

ENVS: Procedures and Criteria for Earning Honors

Timeline	Who Is Responsible	Date
Thesis proposal submission, including agreement from JHU affiliate to serve as thesis advisor	Student	Three weeks before start of first semester of senior year (earlier is better)
Thesis proposal decision	Proposal review committee	First day of first semester of senior year
Registration for initial senior thesis course credits	Student	Add date set by Registrar for first semester of senior year
Agreement from at least one other faculty member to serve on thesis committee	Student and faculty advisor	Midterm of first semester of senior year
Progress report on first term of thesis research due	Student	Seven days before end of the term's final exam period
First senior thesis course grade due	Faculty advisor, thesis committee, and DUS	Due date set by Registrar
Major GPA requirement of 3.50 met	Student and DUS	End of first semester of senior year
Detailed outline or complete draft of paper/product due	Student	At least one week prior to oral presentation at end of last semester of senior year
Oral presentation	Student and thesis committee	Last two weeks of classes in last semester of senior year
Final paper/product due	Student	Seven days before end of final exam period
Final senior thesis course grade and honors designation due	Faculty advisor, thesis committee, and DUS	Due date set by Registrar for senior grades

GPA & Thesis Proposal Requirements

A student who wishes to earn honors in the Environmental Science or Environmental Studies major must have a GPA in the major of at least 3.50 at the end of the first semester of their senior year. Prior to initiating a senior thesis, the student is responsible for ensuring they are on track to meet this expectation and should confirm their eligibility with the DUS. The DUS is responsible for verifying that this requirement is met. If the GPA is borderline but the student's thesis progress is otherwise good, the DUS may choose to wait until the end of the student's senior year to evaluate the major GPA.

The student must also successfully complete the 1-credit AS.271.399 Research Design course during their junior year and submit a senior thesis project proposal to the DUS for ENVS *before* the start of their senior year.

If a student wants to do a senior thesis but is prevented from taking the Research Design course for some reason, such as studying abroad, they must petition the DUS for a waiver due to extenuating circumstances and produce a suitable project proposal before the start of their senior year. They may also petition for a waiver if they complete a summer research project through a program such as NSF REU and plan to continue the project under the direction of a JHU affiliate for their senior thesis.

The proposal will be evaluated by the Director and Associate Director of the ENVS program, as well as the student's proposed faculty research advisor, who must be a JHU faculty member or research affiliate. The proposal must meet their approval before the student may register for senior thesis credits.

For an independent research project to be suitable for a senior thesis, it should involve:

- A topic that is related to an environmental issue, environmental science/studies, or sustainability.
- An original research question or a clearly defined goal for an original creative work that is devised by the student or their advisor or a collaborative process involving the student. The question or goal should, when addressed through methods and procedures appropriate to the discipline(s) on which it centers, build upon and expand the boundaries of knowledge or creativity in environmental science, environmental studies, and/or sustainability studies.
- Two semesters (6 credits) worth of work, requiring an average of 9-12 hours of concentrated effort per week on the part of the student.

Thesis Committee

The student's thesis committee shall (at a minimum) consist of the student's primary research advisor, the Director and Associate Director of the ENVS program, and (a) one other faculty member from the EPS Department or (b) a JHU affiliate from another department related to the student's research area or (c) an expert in the field from outside of the university who has earned an advanced degree and who is approved by the primary research advisor.

Thesis Course Credits

A student pursuing thesis research should register for at least two semesters of AS.271.511 Senior Thesis for a total of 6 credits. The course may also be taken during Summer and Intersession. To earn these credits, they will work on their proposed project under the guidance of their faculty research advisor.

Thesis Research

Throughout the project, the student should meet regularly with their faculty advisor, preferably on a weekly basis. The advisor is responsible for providing constructive guidance on the research/creative process to help the student complete the project successfully, including:

- Appropriate background readings,

- Applicable methodologies or skills,
- Procedures for data analysis or creation of artist work,
- How to create high-quality figures for PowerPoint and paper presentations,
- How to write up their findings or present the creative work in an appropriate, discipline-specific way, and
- How to present the project orally in a professional manner.

The student should consult with other thesis committee members on an as-needed basis to enhance their understanding and explore multiple perspectives on their work.

Timeline and Progress Report(s)

Together, the advisor and student should set (and the student should meet) a series of interim deadlines to complete manageable portions of the project by the end of each semester to ensure that good progress is made. It is generally advisable to begin the writing/creative process during the first term in order to allow ample time to write and thoroughly revise a high quality thesis paper or other final product. Likewise, sufficient time should be allotted to prepare and practice the formal oral presentation given near the end of the final term of senior thesis credits.

At the end of each semester of senior thesis credits prior to the final term, the student will write a brief, 1-2 page progress report and submit it to their faculty advisor and thesis committee members to aid in determination of the semester grade. The report should include:

- A summary of the work that has been accomplished thus far, including progress on the goals set at the beginning of the term.
- A plan for how and when the remainder of the project will be completed, taking into account any previously missed deadlines or unforeseen circumstances.
- A sample of the most interesting or significant piece of work or data thus far, such as an annotated bibliography, data table, or figure.

In order for a student to progress to the second term of thesis research, they must earn at least a B in their first semester of thesis credits. If they do not meet this criterion but their faculty advisor is willing to continue supervision, they may choose to register for AS.271.506 Independent Research credits to continue their project without earning honors.

Final Products

Thesis Presentation

The student will give a talk that conveys the goals, methods, findings, and larger significance of their senior thesis research or creative work. The length of time allotted for the talk will be determined by the DUS each year but is generally 15-30 minutes, similar to a professional presentation. The date of the oral presentation will be set *during the last two weeks of classes* in the final term of thesis credits.

This talk will be open to the public, and interested students and faculty will be encouraged to attend. All members of the thesis committee will attend the talk in person or virtually. At the end of the student's presentation, public attendees may ask questions. In private after the

presentation, the student may be asked additional questions and given suggestions by their committee for how to improve their work. The committee will then confer and decide whether the work merits honors and a B+ or better course grade according to the criteria listed below and contingent upon the student incorporating the committee's suggestions into the final paper/product.

Thesis Paper/Product

The culmination of the thesis will vary depending on the nature and disciplinary focus of the project but could take the form of:

- A scientific-style paper detailing the research question, methods, findings, and larger significance of the project,
- A humanities-style paper analyzing or critiquing the subject of the research question, or
- A creative work such as a piece of fictional writing, a play, an art installation, or a portfolio of photographs. For works that are non-verbal, some form of written context should also be provided by the student to explain their intention and methods.

Examples of past senior theses created by ENVS alumni will be made available to the student as a general guide, but the faculty advisor should also set specific requirements.

A detailed outline or complete draft of the thesis paper or other agreed-upon product (whatever is specified by the faculty advisor) must be finished *at least one week in advance of the scheduled thesis presentation* in order to enable the student to prepare properly for the oral presentation. This means a deadline set within the second- or third-to-last week of classes.

After the thesis presentation, the student has until *seven days before the end of the final exam period* to incorporate the suggestions of their advisor and committee members into their final paper/product. They should then submit the final version of the paper/product to their primary advisor and thesis committee for final evaluation. The final grade for the thesis course must be submitted by the deadline set by the Registrar for receipt of senior grades.

Criteria for Honors in Environmental Science and Environmental Studies

- The student has completed the requirements for the thesis to the satisfaction of the committee, and the work as a whole goes beyond what would be expected of a typical non-thesis undergraduate project.
- As applicable to the particular project, the depth, breadth, and quality of the background research, data, analysis, and/or creative work is very good to excellent.
- The oral presentation and writing for the project demonstrate effective communication skills.
- The overall quality of the final paper/product is rated as very good or excellent by the thesis committee and research advisor.
- Although it is not required to earn honors, at the highest level of excellence, the paper or other product, with some adaptation, would be suitable for publication in an undergraduate research journal, professional journal, or other equivalent forum.

Thesis Course Grades

The course grade for each semester of senior thesis credits is determined by the faculty advisor, in consultation with the thesis committee. Grades should be assigned using the guidelines in the following tables, with plus or minus grades awarded for performance that is intermediate between the various levels.

In order to qualify for honors in the major, the grade earned by the student for their final senior thesis course credits must be a B+ or better, indicating that their thesis committee has evaluated the quality of their work to be very good or excellent. If a student earns a B+ or better and they meet the GPA requirement, they will be awarded honors.

Grading rubric for AS.271.511 Senior Thesis grades prior to final term of the project:

A	<ul style="list-style-type: none">● The student's engagement with the project is active and consistent, and they are making good progress, meeting the interim deadlines set with their advisor early in the term.● The student can describe their research question or creative purpose, data collection methods (if applicable), and the current status of the project in an articulate and accurate way, demonstrating a strong understanding of the underlying concepts and the research/creative process underway.● The student has a clear and realistic plan for finishing the project on time.● The quality of the student's work thus far is high.
B	<ul style="list-style-type: none">● The student's engagement with the project is fairly active but may be somewhat inconsistent. They are making acceptable progress, meeting most of the interim deadlines set with their advisor early in the term.● The student can describe their research question or creative purpose, data collection methods (if applicable), and the current status of the project in an understandable way but may still be mastering some of the underlying concepts or aspects of the research/creative process.● The student has a plan for finishing the project on time.● The quality of the student's work thus far is acceptable.
C or lower	<ul style="list-style-type: none">● The student's engagement with the project is minimal and sporadic, and they have not made acceptable progress, missing several of the interim deadlines set with their advisor early in the term.● The student cannot describe their research question or creative purpose, data collection methods (if applicable), or the current status of the project in an articulate and accurate way, indicating that they do not have a firm understanding of the underlying concepts or the research/creative process.● The quality of the student's work (if they have produced any) is not adequate. <p>Note: In this case, the student will not be allowed to continue with their senior thesis, although they could continue doing independent research for credit if the faculty advisor is willing to supervise it.</p>

Grading rubric for AS.271.511 Senior Thesis grade for final term:

A	<ul style="list-style-type: none"> ● The student's engagement with the project is active and consistent, enabling them to complete the project and achieve the goals that were set with their faculty advisor early in the term, taking into consideration any setbacks that may have occurred. ● The quality of the oral presentation given at the end of the term is excellent, demonstrating careful preparation and good oral skills, as well as accurate presentation of the project, its findings or outcomes, and its larger significance. The visuals that accompany the talk are also of high quality. ● The quality of the final thesis paper or product is excellent, demonstrating careful attention to detail and (as applicable) a strong understanding of the relevant literature, a high level writing and organizational skills, sound data analysis, logical reasoning, and/or creative imagination. Any figures in a paper are of high quality.
B	<ul style="list-style-type: none"> ● The student's engagement with the project is fairly active but may be somewhat inconsistent, enabling them to complete much of the project but falling short of some of the goals that were set with their faculty advisor early in the term, even taking into consideration any setbacks that may have occurred. ● The quality of the oral presentation given at the end of the term is adequate to good, demonstrating some degree of preparation and oral skills, as well as accurate presentation of the project and its findings or outcomes. The visuals that accompany the talk are of good quality. ● The quality of the final thesis paper or product is good, demonstrating (as applicable) a moderate level of writing and organizational skills, a sufficient level of analysis, logical interpretations, and/or some degree of creative imagination. Any figures in a paper are of adequate quality. ● The student's overall performance amounts to a good attempt at independent research but falls short of the high quality necessary to merit honors in the major. <p>Note: At least a B+ is required for the student to earn honors in the major, in which case, their performance in at least some aspects should be in the A range.</p>
C or lower	<ul style="list-style-type: none"> ● The student's engagement with the project is minimal and sporadic, so they were unable to complete the full scope of the project or meet the goals that were set with their faculty advisor early in the term, even taking into consideration any setbacks that may have occurred. ● The quality of the oral presentation given at the end of the term is unacceptable, demonstrating little preparation or oral skills or inaccurate presentation of the project, its findings or outcomes, or its larger significance. ● The quality of the final thesis paper or product, if it is completed, is mediocre to poor, demonstrating a low level of attention to detail and (as applicable) weak writing and/or editing skills, insufficient analysis, illogical interpretations, and/or a lack of creative imagination or skill. ● The student's overall performance amounts to an inadequate to poor attempt at independent research that falls well short of the quality necessary to merit honors in the major.