* No thesis should cause pain and anguish. You should never be depressed over your thesis. If you are feeling anxious, overwhelmed, or isolated, come see me. This should be a rigorous, exciting and challenging opportunity, not a torture.
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### Essentials  
- You will find all thesis forms (registration, second reader) available on the Engineering Honors Program website, [http://www.engr.utexas.edu/undergraduate/services/honors](http://www.engr.utexas.edu/undergraduate/services/honors).  
- Important announcements regarding thesis deadlines and requirements will be sent through email, but ultimately, knowledge and compliance is your responsibility.  
- Everyone is required to participate in the thesis symposium. You cannot graduate with special honors if you do not participate in a symposium.
Questions

What is an Engineering Honors Program (EHP) Honors thesis?

Your honors thesis should be the culmination of your undergraduate research at The University of Texas at Austin. You should examine an area of research that could be part of your career after graduation. It could also be an area for graduate studies.

When should I take the thesis course?

We recommend that you complete at least half of the technical requirements for your engineering degree before starting your honors thesis. Most students choose to do the thesis during their last two semesters.

Will someone assign me a supervisor?

No. It is your responsibility to find both a supervisor and a second reader. The supervisor must be a professor at UT. Second readers must be regular UT faculty members. Your readers should be very familiar with, if not an expert in, your field of investigation. See section “You and Your Professors.”

What kind of project may count as a thesis?

Almost anything you can imagine. Generally, the EHP honors thesis is a report on experiments in science and engineering. It typically develops out of research done in a professor's laboratory. The EHP honors thesis can be generated from a design oriented project such as the space satellite done by ASE students. Often, your professors will have suitable ideas for projects. Speak with them about possibilities.

What do I do in the first semester of a two-semester course?

Typically you will be participating in the laboratory work of your supervising professor, formulating and gathering data for your thesis.

Tips for a Successful Submission

- Seek a supervising professor that you know. This supervisor must be UT faculty.
- Do not wait until the last minute to find a second reader. The second reader must be a regular UT faculty member or an established expert in the field.
- If you and your supervising professor seem to have too many differences, speak to Pam Dahl as soon as possible – better early than late. Let neither you nor your thesis suffer in silence.
Is there financial support available for special thesis expenses?

At the present time the Cockrell School of Engineering does not provide financial resources to support individual students in the EHP Honors Thesis program. Some faculty members have access to resources that could be used. Consult with your supervising professor. Students are strongly encouraged to apply to other sources of support such as the Undergraduate Research Fellowships. [http://www.utexas.edu/research/vp/awards/](http://www.utexas.edu/research/vp/awards/)

When should I start actually writing?

Editing is much easier than writing and nothing is more intimidating than a blank page. With that in mind, you should begin to write as soon as you have met with your supervisor and then continue writing consistently. (It is a good idea to keep a written log of what you talk about during each of your meetings. These paragraphs of ideas may end up as sections in your thesis.)

Do not be afraid to write before you have perfected your final outline. And feel free to start writing in the middle. Begin with the section where you feel most confident and go from there. It is not uncommon to finish writing with the introduction.

How do I graduate with special honors in engineering?

You can graduate with special honors in engineering if you have an in-residence GPA of 3.5 or higher, complete the two-semester thesis (XX 679H) with an A in each semester, and pass an oral exam.

May I get special honors in two degree programs?

No. You may not, for instance, receive special honors in Plan II and special honors in Engineering. However, you are still eligible for University honors in another program (honors, high honors, or highest honors), which are determined by your grade point average.
Your Topic

FINDING A TOPIC

It is never too early to start thinking about a topic. Indeed, as a “capstone project,” your thesis should grow out of your personal interests and passions as you have pursued them in courses, internships, travel, and experiences during your college years. The best advice we can give you is to follow your interests and find/create/construct a thesis topic that you can imagine spending a year developing.

Finding a topic is a process and will more than likely grow out of conversations with friends, professors, and advisors. If you already know which professor you would like to work with, go brainstorm with him or her. Start talking (sooner rather than later) about your ideas and the connections you see in the courses you have enjoyed.

Do not forget about the wonderful resources in libraries such as the Richard W. McKinney Engineering Library located in ECJ 1.300. Call 495-4500 for library hours or visit the library’s website. For a complete listing of all campus libraries and their services, see the UT Library Online.

BACKGROUND AND EXPERIENCE IN YOUR TOPIC

You must have some background in your topic. It is impossible to define a topic unless you already know something about it. You do not need to be a specialist in the area, but you will have to show us that you have some general knowledge of the subject before your topic can be approved. You may want to review your thesis proposal with your departmental honors advisor if you need more experience in your anticipated area of study.

This background ought to involve some coursework in the area that your propose to study, almost certainly beyond a single introductory level class. Normally, one or two courses will be enough to provide a foundation for your thesis work, but you may also have real-life experience to build on that is as good as, or better than any coursework. Lab experience will also serve as a great entry point for research. If you are unsure of the best courses to explore your interests, go see a faculty member in the department. As long as you go during their office hours, they will usually be happy to talk with you.
IF YOU NEED HELP

Your departmental honors advisor will be happy to advise and assist you in finding a supervisor or in defining your topic, *especially if you do not put it off until the last minute.*

HUMAN SUBJECT RESEARCH

Students working on a thesis that involves human subjects in any way (and this includes just interviewing peers on campus) must complete and submit to the Institutional Review Board documentation and forms for approval from the university Institutional Review Board (IRB). Students must then wait for formal approval from the Office of Research Support and Compliance (ORSC) before they may begin their research.

Interviewing human subjects before you have received IRB approval could result in disciplinary proceedings by the Review Board for non-compliance, so be sure to submit your online application in the beginning of the semester. Please be aware that the time it takes for IRB approval is widely variable. You may be asked to resubmit your proposal, perhaps more than once, and several people in their office may need to review it. This process can take several months, so start early! For more information, also visit the IRB website: [http://www.utexas.edu/research/rsc/humanresearch/](http://www.utexas.edu/research/rsc/humanresearch/).
Supervisors and Second Readers

FINDING A SUPERVISOR

A supervisor is typically a professor that has taught you before in class or leads a lab that you are working in, but this is not a requirement. Your supervisor must be a UT faculty member with expertise in the area of your thesis work. If one of your former professors works in your area, that is wonderful. However, as much as you may have loved one of your old professors, that person cannot supervise your thesis if they do not have expertise in the area. This is important because your supervisor will be the person who suggests sources to you, discusses your ideas with you, and then evaluates your work. Someone outside the area may be unaware of very relevant material for your work or of critical questions that you need to consider.

Feel free to meet with several professors and run your ideas past them. Even if they cannot advise you, they may point you in a helpful direction. Don’t dread this process. Finding a good advisor is like finding the perfect pair of shoes: it will be a comfortable fit, and the outcome will be attractive.

If you are having trouble finding a supervisor, consult with your departmental honors adviser. They know the faculty and can give good advice.

THE FIRST MEETING

Make an appointment to meet with a potential supervisor to brainstorm, to find a topic, or discuss the topic you have chosen. That is usually safer than dropping in during office hours. If you already know the professor, you can probably connect your topic to work you have already done for him or her. If the professor is a stranger, you will have to work a bit harder to introduce yourself and present your qualifications. In either case, you should be prepared to explain your proposal. But do not consider your topic as engraved in stone; the professor will probably offer suggestions for refining or reshaping it, and you should be open to these ideas. If a professor you visit is too busy or feels unqualified to be your supervisor, they may agree to act as the second reader. If the professor declines, ask them to refer you to a colleague.
THE ROLE OF THE SUPERVISOR

The supervisor is an adviser who guides your research, provides constructive criticism of your writing, and assigns your grade for the thesis course, in consultation with the second reader. If your supervisor judges your work to be an acceptable honors thesis, they will sign your title page.

You should meet with your thesis supervisor regularly, at least once every two weeks, to discuss your progress. Make sure that you and your supervisor discuss expectations (i.e. how often you’ll meet, what materials will be provided to you, what types of questions are appropriate, a timeline, benchmarks). We recommend that you put your expectations in writing at the start.

Early in the process, your supervisor will offer suggestions, directions, and advice to help you narrow down your topic to something you can cover well. Make sure you hand in your drafts and meet all deadlines agreed upon by you and your supervisor so that they have plenty of time to go over each draft with care in order to give you useful comments.

THE SECOND READER

The second reader must be a regular UT faculty member who, acting as an advisor, reads your thesis, gives you helpful comments and signs your title page if they judge your work to be acceptable as an honors thesis. It is your responsibility to talk to your second reader and work out what you expect from each other. Again, be clear about dates: when drafts are due, how often you need to meet, etc.

If your topic is in multiple fields, then the second reader’s expertise may complement that of your supervisor. If that is the case, you might want to meet with him or regularly throughout the semester(s). Moreover, if you are indeed writing an interdisciplinary thesis, be sure that your work does take into account the scholarly practices of different disciplines. Scholars from different fields read theses with different expectations.

Your second reader must receive the thesis by the twelfth week of classes. Often, however, the second reader will want to see a rough draft earlier so that you can incorporate their comments into your final copy. Finding a second reader is like finding a supervisor, only easier. Usually your supervisor will help you in your search. If not, follow the steps for finding a supervisor or ask your departmental honors advisor for advice.
CHANGES IN SUPERVISORS/SECOND READERS

Occasionally circumstances arise where a student may need to find a new supervisor or second reader. This is an extremely stressful situation for the student and should only happen when no other alternative for successful completion of the thesis project exists. If such a situation should arise or seems like it might be eminent, DO NOT DELAY in making an appointment with your departmental honors advisor to discuss your situation.
Thesis Symposium

FORMAT

The thesis symposium is an informal academic conference. You will give a twelve-minute presentation about your thesis after which the audience (faculty, students, alumni, and family) will ask questions, offer suggestions, and make comments. You may want to attend at least one session in addition to the one in which you present to get a feel for what they are like and the expectations. You will be graded on your presentation, and the grade will count for 15% of your final grade. The Coordinator of the EHP therefore reserves the right to alter a thesis grade on the basis of the student’s performance at the thesis symposium.

PLANNING YOUR TALK

Your thesis may not be complete at the time of the symposium, and in that scenario, you will be presenting a work-in-progress. As you put together your presentation, you might want to consider the following questions:

• What problem or question are you investigating?
• What have you found so far?
• What unexpected problems have you encountered, and did you resolve them?
• What have you learned?

You will be talking to people who may not be experts in your field, so make sure you explain all technical terms and avoid jargon. Do not try to do too much. Twelve minutes is not very long, so make sure your presentation is organized and that you get to your main points quickly. In your presentation you will typically speak from notes. If you create a script, you can be certain of its length. Count on about two minutes per double-spaced page. Practice your presentation beforehand several times. Make sure you know what you want to say and how long it will take you to say it. Be prepared for photography during and after your presentation, and know that your presentation may also be recorded on video. Don’t let this intimidate you, however, as it makes sharing this experience with friends and family much easier!

EVALUATION

Presentations are graded, and faculty moderators will provide us with overall evaluations of each session. Students who were unprepared for their presentation will be asked to do another presentation at a later date and will almost certainly be deprived of Special Honors.
Standards

REVISION, REVIEW, AND GRADING

Either your supervising professor or second reader may call for further revisions to your final paper. Be sure you know in advance what standards your professors expect you to follow. If your supervisor expects too much, let the EHP coordinator help you resolve this before it is too late. The EHP office requires that you submit your thesis in a particular format. The supervisor and second reader have the final say on both standards and grading.

VARIED SET OF STANDARDS

We cannot enforce a single set of standards on every thesis, as standards for both research and format vary from field to field. What follows is a set of guidelines that you should read before starting. If the thesis you plan to write does not conform to one of these standards, or if you have special reasons for seeking an exception, ask the EHP coordinator in writing for approval.

SUBJECT

Although you may not know exactly what you are doing at the start, a finished thesis should have a well-defined problem or purpose clearly stated in the introduction. A research thesis should use primary material when it is available. A technical thesis may be written in the technical language of its field, but the abstract and the conclusion must be written for the intelligent layperson.

In all cases, you should write the introduction, conclusion, and abstract as if you were addressing the interdisciplinary board of a grant-giving agency and had to explain the significance of your project to a group of intelligent people who do not have in-depth knowledge in your field.

METHODOLOGY

Your thesis should follow the rules of the discipline of your topic. For example, a ME thesis should use one of the methods acceptable in ME, while ECE and CHE theses should follow conventions used in those fields. There is more flexibility, however, for theses that are interdisciplinary. If you are writing a thesis that crosses disciplines, you, your supervisor, and your second reader should determine what methods you will use.
CONCLUSION

Your thesis should have some sort of conclusion. No thesis will be accepted that is plainly unfinished. A thesis that breaks off after thirty pages without a conclusion is not acceptable.

LENGTH

Our guidelines are approximately 7500 words for two-semester XX 679H theses. This may vary, however, with the nature of the thesis.

CITATIONS

You must use notes that cite the sources of your information and give credit for ideas and phrases that are not your own. Footnotes, endnotes, and parenthetical notes are all acceptable, but you should pick a style compatible with the discipline or disciplines represented in your thesis and use it consistently. Please do not use parenthetical notes if you plan to put substantive information in your notes. (See Appendix 2 for a list of style manuals.) Whichever style you pick, consistency is the basic requirement.

You must cite both direct quotations and paraphrases. When you paraphrase, you must use your own words and sentence structure, rather than echoing the sentences of the original source. Do not be surprised if your thesis has lots of notes. A person reading your thesis should be able to tell what information is from your original research and what had its source in work done by others. Do not forget to cite charts, tables, and maps that you did not make yourself. The use of another person's ideas or words without proper attribution is plagiarism, a serious form of academic dishonesty. We encourage advisers who suspect plagiarism in a thesis to follow the guidelines set by the Dean of Students' Office. The penalty for plagiarism in a thesis is usually failure of the thesis course. Sometimes unintentional plagiarism can occur, but you can guard against this with careful note taking.

Your thesis should have a list of your cited works, following one of the standard bibliographical forms.

FORMAT

A thesis should be neatly typed or laser-printed on numbered pages with one-inch margins. It should follow a manual of style that is in use in its field. A thesis must be well proofread. A manuscript with more than a few errors in spelling, grammar, or punctuation will not be accepted.
Grades, Oral Exams, and Thesis Submission

GRADES

A full range of grades may be given for honors theses, from A to F. Work that is not up to a high standard should not receive an A. If you turn in a thesis that is below average, and you receive a lower than expected grade, you may be given an opportunity to rewrite it. This should be discussed with your supervisor.

85% of this grade will be agreed upon by your first and second reader on the basis of your written work. The remaining 15% will be decided on the basis of your required presentation at the EHP Thesis symposium.

XX 679HA GRADES

The grade for the first semester of the two-semester thesis course should be based on the amount of research you have done and the quality of the outline of your thesis, which is due at the end of the first semester. Talk with your supervising professor early in the first semester about how much work he or she expects from you and when he or she expects drafts in order to assign you a grade at the end of the term.

You must have a passing grade on record (not an X or incomplete) for XX 679HA before you will be allowed to register for the second semester. If you do receive an X at the end of the first semester, you must remove the X by the twelfth class day of the next semester in order to continue in XX 679HB.

AN UNFINISHED THESIS AND GRADUATION

It is not the end of the world if you do not finish your thesis on time. We do not encourage incompletes, but we understand that sometimes a thesis takes longer than expected. Of course, if you do not finish, or your thesis is judged unacceptable, and if your thesis is required to meet degree requirements, you cannot graduate until the thesis is completed and approved.
If you do take an incomplete, you must agree on a new schedule with your supervisor. Tell the EHP coordinator what this schedule will be and when you plan to graduate. It is your responsibility to keep up with the deadlines set by the Engineering Office of Student Affairs for students with incompletes and to keep in touch with the degree auditor.

Be especially conscientious if you want to finish and graduate during the summer, since faculty members are often not on campus. Make sure that your supervisor and second reader have the time to work with you in completing the thesis in time for you to be certified for graduation.

If you graduate after the semester you complete your thesis, it is your responsibility to contact the EHP coordinator and Engineering Student Affairs degree auditor about adding “special honors” to your transcript, and getting it announced during the graduation ceremony. This needs to be done at least two weeks prior to the ceremony.

THE ORAL EXAM

Students seeking special honors in engineering must pass an oral exam. A committee consisting of the thesis supervisor and the second reader administers the oral exam, which will last 60-90 minutes. It is the student’s responsibility to furnish the committee with a copy of the finished thesis in ample time for them to read it thoroughly before the exam.

The oral exam is a meeting in which you discuss your thesis with both your readers. This is your last chance to get their feedback and is an opportunity for you to teach them something. Though informal, this is a special occasion marking the completion of your project. Your readers will ask you questions, and you may have questions for them. If your answers make it clear that you could not have written the thesis, or if your responses put your thesis in such a new light that your readers now think it should be re-written, you could fail the oral exam; however, this rarely happens.

PRESENTATION AND BINDING

Your thesis will represent many hours of hard work. It should be neatly printed on good quality paper. Use chapter headings if you can, and provide a table of contents with page numbers for the start of each chapter or section.

Your thesis should be well bound. All theses are required to have your name and thesis title on the spine, so the spine should be “closed.” There is no one way to put titles on the spine; just make them neat and long-lasting.
NUMBER OF COPIES

Make at least four copies of the final thesis. One copy is for the supervisor, one for you to keep, and one is reviewed by the EHP director and eventually placed on display in the EHP office. Many students also give the second reader a copy. Keep in mind that commercial copy shops are very busy at the end of a semester.

READERS OF YOUR THESIS

Your supervisor and second reader will read your thesis. Prospective employers and graduate schools are also sometimes interested. So are your parents, so make them a copy. Be aware that your thesis will not be kept confidential, except in very unusual and specific circumstances, which the EHP coordinator must approve in writing beforehand.
GUIDELINES FOR YOU AND YOUR SUPERVISOR

1. The student and the supervisor should meet regularly to discuss drafts or written notes. A schedule including benchmarks should be agreed upon by the supervisor and the student.

2. The student will give his or her supervisor a full draft of the thesis by around April 15 (or November 12 for fall theses).

3. The student must make a reasonable attempt to revise as the supervisor suggests.

4. In the process, the student should face, identify and surmount a problem in research or creative process.

5. In order for the student to pass the course, their thesis must be worth a passing grade (C or better), agreed upon by supervisor and second reader. Only those that meet the highest standards for honors work should receive an A. If the student or the thesis does not meet the requirements outlined above, you may assign it an incomplete and allow the student to finish by a date convenient to you and the second reader. Otherwise, assign it a grade of F.

Please note that all EHP students must participate in a thesis symposium. (It is a great idea for EHP students to attend the symposium presentations during the semesters before they will be asked to present themselves.) The presentation composes 15% of their final thesis grade. The EHP Coordinator reserves the right to alter a thesis grade on the basis of the student's performance at the thesis symposium.
GUIDELINES FOR YOU AND YOUR SECOND READER

1. The second reader should receive a full draft of the thesis by the end of the 12th week of classes. To be acceptable by the EHP, a thesis must have been presented to the supervisor in time for revision before final submission.

2. In order for the student to pass the course, their thesis must be worth a passing grade (C or better), agreed upon by supervisor and second reader. Only those that meet the highest standards for honors work should receive an A.

If a thesis does not meet these requirements, with the second reader’s approval, the supervisor may assign it an incomplete and allow the student to finish by a date convenient to you.
Appendix 1:
Summary of Requirements

**Thesis symposium:** You may not submit a thesis for EHO until you have received a passing grade on a thesis symposium presentation.

**Thesis length:** Thesis length may vary with the nature of the thesis, but the basic guideline is approximately 7,500 words. To measure the length of your thesis, simply run a word count on your computer.

**Format:** Your thesis should be neatly printed, double-spaced with one-inch margins, double-sided to conserve paper, and with numbered pages.

A conclusion or afterward is required for most theses.

**Citations** should follow a consistent style, along with references to sources. If you are unsure which style to use, speak with your supervisor or your departmental honors advisor.

Direct quotations should be indicated as such and their authors properly cited. When quoting a passage of more than three lines, present the quotation without quotation marks, indented, single-spaced, and in block form.

A list of works cited is required for most theses. As with citations, formats for bibliographies may vary depending on your topic and discipline. Consistency is the fundamental requirement.

**A list of works cited** is required for most theses. As with citations, formats for bibliographies may vary depending on your topic and discipline. Consistency is the fundamental requirement.

**Chapter/section** headings should be used to organize the thesis.

**A table of contents** is strongly recommended.
Appendix 2: Frequently Referenced Style Manuals

The following are some standard style manuals:


