Department of Computer Science
THE UNIVERSITY OF TEXAS AT AUSTIN

CS 379H – UNDERGRADUATE HONORS THESIS
STUDENT GUIDE

CS 379H provides highly qualified undergraduates with an opportunity to participate in a research project under the direct supervision of a faculty member. This course should be of special interest to students planning research-oriented careers and intending to pursue graduate study. Students successfully completing CS 379H and meeting GPA requirements are awarded the distinction of graduating "With Special Honors in Computer Science".

To give students a preview of graduate-level research, CS 379H has been designed to mimic the process of doing a master's thesis or doctoral dissertation: the student must find a supervising instructor, decide upon a research project, work at his or her own pace to produce results, write a thesis describing the research, and then defend it in a presentation before a group of faculty members.

This document is intended to overview the requirements for CS 379H and to provide helpful suggestions to students interested in taking this course.

WHEN TO TAKE CS 379H

Many students take CS 379H their last semester before graduation. If you do this, plan your schedule carefully to ensure you have the time needed to complete your project without delaying your graduation. Be aware that job interviews and site visits will take away from your research.

If you are applying to graduate school, taking CS 379H a semester earlier may be worthwhile. This will allow you to describe your research in your graduate school application, and your supervising instructor may provide a valuable letter of recommendation.

PREREQUISITES

In order to take CS 379H, you must meet the following requirements:

1. You must have at least a 3.0 overall UT grade point average.
2. You must have at least a 3.5 CS grade point average. Your CS grade point average is computed using all grades you have earned in UT courses having a CS prefix.
3. You must have completed CS 310 or 310H and CS 336 or 336H.
4. You must have completed any upper division CS courses relevant to your area of research, as determined by your supervising instructor and the honors faculty advisor. (For example, if you are interested in working in the area of operating systems, you must first complete CS 372.)

Additionally, you are strongly encouraged to have taken a CS 370 before registering for CS 379H. In the absence of this, you will need to show other evidence of research and a strong endorsement from your research supervisor.

FINDING A SUPERVISOR

It is your responsibility to find a faculty member willing to supervise your research. Be aware that faculty members have limited time and may not be available every semester to supervise CS 379H projects. Make arrangements early, preferably by the start of pre-registration the semester before you will begin your project.

Faculty members will be more agreeable to supervising you if you have done well in their courses and if your interests are similar to theirs. Brief descriptions of our faculty's research interests can be found on the bulletin board at the west entrance of Taylor Hall.

SELECTING A RESEARCH TOPIC

There are several ways to find a topic for a CS 379H project. Occasionally, students know exactly what problem they want to work on. More often, students rely on faculty members for suggestions.

Some faculty members direct large research projects on which both undergraduate and graduate students work. These faculty members may be able to find a piece of the larger project that is perfect for a CS 379H course. Other faculty members may have projects that require only one student to complete.

When you approach a faculty member about supervising you, expect to be asked about your interests. The more specific you an be, the easier it will be for the faculty member to help you select a topic.

There is perhaps nothing more important than finding a project that you enjoy and a faculty member with whom you can interact easily. Be prepared to talk to several faculty members about different projects before making a decision.

PAPERWORK AND REGISTRATION

Once you have found a supervising instructor and decided upon a project, you should complete the attached CS 379H Contract and obtain the necessary signatures.

We recommend you complete the paperwork the semester before you plan to take CS 379H. You may pre-register for CS 379H even if you have not finalized arrangements for the course.

DUE DATES

During the **fall/spring** semesters, the completed form(s) will be due in the Undergraduate Advising Center by the fourth class day at 12 noon. Failure to turn in a completed form by the deadline will result in being dropped from the course.

During the **summer**, the completed form(s) will be due in the Undergraduate Advising Center by the second class day at 12 noon. Failure to turn in a completed form by the deadline will result in being dropped from the course.

WRITING COMPONENT CREDIT

You may take CS 379H for upper division writing component credit by registering for the appropriate unique number. Doing so adds three requirements to the course:

1. Your thesis must include at least 4,000 words of English text, exclusive of computer code, tables, figures, etc.
2. Your supervising instructor must critique the quality of your written expression and suggest ways in which your writing may be improved.
3. The quality of your written expression must be a factor in determining your course grade.

THE SECOND READER

While you are working on your research, you should make arrangements with a faculty member to serve as your second reader. This faculty member will read your thesis, attend your presentations, and approve the work you have done. Your supervising instructor will assist you in finding a second reader.

THE THESIS

There are no specific requirements as to the length, content, or format of the thesis. Your thesis should be a complete and concise description of the work you have done. It must be acceptable to your supervising instructor, the second reader, the external thesis committee member and the honors faculty advisor. Your thesis may be bound in any appropriate manner. The title page should include the title of your thesis, your name, your supervising instructor's name, and the date.

You can take a look at recent honors theses on the technical reports webpage, which may be found under research on the departmental webpage.

THE ORAL PRESENTATION

In addition to your written thesis, you must give an approved oral presentation to your supervising instructor, second reader, and an assigned member of the Undergraduate Thesis Committee.

DEADLINES

The semester the student is enrolled for CS379H will be a very busy one. In addition to completing the thesis research and writing the honors thesis, there are several deadlines to be met during the course of the semester. Below is a tentative schedule of deadlines related to the honors thesis:

First Month

- Student and supervisor must finalize Second reader.
- Student confirms that their second reader will be in town for the oral presentation (see below) and will be available to review the thesis during the last 2 weeks of class and first week of exams.
- Honors Advisor communicates External committee member assignments. The student's Honors Thesis Committee consists of the supervisor, the second reader and the external committee member assigned to the student.

Second Month

- Student and supervisor finalize date & time of oral thesis presentation in consultation with the honors thesis committee. The talk must be scheduled the week prior to the last week of class, at a time convenient to the committee.
- Notify the undergraduate office of the date and time so that a room can be scheduled for the talk
- Presentations are scheduled for 1 ½ hours, actual talk time should be approximately 45 minutes.

Third Month

- Student submits thesis draft to her/his committee.
- Oral thesis presentations take place. Expect to receive feedback from committee.

Last day of classes

- Students submit their final thesis documents to committee and to department.
- Students complete the Publication Release Form and submit to the department.

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CS 379H CONTRACT

Name: _____   UT EID: _____
                  Last   First   Middle

E-mail: _____   Expected Graduation Date: _____

Semester You Plan to Register for CS 379H: _____

Overall UT GPA: _____   UT CS GPA: _____

Name of Supervising Instructor: _____

Is CS 379H being taken for writing component credit? _____

Is CS 379H being preceded by a related CS 370 project? _____

Tentative Title of Thesis: _____

_____

Brief Description of Proposed Project:

_____

_____

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_____

_____

Student Signature	Supervising Instructor Signature	Honors Faculty Advisor Signature
Date	Date	Date