Special Honors Thesis in Biology  
Academic Year: 2018/2019

Guidelines for writing the proposal and the thesis.

1. **Requirements**
   a. To be eligible for Special Honors in Biology according to University Regulations, majors in Biology must maintain a cumulative GPA in the Biological Sciences of 3.5, and an overall GPA of 3.0. Students with records that fall below these levels after initiating an honors project will not be awarded special honors.
   b. Students will submit a transcript to their research advisor prior to beginning honors work.

2. **Deadlines:**
   a. The **research proposal** will be emailed as a single Microsoft Word document, not a PDF (including signed title page) to Biology department at biology@gwu.edu (please quote “Honors Proposal 2019” in email subject line) on the Friday of the fourth full week of the fall semester (**September 21, 2018**). The filename should be the student’s last name plus proposal (example: SmithProposal.doc). The email must be received by 5pm on the due date. **Late submissions will not be accepted.** Proposals will be electronically assigned to members of the reader committee for evaluation. The exact deadline for the proposal will vary from year to year and will depend on whether the fall semester begins with a complete or partial week. Students should submit a final draft of the proposal to their research advisor a week or more before the submission deadline for corrections, edits and approval.

   b. Students will present an **oral report** of their results to the faculty at the end of the spring semester. Presentations will be scheduled by the organizer(s) of the departmental seminar series.

   c. The **thesis** will be emailed as a single Microsoft word document (including signed title page) to Biology department at biology@gwu.edu (please quote “Honors Thesis 2019” in email subject line) by **5pm on April 19, 2019 (submission deadline)**. **Late submissions will not be accepted.** The filename for the thesis should be the student’s last name plus thesis (example: SmithThesis.doc). Honors theses are **due to the advisors** for corrections and approval by **April 12th**. However, students are **strongly encouraged** to submit a final draft of the thesis to their research advisor a week or more before the submission deadline for corrections, edits and approval. Theses will be electronically assigned to members of the reader committee for evaluation. The oral presentation is scheduled for **April 26, 2019** (the exact time and venue for oral presentations will be announced in the spring semester). Exceptions to set deadlines cannot be made by individual faculty members and must be submitted to the entire faculty for approval. Students should prepare Power Point slides conveying essential information about their research projects such as background and rationale for the study, testable hypothesis (if hypothesis-driven), methods, results / main findings and conclusions. Each student will have 10 minutes to present his/her honors project followed by Q/A (5 min).
3. Format

a. Proposal

The proposal should be written as a research proposal that includes

- background information (i.e., a brief review of the literature) ending in a statement of the question to be addressed
- description of the experiment(s) to be conducted including a description of the method(s) to be used. References to publications that describe the methods are OK to include, but the proposal should also include a brief description of those methods.
- a working hypothesis or prediction of the results; preliminary results should be included if available
- a discussion of the data including the significance of the results
- a list of references cited (including all authors, date, title, journal, volume, pages). Citations for information (except for sequence accession numbers) from the internet are not acceptable
- figures and figure legends, if available, can be integrated into the text or placed at the end.

The proposal should be written so that all faculty members in the department can understand it. Keep in mind that faculty have research interests that range from field ecology, to systematics, to cell and molecular biology and biochemistry. These faculty will be members of the Honors Readers Committee who will decide whether each proposal is acceptable or not, or needs to be revised. If some of the readers can’t understand it, they will require a revision.

The format for the cover page for the proposal is similar to that for the final thesis. An example is shown at the end of this document.

b. Thesis

The manuscript should be written in a format appropriate for submission to a journal for publication. The choice of journal is to be determined by the student and the advisor and should be based on the research topic. A copy of the journal page(s) that describe “Information for Authors”, which can be found in all journals, must be included as a supplement at the end of the thesis, which should be submitted as a single document. The instructions to the authors should be followed in formatting the thesis. The breadth of backgrounds of the faculty in Biology should be kept in mind when writing the proposal and thesis. Documents should be written to accommodate readers who are versed in fields as diverse as ecology and gene regulation.

The format for the cover page for both the proposal and the thesis is shown below. The advisor(s) who directed the research, and their departmental affiliation (if not in Biology), plus the departmental advisor (if different) must be listed on the title page. Signatures of all advisors on the title page will indicate that they have read and have approved the thesis for submission to the faculty.

Methods may be cited “as described by…. (citation)”, however a brief description of the method must be included.

Although most journals state that figures must be submitted as glossy prints, the departmental faculty will accept xerox copies of figures.
Because citations for information on the internet (except for sequence accession numbers) are not acceptable in manuscripts submitted for publication in many journals, citations of this type are not acceptable in honors theses.

4. Signatures

If the student is working in a lab outside the department, they are required to identify a departmental research advisor to approve the proposal and thesis. The departmental advisor is someone who is at least peripherally familiar with the research being done and may not be the same person as the academic advisor. The departmental advisor must also sign the proposal and thesis title page.

The signatures on the cover page of the proposal or thesis are required and indicate that the advisors have read and approved the document. Signatures are also intended to indicate that the student wrote the proposal or thesis themselves and did not acquire text from a grant proposal or publication written by someone else.
Title of the Thesis (or Proposal)

Student’s name
Email address or other contact information

Thesis (or Proposal) submitted for Special Honors in Biology
Date of Submission

This thesis has been formatted for submission to journal name
(the line above is only to be used for the thesis, and is not relevant to the proposal)

signature indicating approval
Name of research advisor (if not in Biology) date
Title
Departmental affiliation
University
Email address or other contact information

signature indicating approval
Name of departmental research advisor (if different from above) date
(note: the academic advisor and research advisor may be different)
Title
Department of Biological Sciences
George Washington University
Email address or other contact information