Master of Engineering

Admission Requirements

Completion of an undergraduate degree in Nuclear Engineering or in another related engineering or science discipline is required for admission to the M.Eng. degree program in Nuclear Engineering. Students should have at least a 3.00 (4.00 base) junior-senior average to be considered for admission.

Provisional Admission

Provisional admission (non-degree status) is a temporary classification in which an applicant may remain for a period of no longer than 2 semesters following admission or the time it takes to accrue 15 credits. If the deficiencies that caused the provisional admission are not corrected by this time, the student may be dropped from the program.

Examinations for Admission

Test of English as a Foreign Language (TOEFL). To qualify for admission, an international student must achieve a minimum TOEFL score of 550 on the paper-based test, or a minimum score of 80 on the internet-based test with a minimum of a 19 in the speaking section. This requirement is waived if the student's native tongue is English or if the student received baccalaureate or master's degrees from an institution in which the language of instruction was English.

Graduate Record Examination (GRE). All students must submit scores on the general aptitude tests of the GRE prior to admission consideration.

Program Requirements

Each of the following requirements must be met in order for a student to be approved for graduation:

1) A minimum of 30 graduate credits must be earned. Only grades of A, B, and C are accepted for graduate credit.

2) A minimum grade point average (GPA) of 3.00 is required, not counting grades obtained in NucE 596 Individual Studies.

3) At least twelve (12) 400- or 500-level course credits must be taken as NucE courses.

4) At least eighteen (18) of the 30 required credits must be in 500-level courses. This includes NucE 596 as well as any 500-level NucE courses taken to satisfy requirement #3 above. At least six credits must be NucE 500-level courses.

5) Specific course requirements

a) NucE 301, 302, 403, 450 or their equivalent. Students with an undergraduate or graduate degree in Nuclear Engineering will usually have completed the equivalent of these courses. Students whose baccalaureate degree is not in nuclear engineering have two ways of fulfilling the undergraduate requirements. They can take NucE 497A, a three-credit reactor theory course, which is considered an
acceptable substitute for NucE 301 and 302. NucE 403 is offered in residence and distance. It is recommended that students who have not had reactor theory take NucE 403. Courses below the 400 level do not count toward the graduate program. The intention in the NucE 450 requirement is to make sure the entering student has had an adequate laboratory experience in (at least) radiation detection and measurement. An alternative to NucE 450 is NucE 497D (1cr) Radiation and Measurement Detection Lab which is offered biannually in a three day short course format.

6) No formal thesis is required; however, a professional paper is required for the M.Eng degree. Students take three (3) credits of Individual Studies in Nuclear Engineering, NucE 596, which represents formal recognition of the student's effort spent on writing a paper on an engineering subject. It must be approved by the advisor, a reader and the Program Chair.

7) The remaining credits must be courses at the 400- and/or 500-level as selected by the student with approval by the student's advisor as having significance and value for the degree program.

Maintaining Satisfactory Scholarship

A minimum grade point average of 3.00 is required in order to be granted a graduate degree in Nuclear Engineering. In addition, at the end of the initial semester, a student with less than a 3.00 average will be notified by their faculty advisor of future grade point average requirements. These requirements will be developed by the graduate faculty early in the next semester. The Program will review each graduate student's grade point average at the end of each semester.

If in a review of the student's grade point average, the minimum requirements are not met, a letter (signed by the advisor) to the student from the Graduate Faculty of the Nuclear Engineering will state:

a) The requirement(s) which the student has failed to satisfy.

b) The requirement(s) which the student must meet by the end of the next semester.

c) If the next semester requirement(s) set forth in item b. is not met, the faculty will review the student's academic performance at a meeting convened prior to the end of the first two weeks of the subsequent semester. In the absence of extenuating circumstances, the student will be dropped as a regular graduate student immediately following the meeting.

If a student is dropped as a regular graduate student in Nuclear Engineering, continuing nuclear engineering study as a provisional student is possible. The student must be re-admitted into the Graduate School as a nondegree student. Such admission is subject to the recommendation of the Program Chair of Nuclear Engineering, who will act according to the recommendations of the Graduate Faculty developed in (c) above. During nondegree student status, no research credit (NucE 596 may be earned).

The student may petition the Graduate Faculty of Nuclear Engineering for admission as a regular graduate student when their cumulative graduate course grade point average is elevated to 3.00 or greater. A maximum of 15 graduate-level credits earned while a nondegree student will be counted in satisfying the graduate degree requirements in Nuclear Engineering.
Summary of Master of Engineering Degree Requirements

It is the student’s responsibility to ensure that all requirements have been met in a timely manner. Please read carefully the section of this manual titled *Academic Policies*.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Person Responsible</th>
<th>Suggested Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign a faculty member to serve as faculty advisor</td>
<td>Student</td>
<td>Early in first semester or prior to choosing a paper topic</td>
</tr>
<tr>
<td>Establish a program of study</td>
<td>Student, with advisor approval</td>
<td></td>
</tr>
<tr>
<td>Activate your Intent to Graduate on E-Lion</td>
<td>Student</td>
<td>Prior to the Graduate School's deadline date*</td>
</tr>
<tr>
<td>Submit draft copy of engineering paper to faculty advisor</td>
<td>Student</td>
<td>Early in last semester</td>
</tr>
<tr>
<td>Contact the Graduate Secretary to initiate the submission of the Report of</td>
<td>Faculty Advisor in conjunction with the Student</td>
<td>Prior to the Graduate School's deadline date*</td>
</tr>
<tr>
<td>Master's Paper Draft Review.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit final copy of engineering paper to Program Chair</td>
<td>Student</td>
<td>Prior to the Graduate School's deadline date*</td>
</tr>
<tr>
<td>Return keys and any books, software, supplies, etc. to Nuclear Engineering</td>
<td>Student</td>
<td>Prior to departure</td>
</tr>
<tr>
<td>Provide one copy of scholarly paper to advisor</td>
<td>Student</td>
<td>Prior to graduation</td>
</tr>
</tbody>
</table>

*Every semester the Graduate School produces a calendar of deadline dates regarding graduation and thesis approval. This calendar is posted on the Web at: [http://forms.gradsch.psu.edu/thesis/Calendar.pdf](http://forms.gradsch.psu.edu/thesis/Calendar.pdf)