Health Science Scholars
Guidelines for Thesis Faculty Mentors

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About the Health Science Scholars Program
Health Science Scholars is an honors program in the College of Natural Sciences devoted to exceptional students with an interest in health professions. The HSS program is highly selective, enrolling only about 50 students each year. Criteria for admission include a strong interest in science (especially in medicine and health science fields); a high level of academic accomplishment; a strong record of community service; high SAT scores and class rankings; a strong work ethic; students’ sense of ownership over their intellectual pursuits; and an awareness of how their own interests overlap with current issues in health sciences. Admitted students beginning with the 2014-15 academic year will pursue a Bachelor’s of Sciences and Arts (BSA) degree. HSS students are automatically enrolled in the Freshman Research Initiative.

The hallmark experience of the Health Science Scholars program is a Capstone project that requires students to create an original body of work based on intensive internships, lab research, community service, or other experiential learning opportunities that relate to their interests in the health sciences. Students are expected to commit significant time and effort to their Capstone experience, usually lasting a minimum of one full year, though usually more. They are supported by honors seminars that guide them through the Capstone development process. The schedule of courses supporting the thesis process is outlined below—see “The Thesis Seminar.”

The Thesis
In their final year in the program, students write a Capstone thesis inspired by their Capstone experience and supervised by a tenure-track UT faculty mentor. To fulfill the Capstone requirement for HSS, students may choose to follow a departmental honors program and write a departmental research thesis in their major (Option 1); or they may complete an experience such as an internship, practicum, or significant volunteer project and write a thesis on a question related to this experience (Option 2).

Depending on the discipline, HSS theses may be based on either primary or secondary research, employing a wide range of methodologies appropriate to the student’s area of study. Students are expected to seek guidance on disciplinary conventions from their mentors.

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 are expected to engage in and contribute to scholarly conversations on their topics. The student’s work must be original, in that it must highlight the student’s point of view, foregrounding the
student’s own insights and analysis in addition to demonstrating an understanding of the intellectual context of the work. The student must present individual conclusions about the work in order for the thesis to be successful. The thesis should be written for well-educated, intelligent readers who are not necessary experts in the student’s particular field of study.

The Honors guideline for thesis length is 30-40 pages (double-spaced, 1-inch margins, 12-point Times New Roman font), not including the references section, cover page, or any appendices, tables, or graphs. The thesis should employ a format and citation style appropriate to the student’s discipline. It is expected to be a polished document of nearly publishable quality.

The Role of the Faculty Mentor
The primary responsibility of the faculty mentor is to play an active role in guiding the student towards appropriate sources, methods and approaches to the thesis topic. This includes meeting and/or communicating with the student regularly, advising the student on appropriate research directions, providing feedback on written work, and suggesting revisions that can be incorporated into the final thesis. Students are expected to submit evidence of progress to their mentors; for Option 2 students, a schedule of benchmarks will be provided in the thesis seminar (see below). It is generally best if the student and mentor agree on a timeline for the completion of incremental stages of the project.

In addition to providing thesis guidance, mentors will be asked to complete a very brief progress report partway through the spring semester during which the student takes the thesis seminar. This online form can be completed in just a few minutes. The form will be emailed directly to the faculty mentor and will provide an opportunity for frank assessment of the student’s progress and an avenue to express concerns to the thesis seminar instructor. This form is typically accompanied by a partial first draft of the paper. In addition, mentors are asked to recommend a final grade for the student’s thesis and to sign the title page of the completed thesis.

A list of optional talking points the mentor may wish to address with a student is appended to this document.

The Thesis Seminar
In the second semester of their fourth year, students in HSS enroll in one of two options for their thesis-writing course: NSC 371: HSS Thesis Seminar for Option 2 students or 379H: Honors Tutorial Course in their home department for Option 1 students. NSC 371 offers students a sense of community, a forum for discussing thesis progress, and information and guidance necessary for timely completion of their Capstone thesis projects. The instructor usually meets individually with students at least once over the course of the semester—more if the student asks. The departmental honors thesis course is typically less structured, relying on the student and faculty mentor to work closely together to ensure timely completion of the thesis.

Students enrolled in the NSC 371 thesis course are required to submit evidence of progress over the course of the semester. Depending on the seminar, such evidence may include an outline, abstract, bibliography, rough draft, research poster, presentation, and/or other incremental or nested assignments. Thesis mentors are welcome to require additional evidence of progress as they see fit.

The thesis seminar is the final course in a series of honors seminars aimed at supporting the development of students’ critical thinking skills, their exploration of possible topics, and their
successful completion of Capstone experiences. The schedule of required HSS honors courses over four years is outlined below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td><strong>First Year</strong></td>
<td><strong>UGS 303: OAS and NSC 110H: HSS 1st Year Seminar</strong></td>
<td><strong>NSC 110H: HSS 1st Year Seminar</strong></td>
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<tr>
<td><strong>Second Year</strong></td>
<td><strong>NSC 110H: HSS 2nd Year Seminar (topic choice)</strong></td>
<td><strong>NSC 109: Capstone Planning Seminar</strong></td>
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<td><strong>Third Year</strong></td>
<td><strong>NSC 110H: CNS Honors Seminar (topic choice) and Third-Year Workshops</strong></td>
<td><strong>NSC 110H: CNS Honors Seminar (topic choice) and Third-Year Workshops</strong></td>
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<td><strong>Fourth Year</strong></td>
<td><strong>Option 1: Dept. Honors Tutorial (379H) and NSC 109</strong> <strong>Option 2: NSC 109: HSS Thesis Preparation Seminar</strong></td>
<td><strong>Option 1: Dept. Honors Tutorial Course (379H) and NSC 371: HSS Capstone Thesis Seminar</strong></td>
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**Evaluation of Student Work**

A full range of grades, from A to F, may be assigned for a Capstone thesis. An “A” thesis should be significantly more substantial than an “A” term paper, but is not expected to demonstrate graduate-level work. An Option 1 thesis typically presents original data collected in the lab. Though an Option 2 thesis does not need to present original data, it does need to present an original argument based on the student’s own synthesis and analysis of existing information.

In our experience, most HSS students write theses that exceed the minimum standards of acceptability. For Option 1, the student’s PI typically evaluates the thesis and submits the student’s grade. For Option 2, the thesis receives a passing grade when the faculty mentor and the NSC 371 instructor agree that it deserves at least a D. If the thesis is found unacceptable or unfinished, the NSC 371: Capstone Thesis Seminar instructor may assign an incomplete and allow the student to finish by a date convenient to the faculty mentor. Otherwise, it will be assigned an F. Incompletes are rarely assigned and are only considered appropriate in extenuating, non-academic circumstances.

The final grade in the NSC 371: Capstone Thesis Seminar consists of two components: the Final Thesis (the grade assigned to the student’s work by the thesis faculty mentor and NSC 371 instructor), and the Thesis Seminar (the grade the student earns for timely completion of incremental assignments, presentation of work, participation in class activities, etc.). If a student misses multiple meetings and deadlines in the thesis class, his or her final grade in the course may be lower than the Final Thesis
grade assigned by the thesis faculty mentor and NSC 371 instructor. Additional details are available in the Thesis Seminar syllabus.

Students pursuing departmental honors are responsible for discussing grading guidelines for their honors thesis course with their faculty mentors early in the semester.

Because of the diversity of HSS thesis topics and formats, no one set of grading standards can be applied universally. Faculty mentors assess thesis quality based on the standards for their fields, which varies across disciplines. Below are the most general guidelines for grading an HSS thesis.

- A grade of A (exemplary) on the final thesis should demonstrate thorough research through a familiarity with authoritative sources and methods of the discipline, a well-reasoned analysis of the research methods and sources used, direct application of the research to the argument being made, a cogent conclusion based on the research, and superior written presentation of the thesis argument.
- A grade of B (better than required) should demonstrate all of the above, but may use fewer or less appropriate research sources and methods, and sufficient (rather than superior) written presentation.
- A grade of C (as required but no better) will indicate a basic grasp of the data and appropriate sources, limited application of the research towards the argument being made, and merely acceptable written style.
- A grade of D (barely passable) indicates minimally acceptable research findings in addition to poor analysis and writing standards.
- A grade of F is appropriate where the thesis represents a crudely thrown-together, last-minute effort or even evidence of unoriginal work.

For Option 2, the faculty mentor must submit a recommended grade for the final thesis to the thesis seminar instructor by a date that allows for timely grade submission to the Registrar. In NSC 371, this date will be specified when the faculty member receives the progress report form, usually in March. Due dates are typically a few business days after the end of classes.

Student Responsibilities
The student’s responsibilities include, but are not limited to, maintaining good communication with the thesis supervisor, attending the thesis seminar meetings, submitting drafts to both the faculty mentor and the seminar instructor on or before the agreed-upon deadlines, obtaining signatures on the title page, turning in required forms to the CNS Honors Center office on or before posted deadlines, and giving a talk or poster presentation on the student’s research and findings. Students who do not attend meetings or meet deadlines may have their final grades in the thesis seminar penalized.
Optional Talking Points for HSS Faculty Mentors

Before the Thesis-Writing Semester
Before agreeing to mentor a student…

- What kind of capstone experience are you looking for? What do you want to get out of this experience? (What are you doing for your capstone experience? What activities are you engaged in?)
- What do you already know about your topic? What do you still need to learn?
- What is your personal investment in this topic?
- Have you taken courses related to your topic? How have they influenced your thinking?
- What scholarly reading have you already done on your topic? How has it helped you develop your thinking?
- Do you have a sense of what a manageable topic for a thesis would look like?
- What are some directions you’ve considered for a focused, manageable thesis topic?
- What would you want from me as a mentor?
- Do you need training in methodologies or using equipment? Do you know how to use online databases? (Archives? Lab? Survey instruments?)
- Do you hope to collect original data? Have you drafted an IRB proposal?
- Do we need to set some deadlines together? Can I count on you to give me a weekly update?
- How often do you want or expect to meet?

Early in the Thesis-Writing Semester

- Where do you stand with the research you’ve completed for your capstone experience? What gaps in your data or understanding do you need to fill before you can reasonably begin writing?
- Do you already have an argumentative stance on your topic? If not, what do you see as the primary conversations or controversies surrounding your topic? What additional research do you need to do before you’ll be able to engage with these conversations in a meaningful way?
- How can you contribute to our scholarly understanding of what’s at stake in your area of interest? Why should people care about this topic? How does your focused thesis project help us understand something bigger or think about something important in a new way?
- What problems do you see in the world (in Texas, in your community) or arising in the future because of something going on with your topic? What needs to be done to address these problems? What do people need to understand better in order solve a problem?

Middle of the Thesis-Writing Semester

- After writing your rough draft, what have you realized you need to learn more about? What evidence can you look for or develop to make your argument more solid? Do you know how to find the sources you need?
- What might be the primary arguments against the position you take in your thesis? How can you address those arguments for the audience who would make them?
- What are you still struggling with for this project? What is the biggest challenge you feel you need to overcome before you submit your thesis?
- What additional resources would help you produce your best work on this project?
- Does your thesis use and cite sources appropriately? Does it include any appendices that well-educated readers in this discipline would expect to find?
Late in the Thesis-Writing Semester

- When will you bring your printed thesis for me to sign?
- Are you convinced that your thesis conforms to appropriate conventions in the field of … ? How do you know?
- What is the most important thing you’ve learned as you developed this project and wrote your thesis?
- Do you think your thesis represents your best work so far?