**MS in Electrical Engineering**

**Master of Science in Electrical or Computer Engineering (MS)**

**Admission**

349 Engineering Building West, Columbia, MO 65211
Phone: (573) 882-4436
Email: umcengreecgradoff@missouri.edu
http://engineering.missouri.edu/ece/

**Admission Criteria**

Fall deadline: February 15
Spring deadline: September 1

Note: Applications received after these deadlines will be evaluated as time allows.

- Minimum GPA: 3.0 for the last 60 hours
- Minimum GRE scores:

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<th>When did you take the GRE?</th>
<th>Verbal</th>
<th>Quantitative</th>
<th>Analytical</th>
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<tr>
<td>Prior to August 1, 2011</td>
<td></td>
<td>80th percentile</td>
<td>will be considered</td>
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<tr>
<td>On or After August 1, 2011</td>
<td></td>
<td>80th percentile</td>
<td>will be considered</td>
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International applicants only:

- Minimum TOEFL scores:
  - Internet-based test (iBT): 80
  - Paper-based test (PBT): 550

- Minimum Academic IELTS scores:
  - Listening: 5.5
  - Reading: 5.5
  - Writing: 5.5
  - Speaking: 5.5

**Required Application Materials:**

- Statement of Purpose (upload to the Supplemental information section of the application)
- Copies of your official transcripts (upload to the Educational History section of the application)
- Copies of your GRE scores (upload to the Test Information section of the application)
- Copies of your TOEFL or IELTS Scores (for non-native English speakers only) (upload to the Test Information section of the application)
- 3 letters of Recommendation (the department accepts electronic recommendations – in the recommendation section of the online application, enter the information for three recommenders. Each recommender will receive an email with instructions on how to complete the recommendation). The department does also accept hard copy letters of recommendation. The letters may be mailed to: Office of Graduate Studies, 210 Jesse Hall, Columbia, MO 65211.

To the Office of Graduate Studies:
Official Transcripts. The mailing address is: Office of Graduate Studies, 210 Jesse Hall, Columbia, MO 65211.

Note: when registering for GRE or TOEFL exams, be sure to designate your program of interest at the University of Missouri – Columbia. MU’s Institutional Code is 6875 (no departmental code is necessary).

**Admissions Criteria for the MS in Electrical or Computer Engineering**

To be accepted outright by the director of graduate studies (DGS), the student needs to have a BS degree in either Electrical Engineering or Computer Engineering in addition to meeting the above requirements. Students who meet the academic requirements but have degrees in other engineering or science disciplines can be accepted directly into the MS program by the graduate program committee (GPC). Such students are strongly encouraged to consult with the DGS or their advisor about appropriate bridge courses. Based on individual circumstances, students may be advised to register as an undeclared graduate student to fill in background course work prior to admission into the department.

Students who do not meet the above requirements may still be admitted on probation by the GPC if there are mitigating factors. Students admitted on probation must receive at least a 3.0 GPA for the first 12 hours of graded graduate coursework completed in their first two semesters. Failure to achieve this GPA will result in expulsion from the ECE MS program.

**Appeal Process**

All students have the right to a timely formal appeal to the GPC. Upon receipt of an admission decision or disciplinary action, the student has 10 working days in which to request a formal appeal. The DGS will convene a meeting of the GPC, the student, and the student’s advocate (if appropriate) within 10 working days of receiving the request. The decision of the GPC at the hearing is final.

**Degree Requirements**

To fulfill the requirements for the MS degree, the following rules apply:

- A candidate must complete 30 hours, including at least 12 hours of 8000-level graded course work (exclusive of ECE 8990 or ECE 8085 or ECE 8010 hours).
- At least six of these graded 8000 level course hours need to come from ECE.
- At least 15 hours of graded course work (total combination of 7000 and 8000 level courses, exclusive of ECE 8990, ECE 8085, or ECE 8010 hours) must be taken from the Electrical and Computer Engineering Department course offerings.
- A maximum of six hours of graduate credit may be transferred from another campus in the University of Missouri System or other university, while a maximum of eight hours of graduate credit may be used from a previous MU master’s degree.
- At most, three hours of course work in supervised study (ECE 8010) may be taken during the MS program and they will be graded on an S/U basis.
- At least one course from each of three different emphasis areas must be taken; a minimum of two of the emphasis areas must be in Electrical and Computer Engineering. (Each ECE graduate course is
designated to an emphasis area. Contact the ECE graduate office for a current list.

- A minimum of 3 hours to a maximum of 6 hours of research (ECE 8990) or problems (ECE 8085) are required, based on whether the student writes a master’s thesis or a master’s Report.
- The student’s cumulative GPA must be at least 3.0 to graduate.

The requirements for the MS degree must be met within an eight year period. Each candidate must pass a final oral examination to demonstrate mastery of the work included in the thesis or in a substantial independent project. These MS requirements apply to ECE graduate students first enrolled in MU ECE in the Fall semester 2007 or later. UM ECE graduate students enrolled prior to Fall semester 2007 may choose to follow the MU ECE MS requirements that were in effect for their MU ECE graduate admission semester.

**Academic Probation**

A student whose GPA drops below 3.0 is automatically placed on academic probation. In such a case, the student has one semester to raise his or her cumulative GPA to 3.0. Failure to do so will result in expulsion from the program. Additionally, a student who receives the grade of “C” in 9 hours of coursework will be expelled. As with acceptance, students here also have a right to the same formal appeal process described above.

**Selection of an Advisor**

Students must choose an academic advisor who will then provide guidance for the selection of coursework, and in the choice and execution of a research question. The student’s academic advisor and the Director of Graduate Studies must approve all coursework used to satisfy the credit hour requirements for this degree. After performing satisfactorily for a minimum of one semester, the student, with the advisor’s assistance, completes the Program of Study form that outlines the plan of study for the student’s graduate program. M1 - Program of Study form

The form is forwarded through the DGS to the Office of Graduate Studies for approval. In the event that an advisor retires or leaves MU, he/she may continue to serve as the student’s main advisor unless there is written academic program policy prohibiting such an arrangement. If an advisor is unable or unwilling to continue to serve, the academic program, with the leadership of the DGS, will assist the student to ensure that a replacement is found.

The Program of Study form must be filed with the Office of Graduate Studies by the end of the student’s second semester of enrollment. Upon approval of the program by the Office of Graduate Studies, the student is a candidate for the degree. If changes must be made on a student’s Program of Study form, a Program of Study Substitution form is used.

**Thesis Option**

For students under the thesis option of the MS degree, i.e., students enrolling for ECE 8990, an M-2 Request for Thesis Committee form is required to be submitted for approval by the department DGS and the Office of Graduate Studies by the end of the student’s second semester.

A thesis committee is composed of three members of the MU faculty: a major advisor from the academic program, a second reader from the academic program, and an outside reader who is a member of the graduate faculty from a different MU graduate program. Upon approval of the department DGS, the student may petition the Office of Graduate Studies to allow a person who is not a member of the MU graduate faculty to serve as the third reader. The petition should include a written justification for such a request and a copy of the person’s curriculum vitae. The Office of Graduate Studies maintains copies of curriculum vitae previously received and approved, and if such a request is anticipated, the student should contact the Office of Graduate Studies to see if the curriculum vitae of a particular person is already on file. Students need to supply committee members with copies for review/evaluation at least one week prior to the defense date.

Information about submitting the thesis can be found in the Thesis and Dissertation Guidelines.

**Non-Thesis Option**

For students who enroll in ECE 8085 (Problems), a problem report rather than a thesis is required. The student is not required to submit the M-2 form (request for a thesis committee). Instead, the student must have the report approved by his or her advisor and two other members of the graduate faculty, forming the student’s Problem Committee. It is not required that a member outside of ECE be included, although it is permissible for such a member of the MU graduate faculty to be appointed. At least one of the three members must have a primary academic appointment in ECE. Students need to supply committee members with copies for review/evaluation at least one week prior to the defense date. At that time, an announcement is to be made to the department faculty and graduate students to allow them to attend the defense. The student must defend the problem report to the committee, and make any needed adjustments in format and corrections/clarifications based on input from the committee. A final copy of the problem report must be filed with the ECE graduate office.

**Report of the Master’s Examining Committee**

The purpose of the M-3 Report of the Master’s Examining Committee Form is to have an official record of the final examining process, whether it is a thesis defense or presentation of a report. The student’s committee will indicate on this form if the student has passed the final exam. This form must be submitted to the Office of Graduate Studies by a deadline for the semester in which the students plan to graduate. For a report option, the 3rd reader of the committee may be from the student’s department. The form is due in the Office of Graduate Studies two weeks prior to graduation.