

## Guidelines for Honors Students in the Electrical Engineering Program

The School of Electrical, Computer and Energy Engineering offers honors students enrolled in the Electrical Engineering (EE) Undergraduate Program several opportunities to help them to fulfill requirements for graduation from Barrett, the Honors College (BHC). This document describes three opportunities: turning EE program courses into honors courses through Honors Enrichment Contracts, courses receiving automatic honors credit, and performing research for the BHC Thesis/Creative Project. In addition, it provides information on how a student can use their senior design capstone project to fulfill BHC requirements.

### Honors Course Credit

Any EEE course may be turned into an honors course through an Honors Enrichment Contract. Students wishing to receive honors credit for the course should confer with the course instructor at the beginning of the semester in order to develop a mutually acceptable plan for the honors enrichment activity. Most honors contracts involve either a project that extends the ideas and techniques covered in the course or outside research on topics relevant to the course work. Students have the responsibility to apply for the honors contract through BHC. The honors college contacts the instructor to approve the contract only after the student has initiated the process.

### Automatic Honors Courses

At the present time, one course in the EE undergraduate program (EEE 230) is considered to be an automatic honors course for honors students. Honors students enrolled in this course will automatically receive honors credit without needing to complete an honors contract. Honors students can also earn automatic honors credit without the need for an honors contract by completing a graduate level course. Note that courses designated by the omnibus number EEE 591 are not graduate level courses but rather senior technical elective courses that may be taken by graduate students for graduate credit. As a result, honors students cannot receive automatic honors credit for EEE 591 courses, and the advising staff will not normally grant an over-ride for honors students to register for EEE 591. Honors students should register for senior technical electives as EEE 4xx and complete an honors contract to receive honors credit for the course.

## The Honors Thesis

Students graduating from BHC must complete an honors thesis/creative project, which is a document that describes the body of research undertaken by the student. In most cases, EE students take EEE 488/489 as their capstone design sequence. However, an EE student may be granted permission to use IND 464/465 (Innovation Space) as his/her capstone sequence. In either case, EE students may use their senior capstone design project to fulfill BHC requirements for the honors thesis/creative project. Alternatively, the student may use EEE 493 (Honors Thesis) or HON 493 (Honors Thesis) to fulfill this requirement.

Prior to enrolling in EEE 488, students planning to graduate from BHC must complete a thesis/creative project information session. The session is designed to make certain they have been informed about the process, expectations, and deadlines. Students may complete this requirement through an on-line workshop offered through Barrett via ASU Blackboard.

The BHC needs documentation to serve as the **written portion** of the thesis/creative project. This written report, and its contents, will always be determined by the thesis director. The written report might narrate in detail what the student has done, the project's importance to the engineering field and what its importance could be, any problems the student encountered and how they were solved, and how the student might expand the project if given more time and opportunity. The honors thesis should represent a body of work performed independently by the student under the guidance of a faculty mentor. The honors research **MUST** be work performed above and beyond the normal coursework required for the BSE degree, and it **MUST** be work completed individually by the student. Students are encouraged to seek out a faculty mentor early so that the honors research can be clearly defined well in advance of the senior year.

The BHC also requires that the thesis/creative project include a traditional **oral defense attended by a thesis committee**. The minimum number of committee members is two, a Director and a second committee member. Only the director **MUST** be an ASU faculty member (lecturer or tenure-line).

There are some opportunities for BHC students to receive funding for their projects and perhaps even a stipend for themselves. For example, the Fulton Undergraduate Research Initiative (FURI) provides a stipend and a small amount of funding for undergraduate research. Honors students may use their FURI-funded project as their honors research. For more information on the FURI program, please visit the FURI website. Another opportunity is the ASU/NASA Space Grant which supports graduate and undergraduate students in a variety of disciplines to further their educational experiences in science, engineering research, and informal education programs. Individual faculty members may also choose to fund undergraduate researchers working under their mentorship from sponsored research grants or contracts.

## Registration Procedures

### Honors thesis using EEE 488/489 Capstone

- Complete thesis/creative project information session:  
<https://barretthonors.asu.edu/academics/thesis-and-creative-project/getting-started>
- Work with EEE 488 and 489 professor to do an honors contract for both of these classes by the honors college deadlines:  
<https://barretthonors.asu.edu/academics/honors-courses-and-contracts/honors-enrichment-contracts>
- Complete the Thesis prospectus form by the honors college deadline:  
<https://barretthonors.asu.edu/academics/thesis-and-creative-project/forms-important-dates>
- Student will do a project for his/her thesis that is an extension of the group project but includes individual work that will be written up and defended for the honors thesis.

### Innovation Space as Capstone and honors thesis

- Student registers for IND 464 (5 credits) and then IND 465 (5 credits)
- IND 464 substitutes for EEE 488 and IND 465 substitutes for EEE 489 in DARS.
- Technical elective credit will be given for the extra 4 credit hours from IND 464/465. The advisor will move these hours in the DARS to meet 4 hours of tech elective credit.

### Honors thesis using a project separate from the 488/489 Capstone

- Complete thesis/creative project information session:  
<https://barretthonors.asu.edu/academics/thesis-and-creative-project/getting-started>
- Work with faculty advisor supervising the project and sign up for EEE 492 during the 2<sup>nd</sup> to last semester and EEE 493 during the last semester to receive honors credit. If the student is working with an EE faculty member.
- Register for EEE 492/493 by turning the form into the EE Advising Center: insert link to form
- If the student is working with a faculty member from another discipline, the student needs to sign up for the 492/493 classes with the prefix of the faculty member's discipline. For example, a student working with a mechanical engineering professor, the student registers for MAE 492/MAE 493.
- Student can receive technical elective credit for only XXX 493 (3 credit hours) upon program chair approval. Tech elective credit will be determined when you submit your EEE 493 form for registration.