

# M E 494H HONORS THESIS SUBSTITUTION FOR THE CAPSTONE DESIGN PROJECT PETITION

A student wishing to file a petition must complete **Part A**, of this form and consult with his/her Honor's Adviser (**Part B**) and Project Supervisor (**Part C**). If more space is needed, please use an attachment.

\*Once approval from Honor's Adviser and Project Supervisor are obtained, please email the form to [lyarger@enr.psu.edu](mailto:lyarger@enr.psu.edu).

A. Name \_\_\_\_\_ PSU 9-Digit ID No. \_\_\_\_\_ E-mail \_\_\_\_\_  
Major \_\_\_\_\_ Concurrent Major \_\_\_\_\_ Phone No. \_\_\_\_\_  
Local Address \_\_\_\_\_

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## DESIGN PROJECT COURSE SUBSTITUTION

The capstone design project is culminating experience allowing the students to apply their engineering knowledge to an open ended activity. Most students satisfy the requirement by enrolling in either M E 440 or M E 441. Substitute 3 credit courses to satisfy the requirement such as Honors Thesis (\*\*494H) or a special topics course (e.g., \*\*497) are allowable by petition that must be approved by the student's advisor and the Professor-in-Charge of Undergraduate Studies provided the student can demonstrate:

1. The course substitution has similar course objectives as M E 440/441:
    - a. To apply academic training and education to provide a professional engineering solution to a real life problem,
    - b. Implement the design process to a professional engineering problem,
    - c. Work effectively in a team that includes co-workers, customers and vendors,
    - d. Communicate well using verbal, written and electronic methods.
  2. The student has the necessary background to meet the project technical needs.
  3. The student must have the prerequisites common for M E 440/441 (M E 340) prior to enrolling in the substituted course.
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Request: OPTION 1

- 3 credits of Capstone Design Project, if the effort meets the criterion stated above is satisfied, and
- 3 credits of Engineering Technical Elective (ETE) or General Technical Elective (GTE).

- OR -

OPTION 2

- 3 credits of Engineering Technical Elective (ETE) and 3 credits of General Technical Elective (GTE).
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Justification: Please justify, in detail and in outline format, how your project meets the intent of the senior capstone design course.

1. The course substitution has similar course objectives as M E 440/441:
  - a. To apply academic training and education to provide a professional engineering solution to a real life problem:

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Justification Continued:

b. Implement the design process to a professional engineering problem:

c. Work effectively in a team that includes co-workers, customers and vendors:

d. Communicate well using verbal, written and electronic methods:

2. The student has the necessary background to meet the project technical needs.

3. The student must have all prerequisites completed for ME 440/441. Please list the semesters each course was completed below.

**ME 440**

ME 340: \_\_\_\_\_

**ME 441**

ME 410: \_\_\_\_\_

ME 340: \_\_\_\_\_

**\*Concurrent Requirements: ENGL 202C, IE 312**

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## **M E 494H PROJECT REGISTRATION FORM**

**Student Instructions:** A student may register for M E 494H after obtaining permission from a member of the M E faculty who will serve as project supervisor. After obtaining this permission, the student will fill out the statements below and have both their advisor and the faculty member supervising their research type their names at the bottom of this form. The approved form must be emailed to lyarger@engr.psu.edu. After doing this, the student will be registered for the appropriate section of M E 494H.

**Faculty Instructions:** M E 494H can only be supervised by MNE faculty with at least the rank of Assistant Professor. Faculty supervisors should carefully review the qualifications of each student to make sure he/she meets the current MNE requirements for taking M E 494H. Faculty unsure of the requirements may check with the Professor in Charge of the Undergraduate Programs for Mechanical and Nuclear Engineering, in 139 Reber Building.

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**Statement of work to be performed:**

**Equipment & laboratory facilities required for the project:**

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# ME 494H PROJECT REGISTRATION FORM

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Student name: \_\_\_\_\_ PSU 9-Digit ID #: \_\_\_\_\_

Total number of ME 494H credits to be taken over ***both*** semesters: \_\_\_\_\_ Section #: \_\_\_\_\_

Semesters enrolled in course (i.e., FA17 / SP18): \_\_\_\_\_ / \_\_\_\_\_ Schedule #: \_\_\_\_\_

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**Additional space (if needed):**

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**B. Recommendation of Honors Adviser:**

Approved by Honors Adviser: \_\_\_\_\_

Email Address: \_\_\_\_\_ Date: \_\_\_\_\_

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**C. Recommendation of Project Supervisor:**

Approved by Project Supervisor: \_\_\_\_\_

Email Address: \_\_\_\_\_ Date: \_\_\_\_\_

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