Department of Computer Science
Undergraduate Honors Thesis Guidelines and Requirements

Why complete an Honors Thesis?
The honors thesis provides students with opportunities to engage in scholarship and professional activity that cannot be paralleled by any classroom experience. Preparing a thesis allows students to explore a topic thoroughly, generate new knowledge and contribute to their fields of study. The thesis can satisfy intellectual curiosity, promote creativity and intellectual maturation, and expose students to expectations similar to those in graduate school, professional school and various career positions. The thesis encourages students to develop several important academic and professional skills, such as critical analysis, oral and written communication, problem solving, and time management. The thesis also affords students the opportunity to develop a professional working relationship with their professors which can help to enrich their intellectual development. The thesis improves student marketability by providing students with advanced academic experience, detailed meaningful reference letters from their mentors, and tangible products to show admissions committees and prospective employers.

Eligible students
Junior or senior honors students who have completed at least three upper division classes. Non-honors students who meet the Honors College requirements (i.e., minimum 3.3 GPA and in good standing) are also eligible. Students who do not meet these requirements may submit a petition to the Director of Undergraduate Studies to waive the requirements. This petition should include a letter of recommendation from the prospective mentor.

Eligible mentors
Any permanent Core or Associate Computer Science Faculty member may supervise an honors thesis in computer science.

The product
The student will need to complete a thesis report and give a presentation about the honors thesis project.

The report will be approximately 20 double-spaced pages with 1 inch margins (exact length may vary). For some projects, there might be another product (for example, a desktop or mobile application or a website) that accompanies the paper that is produced in addition to the written thesis.

The presentation will include one of the following:
1) The student will present their work in poster or oral format at a conference (professional conference or a reviewed University conference such as GSURC).
2) The student will present a poster at the CS student demo and poster day.
3) The student will give an oral presentation of their work, to a committee of two or more faculty.

Coursework

Students must enroll in CSC 4880: Honors Thesis II (3 credit hours or permission of instructor) the semester that they complete their thesis. Students have the option to enroll in CSC 4870: Honors Thesis I (1-3 credit hours) the semester before they complete their thesis. The total number of credit hours from CSC 4880 and CSC 4870 is limited to 6, counted in area H. The exact number of credit hours of CSC 4880 and/or CSC 4770 depends on variables such as mentor requirements, the amount of room in the student's schedule, and/or financial constraints. The timetable for the research and writing is not necessarily limited to one or two semesters, however.

Students are expected to meet regularly with their faculty mentors to set goals and deadlines, discuss progress and provide feedback.

Proposal and Course Authorization

Students interested in writing an honors thesis in computer science should meet with a professor to discuss possible projects. After a professor has agreed to work with a student, the student should prepare a short proposal or outline of the work they propose to do. Each professor can decide what this proposal should include, but it should generally include:

1. A brief description of the research topic
2. A discussion of the methods that will be used to conduct the research
3. A timeline for completion of the work

The professor will then meet with the student to discuss the proposal, and if approved by the supervising professor, the student must notify the Honors College of their intent to conduct an honors thesis project by completing the online Intent to Conduct an Honors Thesis Form which will require that students:

1) Identify the faculty member who has agreed to supervise their project;
2) write up to a 200-word summary of their project; and
3) provide a tentative title for their project.

If a student needs to register for 4870 or 4880, then this form is due **April 1** for summer registration, **August 1** for fall registration, and **December 1** for spring registration. Students who do not need to register should submit this form as soon as they begin the thesis.

If the proposal involves research with human participants, the student should work with their supervising professor to submit an Institutional Review Board (IRB) application.

Evaluation

The thesis will be evaluated by the research mentor alone or the research mentor and a second reader selected by the mentor. When applicable, the mentor will work with the second reader to set deadlines for the submission of the thesis to the second reader and for the second reader to submit the evaluation to the mentor. The mentor (and reader when applicable) will use the following checklist to evaluate the thesis. The advisor and second reader (i.e., when applicable) will consult with each other to determine the final grade, and the Director of Undergraduate Studies will determine the final grade in cases where the Advisor and Second Reader cannot agree.

Please provide a rating of 1 = excellent, 2 = satisfactory and 3 = unsatisfactory for the following:

Skill	Rating	Comment
Stated a clear, novel, and specific research question (or hypothesis)		
Used appropriate methods to answer research question/hypothesis		
Demonstrated an understanding of relevant literature, terminology, and theory		
Analyzed information or data collected using appropriate research methods		
Drew appropriate conclusions supported by evidence		
The thesis was free of typos and grammatical errors		

Recommended grade:_____

Students who receive a passing grade must notify the Honors College that they have successfully completed their honors thesis by completing the Certification of Successful Completion Form. This form is due by **the last day of final exams during the semester in which the thesis is completed.**

Required attendance at Honors Thesis Sessions
Students are required to attend three 2-hr sessions led by the Honors College Thesis Team each semester that they are working on their honors thesis. The three sessions are held at the beginning, middle and end of the semester. The last session is the Thesis Pitch, which is an oral competition event where students have 3 minutes to communicate the importance of their research. Presenting at the Thesis Pitch is voluntary, but attendance is required.

Honors College support
Honors College students participating in Honors Thesis are eligible to borrow a laptop computer from the Honors College for the semester, contingent on availability. These students may also apply for financial support to present at conferences and purchase supplies for their research. In addition to the three required sessions, there are several workshops held in the Honors College each semester to provide support to Honors College students engaged in research and theses activities. The Faculty Associate for Research and Theses and the Research Program Coordinator are available to advise students and their mentors.

Questions
Contact the Computer Science Director of Undergraduate Studies, the Honors College Undergraduate Research Program Coordinator, and/or the Office of Undergraduate Research and Fellowships Director.

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