

Honors Program in Earth & Oceanographic Science

PURPOSE

The purpose of the Honors Program in Earth and Oceanographic Science is to promote and recognize independent scholarship through direct, sustained engagement with significant Earth and Ocean science research during a student's senior year. Participants in the Honors Program gain experience in diverse aspects of completing a substantive research project, including writing and public presentation.

ELIGIBILITY

Admittance to the Honors Program in EOS is based upon two criteria:

(1) Academic performance in previous EOS courses. Candidates for Honors will have demonstrated in previous EOS courses potential for significant academic achievement, including the ability, independence, and maturity to plan and carry out a substantive research project. At a minimum, candidates normally will have maintained an average grade of no less than B+ in EOS courses, with no grades lower than a B-. This criterion applies to all EOS courses, exclusive of independent studies, taken through the candidate's junior year, both at Bowdoin and at approved off-campus programs.

(2) Identification of a significant research topic and faculty advisor. Candidates for Honors are responsible for proposing a well-defined, original research project that is scientifically significant and can be completed with available facilities and budget within two semesters. A member of the EOS faculty at Bowdoin must agree to serve as primary advisor for the project. Initiative for Honors projects should come from the student, who is encouraged to consult with departmental faculty about possible topics typically no later than Fall Semester of their junior year.

PROPOSAL

Students interested in undertaking Honors during their senior year should submit a written proposal to the proposed faculty advisor (i.e. an EOS faculty member) and Departmental Chair at the beginning of spring semester their junior year. Review of the applications will begin February 1 and will continue through the Wednesday before spring break. The proposal should include:

- project title
- a brief description that includes:
 - the scope of the research
 - the approach
 - the expected results
 - the relevance
- a short reflection on student academic preparation for the proposed research
- a description of tools, instruments, supplies needed to complete the research
- a proposed list of advisory committee members
- a signed approval by the Honors Project Advisor

Students who are participating in off-campus study or are otherwise on leave are responsible for making arrangements to meet this deadline. The Department will normally notify students of their acceptance in the Honors program by the beginning of registration the following week. Students are advised that some possible sources of funding, including summer research opportunities, have deadlines earlier in the junior year (Bowdoin research fellowships late February/early March) and should consult their advisor about competing for such funds. See the Office of Student Fellowships and Research page for the most up to date information and deadlines. (<http://www.bowdoin.edu/student-fellowships/>)

We recognize that some students may realize over the summer that they are interested in pursuing honors. In these rare cases the student is responsible for (1) communicating with an EOS faculty member who is willing to serve as the primary mentor, and (2) writing an honors research proposal (following the same guidelines as above), and (3) submitting that proposal to the advisor and Department Chair by the end of the first full week of class for Fall semester, thereby allowing time for the department to review the proposal and for the student to add Honors to their course schedule before the end of add/drop.

HONORS PROJECT ADVISORY COMMITTEE

Normally, the Honors Project Advisory Committee will include three members, with at least two members drawn from the EOS faculty at Bowdoin. In consultation with their project advisor, Honors candidates may also include faculty from other departments at Bowdoin, or faculty or other professionals from organizations beyond Bowdoin. The student must include a list of the proposed advisory committee in their proposal. Any changes to the composition of the committee must be agreed upon by the student and Project Advisor and confirmed at least two weeks prior to the mid-year presentation. The role of committee members outside of the Bowdoin EOS faculty will include a written feedback of progress reports and thesis drafts submitted to both student and faculty advisor.

COMPLETION OF THE HONORS PROGRAM

The points summarized below outline the normal expectations for Honors projects. Deviations from these expectations or deadlines must be approved in advance by written consent of the Honors Project Advisory Committee. Failure to complete work by the announced deadlines may be grounds for being dropped as an Honors candidate.

- **Summer work.** An Honors project in EOS will commonly include significant work during the summer before the candidate's senior year. The nature and schedule of this work should be clearly stated on the Honors proposal form submitted during the spring semester of the junior year.
- **Enrollment in Honors Project.** Honors projects will normally comprise two semesters of Honors Research completed during a student's senior year. Students enroll in an Honors Project course. Guidelines and forms can be found on the Department Honors page of the Registrar (<https://www.bowdoin.edu/registrar/faculty/advising/honors->

[projects.html](#)). Students will select a designation (solid earth, surface process, oceanography, interdisciplinary) on the form and the Registrar will assign a course number.

- **Regular meetings.** Students are expected to have regular meetings with their project advisor or in advisee groups.
- **Mid-year presentation.** The Friday before the Thanksgiving break, Honors candidates will summarize their progress in an oral presentation to their Advisory Committee, the EOS faculty and staff, and interested students. The presentation will be ten- to fifteen-minutes long, followed by up to ten minutes for questions and comments. Honors candidates are expected to demonstrate familiarity with the primary scientific literature that relates to their project, to describe their progress thus far, and to present the next steps they will take to complete the project.
- **Progress report.** By the last day of classes of the fall semester, candidates will submit a progress report to each member of their Advisory Committee in thesis format. At a minimum, this report will include an introduction, a literature review/background research/previous work section, a methods section, and a references section.

The report and presentation will form two components of the Fall Semester grade and will be used by the Advisory Committee to determine whether the candidate is eligible to continue progress towards Honors during their Spring Semester.

- **Presentation at a scientific conference.** One expectation of Honors projects is that the research will be of interest and use to the broader Earth and Ocean Science community. Honors candidates are therefore required to present their work in an oral and/or poster session at a regional, national, or international conference. These include, but are not limited to:
 - New England Estuarine Research Society at its Fall Meeting, usually in late October
 - Geological Society of America at its annual meeting in October or early November
 - American Geophysical Union at its annual meeting in early to mid-December
 - American Society of Limnology and Oceanography at its Ocean Science or Aquatic Science meeting in February
 - Northeastern Section of the Geological Society of America at its annual meeting, usually in late March (this conference normally occurs over spring break)
 - National Council for Undergraduate Research at its annual meeting in late March or early April
 - Geological Society of Maine at its spring meeting, usually in early April
 - Maine Water Conference

These presentations require submitting a formal abstract of your work several months in advance. Candidates should consult with their Project Advisor about possible venues for presentation and funding sources for fees and travel by the Fall Semester of their senior year.

- **Draft of Honors thesis.** Honors candidates must submit a draft of their thesis to their Project Advisor the second Monday after classes resume following March break. After revisions, a complete first draft of the Honors thesis—including data tables, references and figures—should be submitted to each member of the Honors Advisory Committee no later than four weeks (the fifth Monday) after classes resume following March break. The Honors Advisory Committee will return written comments on this draft no later than the time of the student’s final presentation at Bowdoin.
- **Final public presentation at Bowdoin.** Honors candidates will present a summary of their project in a public talk that is scheduled typically for Friday of spring semester reading period. Students present their research in a twenty-minute talk and answer questions from members of the Honors Advisory Committee, the EOS Department and the general audience.
- **Final copies of Honors thesis.** A final copy of the Honors thesis, revised in accordance with written and verbal comments from the Honors Advisory Committee members, is due to the main library by their deadline (see Registrar’s Honors page: <https://www.bowdoin.edu/registrar/faculty/advising/honors-projects.html>)
- **Copies of project data.** *By the library deadline,* candidates must submit to the EOS Department: (1) an electronic archive copy of the final thesis, (2) an electronic copy of their final presentation, and (3) relevant project data. Candidates may also be required to provide a copy of their field and laboratory notes to their Honors Project Advisor.
 - The Library accepts digital submissions only.
 - The “final draft” is a single pdf that integrates text and figures; pages are numbered and formatted following the same guidelines as a print publication. <https://bowdoin.libguides.com/honors>
 - Please discuss thesis access and embargo deadlines with your advisor before submitting your thesis to the Library: https://bowdoin.libguides.com/ld.php?content_id=64080020
 - Students may purchase bound copies of their thesis through a third-party binder. Please consult with the EOS department coordinator about this process.
- **Publication of research.** Honors candidates are strongly encouraged to submit all or part of their project to a suitable journal for publication and should consult their Honors Project Advisor for guidance. Alternatively, some Honors results will form parts of larger projects, typically submitted as a joint manuscript co-authored by students and their advisor. Faculty publications that utilize data or results of Honors projects will clearly acknowledge the contributions of the Honors students.

EVALUATION OF THE HONORS PROJECT

- **Level of honors.** The EOS Department awards a single level of honors. Honors will be awarded upon the recommendation of the student's Honors Project Advisory Committee, based on evidence for independent work, scientific soundness, originality, completeness, and written and oral presentations.
- **Per Semester Grades.** The Honors Project Advisor will normally assign separate grades to Honors candidates for the Fall and Spring semester courses. These grades will reflect quality of work undertaken in each semester. Awarding of Honors does not necessarily connote that a student will receive the grade of "A" for one or both semesters of their Honors research. If Honors is not granted, each semester will be converted to an Advanced Independent Study.