Interengineering Master of Science in Engineering (MSE) and Master of Science (MS)

The INTERENGINEERING Master of Science in Engineering (MSE) and Master of Science (MS) Program is intended for students whose desired course of study does not fall within one of the traditional engineering graduate programs. An Interengineering Program combines course work from at least one graduate engineering department as well as other graduate department(s) on campus (Engineering or other) to allow students to create a program of study not available through the existing graduate degree programs. Applications and files of students entering the Interengineering MSE/MS option are handled by the designated department.

Before applying to the MSE program, the student must consult with a faculty member from each department in which the student intends to work, and identify at least one to serve as the student's faculty advisor. The other faculty members can serve on the student's Supervisory Committee if the student is admitted.

Students interested in pursuing an Interengineering degree should contact the graduate adviser in the specific engineering department/program of interest to discuss options and for possible assistance locating an engineering faculty adviser. See page 8 of this document for a list of engineering department graduate advisers.

Admission Procedure and Requirements

1. Development of the Plan of Study – When applying to the MSE/MS program, the applicant must submit a plan of study that sets out the intended 400 and 500 level course work and proposed thesis topic. Working with the faculty advisor(s), each student must develop a plan of study and research that meets the general degree requirements and satisfies the student’s own program objectives. The program of studies must include in-depth coursework from two or more departments and be approved by the faculty advisor(s). The proposed program is then set out on the student’s Application to the Interengineering MSE/MS Program.

2. Development of the Statement of Objectives – Students must submit a one-page statement of study, degree, and career objectives for seeking the Interengineering MSE/MS degree. This statement should explain why the student wants to enter the MSE/MS program rather than one of the traditional engineering graduate programs. Also, students should include in this statement any additional information to be considered as part of the application. This information may include work experience, outside interests, and unusual circumstances that may contribute to a better understanding of the student’s record. Applicants to the MSE/MS program must have well defined educational objectives that cannot be satisfied by established engineering programs.
3. **Application Procedure** – To apply to the MSE/MS program, an applicant must apply for admission to BOTH (a) the University of Washington Graduate School and (b) the Interengineering Graduate Studies MSE/MS Program.

   **(a) University of Washington Graduate School** – The graduate school application must be completed online. The URL of the web application is https://www.grad.washington.edu/applForAdmiss/. The application fee is $75 US.

   **Steps to complete electronically in the online application:**
   - Select your Graduate Program
   - Review requirements and deadlines
   - Review Checklist of Application Materials
   - Report Prior Schools
   - Report English Proficiency Scores (International applicants only)*
   - Self-Report GRE Scores
   - Print Application
   - Pay Fee and Submit Application

   * Applicants, whose native language is not English and who have not received a bachelor or master's degree from an accredited US institution, must have a valid official score from TOEFL, TSE, or IELTS. Request Educational Testing Service, PO Box 6151, Princeton, NJ 08541-6151 to forward your score report using UW institution code #4854.

   **(b) College of Engineering (MSE/MS Program)** – Materials listed below are to be mailed to the relevant/designated department’s Graduate Adviser. See page 8 for a list of advisers.

   - Copy of Graduate School Application
   - Completed College of Engineering Interengineering Graduate Studies MSE/MS program application
   - Proposed Plan of Study
   - Proposed Thesis Topic
   - Statement of Objectives that provides education and career goals
   - Three (3) letters of recommendation.
   - One official transcript from each collegiate institution attended
   - Official GRE scores must be reported to UW institution code 4854.

4. **Other Requirements** – MSE/MS applicants are required to have a bachelor’s degree in engineering, mathematics, or science with a junior-senior GPA of 3.0. Students entering without an accredited engineering undergraduate degree and seeking an MSE degree must satisfy the minimum general requirements of the College of Engineering baccalaureate degree. Students are expected to complete the degree within two years. Situations requiring longer than this must be approved by the student's faculty advisor.
Minimum Undergraduate Technical Requirements for Application

<table>
<thead>
<tr>
<th>Course</th>
<th>MSE</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Fundamentals</td>
<td>*24cr</td>
<td></td>
</tr>
<tr>
<td>Engineering Major</td>
<td></td>
<td>*cr</td>
</tr>
<tr>
<td>Math/Science Major</td>
<td></td>
<td>*cr</td>
</tr>
</tbody>
</table>

*Course specified by graduate program advisors.

See page 7 for a listing of required and recommended courses.

Masters Graduation Requirements (39 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>MSE</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering 400 and 500 level (minimum)</td>
<td>30cr</td>
<td>30cr</td>
</tr>
<tr>
<td>Engineering 400 level (maximum 9 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering 500 level (minimum 21 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thesis</td>
<td>9cr</td>
<td>9cr</td>
</tr>
</tbody>
</table>

Program Administration

The program is administered by the Council on Educational Policy (CEP). Admission to the program will be determined by the Graduate Admissions committee in the engineering department of the student's faculty advisor. When the student has been admitted to the program, the faculty advisor and student will be responsible for identifying a supervisory committee for the student. The committee will consist of at least three faculty members: at least two from different engineering departments and the student’s advisor. The committee is responsible for approving the student’s plan of studies and research, following the student’s progress, conducting the final MSE/MS examination, and determining whether the approved plan has been satisfactorily completed. Any questions or problems that arise that cannot be solved by the Supervisory Committee can be addressed by the CEP. The CEP can be reached through the UW College of Engineering’s Office of Academic Affairs, located at:

356 Loew Hall, Box 352180
Seattle, WA 98195-2180
Telephone: (206) 685-2738
Fax Number: (206) 685-0666

The Technical Japanese program and the Manufacturing (EDGE) program offer a Master of Science in Engineering (MSE) degree. MSE and/or MS degrees are offered in addition to the departmental masters degree in Chemical Engineering, Civil Engineering, Industrial Engineering, Materials Science & Engineering, and Mechanical Engineering. All are without departmental or major field designation. Applications for admission to any of these programs are coordinated by the relevant/designated department’s Graduate Adviser; and students’ files are kept there.

The University of Washington reaffirms its policy of equal opportunity regardless of race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, or status as a disabled veteran or Vietnam era veteran in accordance with University policy and applicable federal and state statutes and regulations.

The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264 (FAX), or dso@u.washington.edu.
# UNIVERSITY OF WASHINGTON
## COLLEGE OF ENGINEERING
### Interengineering Graduate Studies
#### Master of Science in Engineering and Master of Science

## A. GENERAL INFORMATION

1. Quarter and year applying for:
   (Indicate year and check one box)
   - Year ________
   - Autumn
   - Spring

2. Social Security Number
   (optional but aids processing)

3. Legal Name
   (Last)
   (First)
   (Middle)

4. UW Student ID # (If applicable)

5. Permanent Address
   (Street and Number)
   (City)
   (State)
   (Zip)

6. Phone Number(s)
   (Also indicate when you can be reached)

7. Notification Address
   (if different from address in box #5)

8. Sex (Optional)
   - Male
   - Female

9. Birthdate
   (Month/Day/Year)

10. Birth Place

11. Ethnic Origin (optional)
   - American Indian
   - Asian or Pacific Islander
   - Black or African American
   - Caucasian
   - Hispanic
   - Other (Please specify below)

12. Are you a resident of Washington State?
   - Yes (Skip to #14)
   - No (Go on to #13)

13. Will you establish residency in Washington?
   - No
   - Yes When? ______________

14. Are you a US Citizen?
   - Yes (Skip to #19)
   - No (Go on to #15)

15. What is your country of citizenship?

16. What is your country of permanent residence?

17. What is your US Status?
   - Immigrant/Perm. Resident (Skip to #19)
   - Refugee (Skip to #19)
   - International Student (Go on to #18)

18. Visa Type (F1, A1, E, etc.)

19. Undergraduate Degree(s)

20. Proposed Study Areas

21. Desired starting quarter

## B. COLLEGE CREDITS & GPA

### College
- List all colleges and universities you have attended or are attending (include University of Washington)

<table>
<thead>
<tr>
<th>NAME OF COLLEGE OR UNIVERSITY</th>
<th>2 OR 4 YEAR</th>
<th>LOCATION</th>
<th>DATES ATTENDED</th>
<th>MAJOR</th>
<th>DEGREE &amp; DATE RECEIVED OR EXPECTED</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

### GPA
- List the cumulative and technical GPA and number of credits for each category below

<table>
<thead>
<tr>
<th>COLLEGE OR UNIVERSITY</th>
<th>CUMULATIVE GPA</th>
<th>CREDITS</th>
<th>TECHNICAL GPA (includes Math, Physics, Chemistry &amp; Engineering)</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Washington</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Other 2/4 year schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total for All Schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
C. EMPLOYMENT INFORMATION

Employment – List all post-high school employment

<table>
<thead>
<tr>
<th>DATES (start with most recent)</th>
<th>EMPLOYER (Company name and location)</th>
<th>POSITION</th>
<th>HOURS (per week)</th>
</tr>
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</table>

D. PROPOSED THESIS TOPIC

Attach a minimum one-page statement that states your MSE/MS thesis topic.

E. STATEMENT OF OBJECTIVES

Attach a minimum one-page statement that states your MSE/MS degree objectives.

F. PROPOSED MSE/MS PLAN OF STUDY

Complete the proposed MSE/MS Graduate Degree Plan worksheet which is attached to this application packet. The plan must meet the Interengineering requirements and be approved and signed by an advisor.

G. APPLICANT CERTIFICATION

I certify that all information provided herein is true, correct, and complete, and that I am the sole author of sections D and E. I understand that failure to submit all required documents by the application deadline can result in denial of admission to an engineering department.

______________________________ Date
Signature of Applicant

APPLICANT CHECKLIST

☐ I have completed parts A, B, C, D, E, F and G of the application, and I have signed the applicant certification in part G.

☐ Section F meets all program requirements and is approved and signed by an advisor.

☐ I have attached all required transcripts.

After you have checked the above, mail the items that are listed in section 3 (b) to the relevant/designated department’s Graduate Adviser. A list of advisers is on page 8.
PERSONAL INFORMATION

Name ______________________________________ Date _________________________
Address ______________________________________________________________________
Proposed Study Area ______________________________________________________________________
Undergraduate degree(s) ______________________________________________________________________

PROPOSED DEGREE AND AREA OF STUDY

MSE _____ MS _____ Area of Study ____________________________________________

MSE/MS GRADUATE DEGREE PLAN

400 Level: (9 credits maximum)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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</table>

500 Level: (21 credits minimum)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

THESIS: (9 CREDITS)

( 9 )

TOTAL ALL CREDITS (39 MINIMUM) _____

Approval of Departmental Advisor – After review of the applicant’s proposed Plan of Study, please indicate your approval below.

Advisor’s Signature ___________________________ Date _________________________

Signature of applicant to Interengineering MSE/MS Degree Program. I certify that all statements contained in this Application to Interengineering Graduate Studies are true to the best of my knowledge.

Signature ___________________________ Date _________________________

NOTE: Students who do not have an accredited undergraduate engineering degree, please complete the section on the back of this page.
NOTE: This section is to be completed by students who do not have an accredited undergraduate engineering degree and are applying for an MSE degree.

**REQUIRED UNDERGRADUATE COURSES**

*Instructions: Please enter the quarter and year that you have taken the following required University of Washington engineering undergraduate courses (or equivalent).*

### MATHEMATICS (24 credits minimum)

<table>
<thead>
<tr>
<th>Required Course</th>
<th>Quarter/Yr.</th>
<th>Course Number/Name</th>
<th>Cr.</th>
<th>Quarter/Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 124 Calc Anal Geom I</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Math 125 Calc Anal Geom II</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Math 126 Calc Anal Geom III</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Math 307 Intro to Diff. Equations</td>
<td>(3)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Math 308 Linear Algebra w/ Appl.</td>
<td>(3)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommended Course</th>
<th>Quarter/Yr.</th>
<th>Course Number/Name</th>
<th>Cr.</th>
<th>Quarter/Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 309 Linear Analysis</td>
<td>(3)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Math 324 Advanced Calc I</td>
<td>(3)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>IE 315 Prob &amp; Stat for Eng</td>
<td>(3)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
</tbody>
</table>

**Total Math Credits ______**

### NATURAL SCIENCE (25 credits minimum)

<table>
<thead>
<tr>
<th>Natural Science Course</th>
<th>Quarter/Yr.</th>
<th>Course Number/Name</th>
<th>Cr.</th>
<th>Quarter/Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 142 General Chemistry I</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Chem 152 General Chemistry II</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Phys 121/131 Mechanics and Lab</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Phys 122/132 Electro and Lab</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>Phys 123/133 Waves and Lab</td>
<td>(5)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
</tbody>
</table>

**Total Natural Science Credits ______**

### ENGINEERING UNDERGRADUATE COURSEWORK (24 credits minimum)*

<table>
<thead>
<tr>
<th>Engineering Course</th>
<th>Quarter/Yr.</th>
<th>Course Number/Name</th>
<th>Cr.</th>
<th>Quarter/Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 123 Intro Engr Graphics</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>CSE 142 Computer Programming I</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>MSE 170 Fundmnt Mat Science</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>AA 210 Engineering Statics</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>EE 215 Intro to EE</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>CEE 220 Intro Mech of Mat</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>ME 230 Kinematics &amp; Dynamics</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
<tr>
<td>CHEME 260 Thermodynamics</td>
<td>(4)</td>
<td>__________</td>
<td>( )</td>
<td>__________</td>
</tr>
</tbody>
</table>

**Total Engineering Undergrad Credits ______**

*Note: Required engineering courses will vary depending on MSE program objectives.*
Engineering Department
Graduate Advisers

When mailing information to the individuals listed below, the rest of the mailing address is:

University of Washington
Seattle, WA 98195-___ _ ___ (use last four digits of campus box number)

Aeronautics & Astronautics
206 Guggenheim Hall, Box 352400
Wanda Frederick
phone: 206/616-1113
wanda@aa.washington.edu

Bioengineering
1705 NE Pacific St., N107-H, Box 355061
Dorian Taylor
phone: 206/685-3494
dst@u.washington.edu

Chemical Engineering
105 Benson Hall, Box 351750
Dave Drischell
phone: 206/543-2252
advising@cheme.washington.edu

Civil and Environmental Engineering
201F More Hall, Box 352700
Lorna Latal
phone: 206/543-2574
ceginfo@u.washington.edu

Computer Science & Engineering
AC101 Allen Center, Box 352350
Lindsay Michimoto - 206/543-5758
lindsaym@cs.washington.edu
Dave Rispoli - 206/543-5848
rispoli@cs.washington.edu

Electrical Engineering
AE 100L Allen Center, Box 352500
Scott Latiolais
phone: 206/221-7913
latiolais@ee.washington.edu

Industrial & Systems Engineering
G7 ME Building, Box 352650
Jennifer Tsai
phone: 206/543-5041
leadvise@u.washington.edu

Materials Science & Engineering
302A Roberts Hall, Box 352120
Kathleen Elkins
phone: 206/616-6581
kelkins@u.washington.edu

Mechanical Engineering
143 ME Building, Box 352600
Maria Tovar Hopper
phone: 206/543-7963
mariah3@u.washington.edu

Human Centered Design & Engineering
Gian Bruno
211 Engineering Annex, Box 352195
206/543-1798
gbruno@u.washington.edu