Students majoring in environmental science or environmental studies are encouraged to pursue independent study and independent research. Students who pursue independent research and meet other criteria described in this document may be awarded departmental honors at graduation. The procedures for pursuing independent study and independent research are presented below.

View a list of Student Independent Research Topics

This policy applies only to sophomores, juniors, and seniors. First year students who wish to pursue independent study or research should see the college policy on "Independent Study and Research for Freshman" in the College Bulletin.

Up to two courses in independent study and/or research may count towards the major, as long as they also meet the criteria established by the Department. Students also have the option of completing a research experience for transcript notation.
**INDEPENDENT RESEARCH**

**What is Independent Research?**
According to the College Bulletin, an independent research course "should be designed as original research and practice in presenting the results of an investigation. This pursuit must culminate in the student's own contribution to a discipline, whether in the form of fully-supported conclusions or in the form of a creative effort. In other words, the goal of independent research is to answer a question, not simply to gather information. Unlike independent study, independent research projects must have the potential to yield new knowledge."

In the Environmental Studies Department, independent research projects involve field, laboratory, and/or library research. Research questions may come from the independent research student, the faculty research advisor, or both. The work may range from very independent activity by the student under the guidance of a faculty member to collaborative work with one or more faculty members and, perhaps, other students.

**How do I pursue Independent Research?**
Ideally, the process of conducting independent research begins early in a student's career by talking with faculty about research and by generating ideas for possible research topics. Environmental science and studies majors may work on research with faculty from any department. As soon as the first year, and depending on faculty members' schedules and funding, students may have the opportunity to volunteer to participate in research projects or even work on these projects as a paid assistant. At the latest, students should discuss their interest in research with faculty by the midpoint of the semester before the independent research is to begin. For example, students wishing to pursue independent research during the senior year should begin discussions with faculty no later than the spring break of their junior year. Students who are abroad can conduct these discussions with faculty by e-mail. In developing possible topics for independent research, students should keep in mind that they are more likely to find a faculty research advisor for a project if the topic is related to a faculty member's research interests. But it may also be possible for students to develop and pursue projects that are not related to faculty research projects. Once a faculty member has agreed to advise a research project, work should begin, usually with preliminary reading about the topic. The summer is an excellent time for this initial work. Depending on the advising faculty member's schedule and funding, a research student may be able to work with the advising faculty member for a summer of research. To enroll in the independent research course, students must complete the form available from the registrar and obtain the research advisor's signature (it is not possible to register online for independent research). In consultation with the faculty research advisor, the student will choose a brief title for the course that will be included on the student's official transcript.
What are the requirements for Independent Research?
Students enrolled in independent research during the academic year will receive a grade. You should speak with your research advisor to discuss their criteria for assigning grades. Any expectations for written reports, presentations, and/or additional requirements should be established in tandem with the research advisor. At the least, all independent research students will present their research orally at an Earth Issues seminar series at the end of the semester.
### TIMELINE FOR RESEARCH PROCESS

<table>
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<tr>
<th>Task</th>
<th>Expected completion</th>
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<tbody>
<tr>
<td>Student identify research topic, discuss with faculty, and</td>
<td>Mid-semester, Spring junior year</td>
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<td>identify an advisori</td>
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<tr>
<td>Background research, feasibility research</td>
<td>Summer between junior and senior year</td>
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<tr>
<td>Advisor and student meet to register for 550/560 “research” course</td>
<td>Course request period, first semester senior year</td>
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<tr>
<td>Progress report to department (via a 10-minute Earth Issues</td>
<td>End of first semester senior year</td>
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<td>presentation)</td>
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### REQUIREMENTS TO MEET ELIGIBILITY FOR HONORS DESIGNATION

- Required for honors eligibility: student should ask two faculty members if they would be willing to serve on their committee; student should identify a professional conference and submit abstract
  - By September 15
- Required for honors eligibility: student should identify a professional conference and submit abstract by the appropriate deadline
  - Fall semester senior year
- Required for honors eligibility: Student should prepare and submit an “Honors Declaration Form” iii
  - By the last day of classes senior year

  **Committee considers student progress, proposal, and presentation to determine if research should be eligible for honors consideration. The committee will inform the student if they are invited to be considered for honors.**

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<th>Task</th>
<th>Expected completion</th>
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<tr>
<td>Engage in second semester research</td>
<td>Second semester senior year</td>
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<tr>
<td>Student presentation of final results to department</td>
<td>Earth Issues, end of spring semester</td>
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### REQUIREMENTS TO MEET ELIGIBILITY FOR HONORS DESIGNATION

- Student confers with each committee member about their research
  - Beginning of second semester senior year
- Student presentation at professional conference
  - Spring, senior year (typically)
- Student submits thesis to committee
  - Second to last week of classes (that is, two weeks before the last day of classes)
- “Research defense” discussion with committee.
  - First week of exam period

  **The committee will review the thesis, the discussion with the candidate, and the body of work before deciding whether the student should receive honors designation in the Environmental Studies Department. Honors awards must be communicated to College quickly to ensure award is listed in graduation program.**

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<th>Task</th>
<th>Expected completion</th>
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<tr>
<td>If awarded honors designation, student submits final paper,</td>
<td>Before graduation</td>
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<tr>
<td>considering committee/advisor comments in a format appropriate for</td>
<td></td>
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<tr>
<td>library cataloging</td>
<td></td>
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</tbody>
</table>

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1 Students may receive approval from the department to have research supervised by an advisor outside of the Environmental Studies Department. Students should talk about the proposed research with two ES faculty members before asking for approval. If approved, students should ask one of the ES faculty to serve as a department liaison to the research advisor. Research advisors outside of the department should regularly communicate with an Environmental Studies Department liaison about the progress of student research.

1 All honors committees should have at least two Environmental Studies faculty.

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DEPARTMENT HONORS

What are departmental honors?

Departmental honors is a distinction awarded at graduation to students who have successfully completed an outstanding independent research project and achieved a distinguished academic record.

Departmental honors may be awarded only to students who have successfully completed two semesters of independent research on a single project. To be considered for honors the student must have:

- Completed two semesters of independent research. This research must be a significant project commensurate with a full year's worth of work. The student must have clear objectives, an appropriate study design, and explicit conclusions based on thoughtful analysis.
- Orally present their project at the Earth Issues seminar series in both the fall and spring semesters.
- Present your research at a professional conference
- Submit a written report (thesis) on their completed independent research project with references to key literature. The paper must be clearly written in the appropriate format, as determined by the faculty research advisor.
Complete a formal discussion of their research projects with the faculty on their committee. During this discussion, the student must demonstrate a deep understanding of his/her work and its context. Faculty research advisors may set additional requirements.

How do I pursue departmental honors?
Independent research students who are interested in being evaluated for honors must apply for their research to be considered for honors by the end of their first semester of research (Link to form).

After reviewing the proposal and work presented during the fall Earth Issues seminar, the Advisor in consultation with the Department will decide whether or not the candidate is eligible for honors designation. If the student is invited to pursue honors, the student and their faculty research advisor will convene a committee of three members. This committee must consist of at least two Environmental Studies faculty members. After the student completes their final written report and the other requirements for honors designation (see bulleted list above, including presenting at a professional conference) the honors candidate will be invited to an oral discussion of their research with all the members of their committees. The advisors will designate the time and place for the research discussion meetings; normally these meetings will be held during the final exam period, after which a decision on the awarding of honors will be made.

Students awarded departmental honors must submit the final version of their papers for archiving in the College library. This final version must meet the library’s format requirements.

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