SENIOR DEPARTMENTAL HONORS PROGRAM

2024 – 2025
Academic Year

SENIOR DEPARTMENTAL HONORS PROGRAM

Department of Mechanical Engineering
Clemson University

INTRODUCTION:

The Senior Departmental Honors Program in Mechanical Engineering provides exceptional students an opportunity to conduct an in-depth research project under the guidance of a faculty advisor.

OBJECTIVES:

The objectives of the program include: (1) giving exceptional students an opportunity to pursue technical interests to a much greater depth than ordinarily possible, (2) fostering a closer relationship between talented students and faculty, (3) developing the full potential of outstanding students, and (4) recognizing and rewarding students who have demonstrated academic excellence.

MEMBERSHIP:

Eligibility for membership in the Senior Departmental Honors Program is governed by the requirements of Calhoun College and the Department of Mechanical Engineering. These are as follows:

(1) The student must have completed (or be about to complete) the sophomore year in the prescribed academic program.

(2) The student must have minimum cumulative and engineering GPRs of 3.4 to enter the program.

If the student's cumulative or engineering GPR drops below a 3.4, the student will be allowed to continue in the Honors Program for the one semester probationary period permitted by Calhoun College. If the GPR does not return to a 3.4 or better at the end of the probationary semester, the student will be dropped from the Senior Departmental Honors Program and will not be reinstated at a later date. Faculty members who had made H4150 advising commitments to a student are not obligated to serve as a research advisor if that student is dropped from the Senior Departmental Honors Program.

PROGRAM GUIDELINES:

To be graduated with Senior Departmental Honors, all honors students must satisfy the following requirements:

(1) Complete the standard departmental requirements for graduation.

(2) Have a minimum cumulative and engineering GPR of 3.4.

In addition to the above, the student must complete the following:

JUNIOR YEAR:

Preliminary to the establishment of the senior research program, the student must participate in the Juniors Honors Seminar, ME H3000 typically during each of the semesters in the junior year. This a zero-credit seminar series which is designed to introduce the student to the spectrum of research activities in the department and permit discussion with faculty concerning areas of mutual interest. Satisfactory completion of this requirement entails the following:

(1) Attendance at all scheduled seminars in ME H3000. Exceptions will be made by the faculty coordinator only under extenuating circumstances.

(2) Selection of and arrangement to work with a faculty advisor in Mechanical Engineering on a problem of mutual interest.

(3) Submission of a brief statement of work prepared by the student under the guidance of the faculty advisor to the Honors Program Committee by the end of the second semester. Students may start ME H4150 after just one semester of ME H3000, but are still required to take ME H3000 for two semesters.

SENIOR YEAR:

The student must satisfactorily complete a senior research thesis while typically enrolled in two semesters of ME H4150 for three credit hours per semester. Eleven credit hours of 3000-level ME courses must be completed before taking the first semester of ME H4150. A total of six credit hours distributed over at least two semesters are required. Once a student has begun the semester, he/she should not withdraw from ME H4150 without mutual consent of the faculty advisor and the chairman of the Honors Program Committee. Students wishing to withdraw from the Senior Departmental Honors Program should do so between semesters.

In the first semester of study, the student must complete the following:

(1) Submit a written interim report to the faculty advisor by the last day of classes.

(2) Make a short speed presentation (2-3 minutes) on the last Wednesday before exams start.

(3) Receive a grade of B or better for work performed in this semester.

In order to complete the program satisfactorily, the student must do the following in the second semester:

(1) Submit a written draft of the thesis to the faculty advisor at least one week prior to the oral presentation.

(2) Defend the thesis through an oral presentation to the faculty and students of the Department of Mechanical Engineering during the last week of classes.

(3) Submit two copies of the finished form of the undergraduate thesis to the faculty advisor and the Honors Program Committee on or before the last day of the exam week. The thesis must meet all format requirements established by the Honors Program.

(4) Receive a B or better in the second semester, have a cumulative GPR of 3.4 or better and be recommended for Senior Departmental Honors by the Honors Program Committee. Recommendation by the Honors Program Committee will be made after final approval of the thesis.

FACULTY RESPONSIBILITY:

The primary responsibility of the faculty advisor is to serve as a mentor to the student and guide the student through the various stages of the research project. This includes problem definition, development of a research plan, research conduct, and oral and written presentation of results.

The faculty advisor will determine whether the manuscript is suitable for presentation as a thesis. Although no rigid format is specified, it is recommended that the thesis be prepared in a style followed by the Graduate School. A designated representative of the Honors Program Committee and the faculty advisor will sign an approval page after judging the quality of the thesis.

The faculty advisor is responsible for assigning a grade to the student each semester.

Students may not be paid to conduct their honors research.

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SENIOR RESEARCH THESIS TOPIC SELECTION FORM

Project Title: _____

Investigator: _____ ID#_____

Faculty Advisor: _____

Total Credits: _____

Brief Problem Statement:

See attached.

_____ _____ _____
Date Investigator's Signature Advisor's Signature

Title

A thesis presented to
The Department of Mechanical Engineering
Clemson University

In partial Fulfillment of the
Requirements for
Senior Departmental Honors

By:

Date, 20xx

To the Department of Mechanical Engineering:

This thesis, titled "..." written by ... is presented to the Department of Mechanical Engineering of Clemson University. I recommend that it be accepted in partial fulfillment of the requirements for the degree of Bachelor of Science in Mechanical Engineering with Senior Department Honors.

_____
Dr. ..., Thesis Advisor

Accepted for Department of Mechanical Engineering

_____
Honors Committee

Thesis Credit Distribution (must add to 6):

Eng. Science 4
Eng. Design 2