

## Health Science Scholars Guidelines for Thesis Faculty Mentors

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### About the Health Science Scholars Program

HSS is a multidisciplinary honors program for undergraduates in the College of Natural Sciences who have a strong interest in the health professions. Each year it brings in a freshman class of about 50 students. With a few exceptions, students pursue a Bachelor of Science and Arts (BSA) degree in their chosen major field.

### The Capstone Experience

By the end of their second year, HSS students must identify a “Capstone experience”—an experiential learning and/or service opportunity such as an internship, volunteering, or lab work related to their interests. They must dedicate a *minimum* of 200 hours to this experience. During their final year, students write a Capstone thesis related to or inspired by this experience.

Students who pursue conventional science research in their major field of study (or approved by the faculty honors advisor in their major) are on the **Option 1** track, which is the departmental honors track. These students must satisfy their major department’s expectations for a Capstone project and thesis in order to complete the HSS program.

Students who pursue an internship, volunteering program, or other practicum Capstone experience are on the **Option 2** track. Option 2 also applies to students who are working in a lab or research unit outside of Natural Sciences. Option 2 students take the HSS program’s thesis sequence and meet the programmatic expectation for the thesis.

### The Thesis and Thesis Hours

All students must secure the support of a UT faculty member to supervise their thesis. The thesis should be a persuasive, well-reasoned, evidence-based paper that answers a question (or interrelated set of questions) aligned with the student’s Capstone experience. Students will engage in and contribute to scholarly conversations on their thesis topics.

During their final year, students on the **Option 1** track take thesis hours (usually 379H) in their major field of study. Students in departmental thesis hours work with their P.I. and lab group to ensure timely completion of the research project, the thesis, and the thesis presentation. The typical Option 1 thesis is a scientifically formatted paper aimed at specialists in the student’s field of research. However, the thesis must meet the honors thesis requirements for the student’s major department; official readers and graders include the P.I. and the honors faculty advisor.

Students on the **Option 2** track will take NSC 323 (in the fall) and NSC 371 (in the spring) of their final year. Students in these courses meet weekly in class to brainstorm and share feedback. The seminars provide structure and support for compiling a bibliography, drafting the thesis, and preparing for the thesis presentation. The typical Option 2 thesis is about 30-40 pages, double-spaced, plus references and any graphics or appendices the student may include. It should be written for a well-educated but non-specialist audience. Option 2 thesis projects may involve original data collection, or they may present original analysis of existing data or scholarly literature.

Some students will revise their theses for publication, either in an undergraduate research journal or in a discipline-specific journal related to the field (with their faculty mentor's support).

### **The Role of the Faculty Mentor/Thesis Supervisor(s)**

The HSS program encourages students to seek multiple mentors for their Capstone projects, but requires students to secure the support of at least one UT faculty member who is willing to serve as the primary thesis supervisor. This primary mentor is usually tenured or tenure-track, but students may gain approval for a non-tenure-track supervisor who is actively engaged in research. For Option 1 students, this faculty member is their P.I. Option 2 students seek out faculty in departments and research units related to their interests in order to identify mentors who bring different perspectives to their topics. Ultimately, the student will ask one (or sometimes two) of these professors to supervise the thesis. Beginning with students graduating in spring of 2021, either a secondary mentor/second reader or a co-supervisor will be required. Mentors help guide the student's research; they help brainstorm directions, approaches, and methodologies.

**Option 1** students should meet individually with their P.I. in addition to lab group meetings that the student may attend. The P.I. should help the student identify an appropriate project that the student can take responsibility for within the lab setting—this typically happens during fall or early spring of the student's third (pre-thesis) year, but may occur earlier. In the spring of the student's final year, the P.I. should be willing to help the student stay on track with writing the thesis and should offer feedback on a draft of the thesis well before the department's submission deadline.

**Option 2** students should set up meetings with mentors throughout the third (pre-thesis) year and identify a primary thesis supervisor or supervisors by the end of that academic year. The student should meet with the primary mentor occasionally to discuss readings, topics, methods, and original data collection (if applicable) appropriate to the discipline. At minimum, the thesis supervisor should be willing to meet (or communicate) with the student at least once per month during the fall of the thesis year and at least every two weeks during the spring of the thesis year. In addition, the thesis supervisor should be willing to complete a brief progress report, comment on a rough draft of the thesis in April, and grade the final thesis in May of the student's senior year. Loose grading guidelines will be provided by the seminar instructor. The student is responsible for maintaining contact with the faculty mentor, setting up meetings, and asking for discipline-specific guidance.

Co-supervisors may be appropriate if the students' mentors need to share time commitments or disciplinary expertise, or if the student identifies one mentor who is not a tenured or tenure-track faculty member in an academic department at UT.

Questions about the Capstone experience and thesis supervisor eligibility may be directed to Madison Searle, Director of CNS Honors & Scholarships. Questions about the thesis seminar and thesis grading for Option 2 may be directed to Rebecca Wilcox. Questions about Option 1 or other academic considerations may be directed to the student's academic advisor, Mark Hemenway.