MATSE 494W (or MATSE 494M for Honors)  
Research and Design Senior Thesis Application  
(3 credits)

This course covers the senior thesis research topic addressed by the student. This is a capstone research/design project which integrates: a) background literature search with articulation of a research hypothesis, b) design and implementation of an experimental plan to test the hypothesis, and c) conclusions regarding the validity of the hypothesis based on the experimental data obtained in the course of the research.

The main characteristic of this course is the performance of the research plan, followed by interpretation of the data in the context of the original hypothesis(es). Laboratory research is generally performed in collaboration with faculty and graduate research assistants, using equipment and facilities in a wide range of laboratories throughout campus. Occasionally, the nature of the research may require the student to collaborate with researchers outside of Penn State, perhaps even spending some time in residence at other facilities.

A total of three credits must be completed and advisor approved electronic thesis submitted, including signature form and electronic word search form by the deadline. Credits may be split between 2 semesters.

Submit complete applications to MatSE Undergraduate Student Services. Credits will be added to the student’s schedule during the first week of classes. Late applications may result in the student having to take the Learning Factory Research and Design Senior Project, MATSE 493W (3), instead.

### Important Dates:

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<tr>
<th>Event</th>
<th>Date</th>
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<tr>
<td>ABET review/formatting for fall graduates</td>
<td>November 12, 2021</td>
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<tr>
<td>Submit final draft to thesis advisor</td>
<td>November 19, 2021</td>
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<tr>
<td>Thesis submission deadline for FA21</td>
<td>December 14, 2021</td>
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<tr>
<td>Graduation</td>
<td>Saturday, December 18, 2021</td>
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<td>Poster deadline for Spring Poster Competition</td>
<td>March 1, 2022</td>
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<tr>
<td>ABET review/formatting for spring graduates</td>
<td>April 1, 2022</td>
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<tr>
<td>Submit final draft to thesis advisor</td>
<td>April 8, 2022</td>
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<tr>
<td>Thesis submission deadline for SP22</td>
<td>May 3, 2022</td>
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<tr>
<td>Graduation</td>
<td>Saturday, May 7, 2022</td>
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<tr>
<td>ABET review/formatting for summer graduates</td>
<td>July 8, 2022</td>
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<tr>
<td>Submit final draft to thesis advisor</td>
<td>July 15, 2022</td>
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<tr>
<td>Thesis submission deadline for SU22</td>
<td>August 9, 2022</td>
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<tr>
<td>Graduation</td>
<td>Saturday, August 13, 2022</td>
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MATSE 494W (or MATSE 494M for Honors)
Research and Design Senior Thesis Application (3 credits)

Name ____________________________ E-mail address ______________________________________

Student ID ______________________

Research Advisor’s Name ______________________ Research Advisor’s E-mail ________

Graduate Advisor _________________ Graduate Advisor E-mail ______________________ (if assigned)

Title:

Project Description
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Student Signature: ____________________________ Date _____________

Research Advisor Signature: _____________________________ Date _____________
(advisors must sign-off on project)

Credits (1-3) ____ FA21 ____ SP22 ____ SU22
Is this research a continuation of an International Internship in Materials experience? ___Yes ___No
Is Honors Credit required? ___Yes ___No

For office use: received date ____________ | Credits added to schedule ____ FA ____ SP ____ SU