

Computer Science and Engineering Honors Program

PHILOSOPHY

The Honors Programs in Computer Science or Computer Engineering at Wright State University provide a means for intellectually gifted students to pursue a faculty-mentored program of independent study designed to allow the student an opportunity to develop their interests and abilities well beyond the level expected of the average graduate of the program. Honors students are expected to have demonstrated prior academic excellence, to be strongly self-motivated, and to be capable of pursuing largely self-directed advanced study under the guidance of their selected Honors or Thesis Advisor.

ADMISSION REQUIREMENTS

To gain admission to the Honors Program in Computer Science/Engineering, a student must have:

- a) A declared Computer Science/Engineering major.
- b) Senior standing during the semester their Independent Study will begin.
- c) At least 2 semesters of study remaining before graduation in which to pursue their Independent Study or Thesis.
- d) An overall grade point average of 3.25.
- e) A grade point average of 3.75 in all CS and CEG courses.
- f) Completed the following courses (or equivalent transfer courses):
 - CS 3100 Data Structures and Algorithms
 - CEG 3310 Computer Organization
 - [Computer Science] CEG 4350 OS Internals and Design OR
[Computer Engineering] CEG 4330 Microprocessor-Based Embedded Systems
 - At least 6 semester credit hours of additional 4000-level CS/CEG coursework
- g) A sponsoring faculty member able to serve as their Honors Advisor.

Petitions for admission for students not meeting these requirements will be considered by the CSE Undergraduate Studies Committee.

HONORS ADVISOR AND COMMITTEE

Each student in the Honors Program will have an Honors Advisor who has agreed to mentor, help plan, oversee, and evaluate the student's honors study. A sponsoring Advisor is required for admission into the Honors Program in Computer Science/Engineering. The Honors Advisor must be a fully affiliated faculty member of the Department of Computer Science and Engineering.

In addition, each student will identify at least two additional individuals qualified to evaluate their final work to serve with their advisor on their Honors committee. These additional individuals will normally be faculty members in the department of Computer Science and Engineering, but may also include (with the agreement of the Honors Advisor) other qualified evaluators. The honors advisor serves as chair of the Honors committee. At least one member of the committee must be a fully affiliated faculty member of the Department with the rank of Assistant professor or higher. The final committee must be approved by the CSE director of undergraduate studies by no later than the end of the first semester of the independent study.

THE PROGRAM

Prior to the first quarter of the independent study, the student will select a faculty member as an Honors Advisor and apply to the Honors Program in Computer Science/Engineering.

After achieving Senior Status, a student admitted to the Honors Program will complete an individually tailored program involving two or more semesters of independent study culminating in a written paper and oral presentation. Students will register for at least 6 credit hours over two or more semesters of 4000-level independent study under the faculty member who is to oversee the study. Generally, the program of honors study will consist of no less than 3 credits hours a semester over two consecutive semesters (summers optional).

In the first semester of honors study, the student and the advisor will design the student's individual program of honors study and form the honors committee. At the completion of the honors study the student will provide a written and oral presentation of their work to their committee for evaluation.

In order to satisfy the requirements of the honors program in Computer Science/Engineering, a successful program of study must include all of the following elements:

- **Research:** A systematic inquiry into or in-depth investigation of an open subject or problem in Computer Science/Engineering
- **Project:** Design, construction, and/or implementation of some hardware (devices) and/or software (programs).
- **Dissemination:** Oral and Written presentation of the results of the study. At a minimum, the work should be presented in the form of a white paper or a manuscript deemed appropriate for submission to a targeted conference.

EVALUATION

The grade assigned to the 4000-level Independent Study shall be determined by the faculty advisor (the instructor of record for the course). The student may use these 4000-level independent study credits towards graduation. At the completion of their program of study, a student has received a grade of 'A' from their advisor for all independent study credits, then the student may request a final evaluation from their honors committee. The student's Honors Committee will evaluate the student's final work to

determine if the work satisfies the requirements of the Honors Program and is of honors-level quality. If the committee finds the work satisfactory then the student will be recommended for an Honors Degree.

If the student does not receive a grade of 'A' in all of their independent studies OR if the Honors Committee does not find the work to be of the required quality, then the student will not be recommended for an Honors Degree. Such students are withdrawn from the Honors Program in Computer Science/Engineering.

THESIS OPTION

A successfully defended undergraduate computer science/engineering thesis conducted over the course of at least two semesters and containing no less than 6 semester credit hours of combined independent study and thesis coursework constitutes an acceptable program of honors study. Thesis students must meet the honors program admission requirements in order to graduate with honors.

HONORS DEGREE

The Director of Undergraduate Studies for Computer Science and Engineering or their designee will consider the recommendations of all students' Honors committees and will notify the University Honors Committee of students that have completed all the requirements for a degree with Honors in Computer Science/Engineering.

WITHDRAWAL

A student may withdraw from the Honors Program at any time and resume the normal program of study. All credits of Independent Study in the Honors Program may be used normally towards meeting other graduation requirements.

Students are expected to make timely progress on their Honors Studies. Students are also expected to maintain a GPA that meets the admission criteria for the program. A student can be withdrawn from the program by their Honors Advisor, their Honors Committee, or the Director of Undergraduate Studies, should the student fail to achieve the required goals, become ineligible for the program, or whenever such action is deemed to be in the student's best interests.

QUARTER-TO-SEMESTER TRANSITION PLAN

Students that formally begin their honors project prior to the conversion to semesters (Fall 2012) may continue to use the criteria of the Spring 2012 honors program and must meet with their academic advisor and/or the Director of CSE Undergraduate Studies to develop a personalized transition plan. Students that do not formally begin their honors project before Fall 2012 must abide by all restrictions of this document as written. For the purposes of meeting these requirements, a 4-credit hour 400-level quarter course will be considered equivalent to a 3-credit hour 4000-level semester course. Articulation

of required courses (including Data structures, OS Internals, etc.) is available from Departmental Academic Advising.