

Requirements and Guidelines for the Master of Science Degree in Electrical Engineering

Revised 9/05

I. Minimum Entrance Requirements

Admission to the M.S. Program in EECS is subject to final approval by the EECS Graduate Committee. The following are minimum guidelines which are used by the EECS Graduate Committee in evaluating applications. Students meeting these guidelines will be selected on a competitive basis.

- a) Minimum Qualifications to Apply for Unconditional Admission:
 1. Bachelor of Science degree in Electrical Engineering or Computer Engineering.
 2. Undergraduate GPA of 3.0/4.0 or equivalent.
 3. Graduation from an ABET accredited program.
- b) Applicants for admission from non-accredited program, or with an undergraduate GPA below 3.0, or with a non-EE major in a related area, will all be carefully considered for admission by the EECS Graduate Committee.
Remedial work may be required. Applicants with a baccalaureate degree in Computer Science should see the separate *Requirements and Guidelines for the Master of Science Degree in Computer Science*.

II. Degree Requirements

a) Core course requirements

All students must obtain a grade of B or better in at least three (3) of the following courses:

- EE 506 Advanced Electronic Circuits I
- EE 528 State Variable Methods in Control
- EE 543 Electromagnetics I
- EE 555 Introduction to Electric Power System Engineering and Analysis I
- EE 561 Digital Systems I
- EE 562 Digital Systems II
- EE 571 Stochastic Processes
- EE 616 Computer Aided Analysis of Electronic Circuits
- EE 570 Communication Engineering
- EE 590 Manufacturing Applications of Java

Ohio University B.S. graduates who have credit in the 400-level versions of the courses above may use these courses to satisfy the core course requirements provided the grade received was B or better. For every core course not taken for this reason, another suitable graduate course must be taken to replace it.

b) Grade point average for graduation

In order for the Master of Science degree to be awarded, a candidate must have earned a grade point average no lower than 3.0 for all programmed work taken at Ohio University. The academic standards of the Russ College of Engineering and Technology must be met.

c) Additional Grade Standards

No more than six (6) quarter hours below B- and no hours below C- may be applied toward fulfilling degree requirements. More than twelve (12) hours below B- will result in the removal of the student from the M.S. program.

d) **Probation Status**

A candidate having an overall grade point average below 3.0 will be placed on probation status.

e) **Retention in Program**

Should a candidate's grade point average fall below 3.0 after 23 or more hours of programmed work has been accumulated, one term on probation status will be allowed. Failure to raise the grade point average to 3.0 or above at the end of that term will result in the removal of the student from the program.

f) **Grade Point Calculations**

The grade point average is based on all applicable work on the plan of study, excluding transfer credits.

g) **Academic Requirements**

The following are specific course, thesis, and project requirements for both thesis and non-thesis plans.

Plan A (with Thesis)

1. At least 47 quarter hours of courses for graduate credit with an average grade of B or better and including:
 - a) Not more than 12 hours of graduate credit transferred from another institution.
 - b) A satisfactory thesis (9 hours of EE 695). The thesis represents a piece of sound engineering work presented in a scholarly manner.
 - c) At least 36 hours of formal graduate course work exclusive of Thesis (EE 695) and Graduate Research Seminar (EE 698).
 - d) At least 15 hours of formal graduate course work numbered 600 or above of which 12 must be EE courses.
 - e) No more than 6 credit hours of Independent Study or other informal coursework will count toward degree requirements.
 - f) Satisfactory completion of core course requirements.
 - g) At least 18 hours of EE courses.
 - h) A passing grade in two (2) quarters of EE 698 Seminar. Students should register for one (1) hour each of the two (2) quarters. EE 698 is offered on a Pass/Fail basis. All students are required to present their thesis research work in the seminar. The student cannot present their work unless the thesis advisor informs the instructor that the student is prepared to present.
2. Satisfactory performance on a final oral examination with emphasis on the thesis investigation.

Plan B (without Thesis)

1. **Requires prior approval of EECS Graduate Committee. Students should note that the EECS Graduate Committee rarely approves Plan B requests. Anyone considering this option should contact the Graduate Chair for advice on eligibility.**

III. Committee and Advisor

- a) Upon entering the program, the Chair of the EECS Graduate Committee acts as the student's temporary advisor until a thesis advisor has been obtained. In most cases, the Chair will not assist the student with course selection; rather, he or she will direct the student to an EECS faculty member with similar research interests for advice on course selection. The student should understand that giving such advice does not mean that the faculty member has agreed to serve as the student's thesis advisor. Typically, this faculty member will aid the student in course selection for only one or two quarters.
- b) The thesis advisor is a faculty member in the student's field of interest who will confer with the student and plan a program of study no later than the beginning of the first quarter after the student has completed 15 hours of formal course work. In most cases the major advisor is also the student's thesis director (delete). The student is expected to inform the thesis advisor of his or her progress on a regular basis.
- c) The student's examining committee is chosen in consultation with the thesis advisor before the completion of 15 hours of formal course work. The examining committee consists of the student's thesis advisor as chair, two other EECS faculty members, and a Russ College of Engineering and Technology representative who is recommended to, and approved by, the Associate Dean for Research and Graduate Studies of the Russ College of Engineering and Technology.

IV. Program of Study

- a) Immediately after the selection of the student's examining committee the student must plan a program of study in consultation with the thesis advisor. The program of study is recorded on a form provided by the EECS Graduate Committee. This form is available in the EECS office. After completing the form the student must obtain the signatures of the thesis advisor and all members of the examining committee from the EECS department. The form is then returned to the EECS office for final approval by the EECS Graduate Committee Chair. A copy of the form, with all signatures obtained, must be submitted to the Dean's office.
- b) **The program of study must be submitted by the beginning of the first quarter following the student's completion of 15 hours of formal course work.**
- c) Changes to the program of study may be made by obtaining the appropriate form from the EECS office. Signatures of all examining committee members and the major advisor must be obtained. The completed form is then returned to the EECS office for final action by the Chair of the EECS Graduate Committee. A copy of the form, with all signatures obtained, must be submitted to the Dean's office.
- d) No changes in the program of study will be approved for the addition or deletion of a course for which a grade has already been received.

V. Transfer of Credit

A maximum of 12 quarter hours, or the equivalent, may be transferred from an accredited university and applied toward a student's M.S. degree providing:

- a) The credits are designated at the transferring institution as graduate level only.
- b) The credits were obtained by taking formal coursework within the past five years. No correspondence credit will be accepted.
- c) Grades earned on all transfer credits are B or better.

VI. Time Limit

Students must complete all requirements for the degree within six calendar years from the first quarter of study in the M.S. program.