

BIOLOGICAL SCIENCES HONORS PROGRAM
EAST TENNESSEE STATE UNIVERSITY

GUIDELINES FOR SENIOR HONORS THESIS IN BIOLOGICAL SCIENCES

The Senior Honor's Thesis represents an in-depth, capstone experience designed to provide honors students with opportunities to develop a deeper knowledge of biological sciences, a closer intellectual interaction with faculty, and more complete preparation for their career goals. The Senior Honor's Thesis must use primary materials in the field of study as well as secondary sources, such as biography and criticism. The thesis should represent a student's most sustained research as an undergraduate. It must be academically honest and in full compliance with ethical guidelines. **An approved Senior Honors Thesis that has been orally presented in public is required for graduation as a Biological Sciences Honors student from East Tennessee State University.**

ENROLLMENT

Typically, the Senior Honors Thesis is a yearlong project for which the student enrolls for three hours credit during each of the two semesters of the senior year. Initial preparation for the thesis should begin the previous year, however, and should follow the approved timetable. A typical schedule requires that the student learn the basic techniques and complete the majority of library during the spring semester of the junior year. The student should complete the prospectus by or during the summer prior to the senior year, complete initial analyses by the end of the fall semester and complete the writing of the thesis during the spring semester. The student should plan on working a minimum of nine to twelve hours per week on the thesis project. Throughout the project, each student should engage in careful planning, thorough research, thoughtful analysis, good writing, and enthusiastic work.

THESIS ADVISORY COMMITTEE

A senior honors student should choose a thesis committee in conjunction with the Biological Sciences Honors Coordinator. The committee must consist of a thesis director and a second reader, both from the faculty of the Department of Biological Sciences, and a second reader who must come from outside the department. The thesis director is responsible for directing the thesis and seeing that the student meets all deadlines and fulfills the expectations of the prospectus. A thesis director will receive one hour of DIS on workload reports, up to a maximum of three hours per semester for three theses.

THESIS FORMAT

The thesis should be written in the style of a manuscript that may be submitted for publication in a scholarly journal. It must follow the research guidelines established by the

Department of Biological Sciences. The final copies must be permanently bound, but they may have a soft cover and/or spiral binding if the student chooses. Most students have binding done at a photocopying business and have four copies made: a required copy to be submitted to the Biological Sciences Honors Coordinator, a required copy to be submitted to University Honors Programs, a copy to for the student to keep, and a copy to be given to the thesis professor as a courtesy.

The thesis should involve the student in intensive research in the biological sciences. It is typically twenty to thirty pages in length, but may be longer; the emphasis should be on quality rather than quantity.

PROSPECTUS

The senior honors student should write a 2-5 page prospectus clearly describing the objective of the thesis, its scope and limitations, and a preliminary bibliography comprised of a minimum of 7-12 sources to indicate that sufficient secondary material exists to support the thesis project. The prospectus should be signed by both the student and the thesis professor and should be shown to all faculty members who are asked to serve as readers.

RECOMMENDED TIMETABLE

The following timetable establishes deadlines based on spring thesis registration. In the event of an alternative registration, deadlines should be adjusted accordingly.

Junior Year, Spring Semester

1. January 15 Choose a thesis director in consultation with the Department of Biological Sciences Honors Coordinator.
2. February 15 Meet with the thesis director and discuss a prospectus.
3. August 15 Sign the completed prospectus and present it to the thesis professor for his or her signature. Choose second and third readers in consultation with the Biological Sciences Honors Coordinator. Give copies of the signed prospectus to the coordinator and thesis committee members.

Senior Year, Fall Semester

4. Enroll in Honors Thesis, conduct research

Senior Year, Spring Semester

5. Enroll in Honors Thesis, finish data collection, write thesis
6. February 15 Present the first draft of the thesis to the thesis director for review.
7. March 15 Present the second draft of the thesis to the thesis professor and the readers for review.
8. April 1 In conjunction with the Biological Sciences Honors Coordinator, set a date for a thesis presentation to be completed (e.g. departmental seminar) to be complete before April 20. Arrangement for publicity. Alternatively, the student could present the research at the ETSU-sponsored Appalachian Student Research Forum and/or a regional or national meeting of an appropriate society in biological sciences.
9. April 15 Submit two bound copies of the completed thesis, signed by the thesis director, to the Biological Sciences Honors Coordinator—one for the department and one for the University Honors Program. You also may want to give a copy to the thesis director and keep one for yourself.

PROSPECTUS GUIDELINES

The prospectus should be a description of the proposed research. It should include background information that will highlight the significance of the project; a brief description of the experimental design and methods; specific aims of the research, including a statement of the problem usually in the form of a hypothesis to be tested; and an outline of the proposed timetable. In writing the prospectus, keep in mind that it is good to be up front in what you will cover and what you will omit.

The thesis may follow the format guidelines for any peer-reviewed biology journal or the ETSU M.S. thesis guidelines for biological sciences. The formatting should be consistent throughout the thesis (e.g., for tables, figures, and reference citations). Generally, the thesis will contain four chapters (Introduction, Methods and Materials, Results, and Discussion). Detailed information (i.e., protocols, recipes, data) may be included in appendices.

revised 1 February 2005