors enroll in SES 401 - to complete the senior experience requirement: SES requires a one-semester experience. Alternatives include one semester of senior research independently arranged with a faculty member (typically SES 451 -; may be extended to a second semester with the addition of SES 452 -), or an approved senior experience in the area of study for a second major – e.g., DA 401 - Seminar in Data Analytics, GH 400 - Global Health Capstone, or ENGL 453 - Senior Writing Project/ENGL 454 - Intensive Senior Writing Project. Students planning to fulfill the SES senior experience other than through SES 401 - are expected to consult with the SES Program Director prior to registration for the Fall of their senior year.

2. Four distribution courses:

Students are to fulfill the requirements of the distribution categories listed below. No double counting is permitted among these distribution categories or between the distribution courses and the concentration.

See the SES myDenison page for an updated list of courses that may be used to fulfill these categories. Also note that some of these courses have prerequisites.

a. One environmental/sustainability course from the Humanities or the Arts. Examples include:

| Code | Title |
|----------|--|
| AHVC 263 | World Views: Spatial Imagination in East Asia |
| AVHC 302 | |
| CLAS 312 | Ancient Identities |
| ENGL 291 | Environmental Literature |
| ENGL 391 | Nature's Nation |
| SES 256 | Farmscape: Visual Immersion in the Food System |
| HIST 240 | Advanced Studies in Latin American History |
| PHIL 260 | Environmental Philosophy |
| REL 205 | Religion and Nature |

See the SES myDenison page for a complete and current list.

b. One environmental/sustainability course from the Social Sciences. Examples include:

| Code | Title |
|----------|--|
| ECON 202 | Economic Growth and Environmental Sustainability |
| ECON 427 | Environmental Economics |
| COMM 215 | Special Topics in Communication |
| SES 240 | Environmental Politics and Decision-Making |
| SES 262 | Environmental Dispute Resolution |
| SES 284 | |
| SES 334 | Sustainable Agriculture |

See the SES myDenison page for a complete and current list.

c. A pair of Natural Science courses providing environmental and/or sustainability relevance

| Code | Title |
|--|--|
| Examples include: | |
| EESC upper-level environmental science course (e.g., 200, 240, 270, 313) with EESC 100-level prereq) | |
| BIOL 230 | Ecology and Evolution (with BIOL 210/ BIOL 220 prereqs) |
| ENVS 222 & ENVS 223 | Geographic Information Systems I and Geographic Information Systems II (with EESC 100, BIOL 210, or ENVS 102 as prereq/co-req) |
| or EESC 234 | Applied GIS for Earth and Environmental Sciences |
| ENVS 274 | Ecosystem Management (with EESC 100-level, BIOL 210, or ENVS 102 as prereq) |

See the SES myDenison page for a complete and current list.

3. Experiential Component

The SES major requires students to engage in a minimum of one sustainability experience. A list of approved experiential opportunities is available on the SES myDenison webpage, and is updated each semester to provide real-time information. The webpage includes an overview of sustainability themes, concepts, and criteria for the approval of experience options so that students understand the parameters under which this experiential component operates. Experiential activities are long-term (minimum 100 hours) and involve articulated learning objectives. Students may propose alternative experiences for approval by the SES program director, and must be approved in advance. The SES Program Director may seek input from the SES FTE's and/or SES Program Committee regarding approval. Examples:

- 1) Internship of 200 minimum hours (summer) and/or 100 minimum hours (school-year)
- 2) Summer research, on or off campus
- 3) Project-based study abroad programs
- 4) Completion of the Sustainability Professionals Initiative
- 5) Pre-approved non-credit-bearing long-term sustainability project

In order to manage the degree evaluation process for SES majors, students will enroll in a zero-credit course, SES 123-01, to certify completion of their experiential requirement.

4. SES Concentration Options

The Sustainability and Environmental Studies major involves both breadth and depth. In addition to fulfilling the eight core/distribution courses itemized above, each student identifies a concentration, a five-course area of depth relevant to the field. Concentrations fall into two categories: thematic and sub-disciplinary. Students are required to have one area of concentration, and select either a thematic or sub-disciplinary option. Dual concentrations are permissible for double majors where a sub-disciplinary concentration is feasible.

THEMATIC CONCENTRATIONS

Thematic concentrations delve into particular topics that integrate multiple disciplines and approaches, and provide students with skills and perspective on areas of particular interest. At present, SES has identified seven themes, itemized below. A list of qualifying courses, and the structure associated with each theme, is available from the SES office and on the SES myDenison webpage, each semester. Additionally, students may propose individually-designed thematic concentrations in consultation with the SES Program Director. These are reviewed by the SES Program Committee.

Note that students seeking to major in SES are required to submit a concentration proposal early in the Spring of the sophomore year, and should make sure to declare the SES major in order to receive email information regarding the proposal process.

Also note that a maximum of two study-abroad courses from a summer or single semester program may count toward the SES major, and must be approved in advance by the SES Program Director. Off-campus courses may be applied to the distribution course requirements and/or the area of concentration, within the two-course limit.

Established thematic concentrations:

- # Creative Environments
- # Ecosystem Conservation
- # Environmental Decision-Making
- # Global Environmental Justice
- # Sustainable Agriculture
- # Sustainable Design
- # Sustainable Development

Creative Environments

This arts- and humanities-based concentration offers students the opportunity to explore a range of ways humans and societies have represented, performed, mediated, and otherwise imagined built and natural environments. By studying verbal, visual, and performative representations of the environment across periods and traditions, students will think critically about cultural constructions of built and natural environments. By immersing themselves in the imaginative process and creating artistic works that engage the environment, students will reflect on the ways our personal and cultural assumptions about the environment inflect the ways we represent, narrate, and otherwise imagine both built and natural environments. SES majors with this concentration will achieve a solid grounding both in the critical assessment and interpretation of mediated environments and in the creative, imaginative making of such mediations. Students who pursue

this concentration will be well-equipped for jobs in the environmental arts and humanities in particular, but the skills developed in this concentration have broad application to a wide array of career paths.

Ecosystem Conservation

The Ecosystem Conservation concentration offers students an integrated understanding of ecological systems, including theoretical foundations, practical applications, and socio ecological connections. The three required foundational courses provide a conceptual basis of systems ecology and the field, lab and data management skills that are essential for ecosystem practitioners. The subsequent electives in the concentration provide opportunities for application of conservation concepts in complex political and biological environments. SES majors with a concentration in Ecosystem Conservation will be well-prepared for careers in such fields as environmental consulting, land use planning and regulation, land and water stewardship and geospatial analysis.

Environmental Decision-Making

This theme offers a lens onto the process by which environmental decisions are – and can – be made. It is not content-specific, though certainly a student could focus attention on a particular category of decisions – a particular policy area – for some of the coursework chosen as part of the theme. The courses included in the list below are all aimed at better understanding the factors that affect behavior and various frameworks in which environmental decision-making takes place ranging from the individual to the group, from the community to the institutional.

Some courses aim at skill-building while others emphasize a normative exploration or an emphasis on theory-building.

Global Environmental Justice

Global environmental justice is an important field of academic study and the basis for a major form of social action and practice. Questions of justice are multi-scalar and arise within societies and across nations, cultures and species. This theme examines how and why certain populations experience disproportionate environmental and health harms as well as unequal access to resources associated with well being. Key focus areas of the concentration include studying: 1) the structural factors underpinning injustices and inequalities, and 2) the meaningful inclusion of all people in environmental and social decisions impacting their communities. In sum, this concentration involves an interdisciplinary investigation of all three concepts in its title as ones that require careful analysis, and are often contested by activists and scholars: “global,” “environmental” and “justice.”

Sustainable Agriculture

This concentration addresses interdisciplinary perspectives on the issue of food production and food distribution. These perspectives allow students to think critically about the environmental, social, and economic impacts of food and agriculture, writ large. To this end, students are expected to take two science courses related to plant biology, earth systems or climate change. Additionally, students take a course on social movements and/or issues of justice to help identify the social factors that have played a role in the sustainability of food systems (e.g., worker’s rights, labor movement). The last requirement is flexible to include any pre-approved food-related course.

Sustainable Development

In 1987, the Brundtland Commission defined this term for the ages: “Sustainable development is development that meets the needs of

the present without compromising the ability of future generations to meet their own needs" (*Our Common Future*). While its focus may be largely on parts of the world where "needs" are unmet and poverty is endemic, a concentration in sustainable development will also seek to address the systemic nature of ecological, social, historical, and economic crises the world over. Therefore, the courses in this theme are generally international in their orientation and aimed at fostering a culturally sensitive understanding of the distinct challenges faced by developing countries and post-industrial societies in their socio-economic development trajectory.

Sustainable Design

This theme interrogates the ways we construct our built environment, with an eye to approaches that emphasize ecological harmony, local materials, waste reduction, energy efficiency, and stewardship in the form of both cultural and environmental sensitivity. While Denison does not have any curricular dedication to city planning or architectural studies, there are a variety of courses which students can combine into a liberal arts examination of the core issues in these areas of study. Students who select this theme have the option of choosing a technological/ structural or behavioral approach, and should be able to articulate individualized reasoning as to why particular courses are chosen for the orientation of interest.

SUB-DISCIPLINARY CONCENTRATIONS

Students majoring in SES have the option to focus their area of concentration in an environmental or sustainability-focused sub-discipline instead of a particular theme. Examples of disciplines where this may be possible are Art History and Visual Culture, Biology, Communication, Data Analytics, Environmental Writing, Economics, Global Commerce, Global Health, and International Studies. Like thematic concentrations, all sub-disciplinary options involve five courses, and are either subsumed under the heading of the particular discipline (e.g., Biology, Economics) or connect directly with the advanced specialization designated for the field in question (e.g., global focus in Global Commerce, thematic focus in International Studies, area of domain in Data Analytics). All sub-disciplinary concentrations must be developed in close association with the director of SES and the chair/director of the discipline in question. Proposals are submitted in the same way as thematic concentration proposals, and are reviewed by the SES Program Committee for final approval.

Additional Points of Interest

Choosing a Concentration for the SES major

Students who major in SES choose an area of concentration during the sophomore year. Prospective majors are encouraged to discuss possible concentrations with any of the SES-affiliated faculty listed on the SES myDenison web page prior to the sophomore year. The concentration proposal deadline is typically early in the Spring semester.

SES courses and General Education (GE) requirements

Courses taken under the SES heading typically fulfill the Interdivisional (I) General Education requirement. In the case of cross-listed courses, students may choose to enroll under the SES heading to earn the Interdivisional (I) GE, or the heading of the home department to earn the GE designation appropriate for that department. In either case, the course will count toward the SES major or minor. Students are typically able to fulfill a maximum of five GE requirements through the SES major.

Off-Campus Study

Students are encouraged to participate in study abroad programs when appropriate to enhance the concentration area or otherwise supplement course offerings at Denison. Students who want to study abroad should plan to do so during their junior year. Courses taken abroad that serve as substitutes for courses listed above or that are otherwise used to satisfy elements of the SES major must be approved in advance by the SES Program Director, prior to the student's departure for the off campus program. A maximum of two off-campus courses may be used to satisfy requirements in the major for students who spend one semester (or summer) off-campus, and a maximum of three off-campus courses may be used to satisfy requirements in the major for students who spend two semesters off-campus.

Sustainability and Environmental Studies Minor

The Sustainability and Environmental Studies (SES) Minor requires six courses and one experiential component. Regular offerings are listed here for each category. Check with the SES program office or website for a list of special offerings that may be allowed to fulfill each requirement. Also note that some of these courses have prerequisites.

1. SES 100 - Introduction to Sustainability and Environmental Studies - Integrated Environmental Studies
2. SES 200 - Course SES 200 Not Found

Four distribution courses: Students are to fulfill the requirements of the distribution categories listed below. No double counting is permitted among these distribution categories. Specific courses that may count toward these requirements are listed under the distribution requirements for the SES major above, and are available on the SES myDenison webpage, providing real-time information. Note that some of these courses have prerequisites.

3. One environmental/sustainability course from the Humanities or the Arts.
4. One environmental/sustainability course from the Social Sciences.
- 5-6. A two-course sequence in the Natural Sciences. # match with language for major above

The SES minor requires students to engage in a minimum of one sustainability experience. A list of approved experiential opportunities is available on the SES myDenison webpage, and is updated each semester to provide real-time information. The webpage includes an overview of sustainability themes, concepts, and criteria for the approval of experience options so that students understand the parameters under which this experiential component operates. Experiential activities are long-term (minimum 100 hours) and involve articulated learning objectives. Students may propose alternative experiences for approval by the SES program director, and must be approved in advance. The SES Program Director may seek input from the SES FTE's and/or SES Program Committee regarding approval. Examples:

- 1) Internship of 200 minimum hours (summer) and/or 100 minimum hours (school-year)
- 2) Summer research, on or off campus
- 3) Project-based study abroad programs
- 4) Completion of the Sustainability Professionals Initiative

5) Pre-approved non-credit-bearing long-term sustainability project

In order to manage the degree evaluation process for SES minors, students will enroll in a zero-credit course, SES 123-01, to certify completion of their experiential requirement.