

# **Revised Electrical Engineering Masters Degree Offerings**

**Approved by the University of Minnesota Regents  
July 13, 2005**

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Director of Graduate Studies  
Electrical Engineering Graduate Program**

## 1.0 Summary of Revisions

The faculty of the Electrical Engineering Graduate Program have approved the following changes to the MS and MEE degree programs:

- Discontinue the Plan B (Project) option for completing the Master of Science in Electrical Engineering (MSEE) Degree; effective Fall semester 2005.
- Discontinue the Master of Electrical Engineering (MEE) (Professional) Degree; effective Fall semester 2005.
- Add the MSEE Plan C (Coursework Only) option for completing the MSEE Degree (with project, written report, and oral presentation course experience requirements). This differs from the MSEE Plan B in that there is no defense of your Plan C in front of a Graduate Faculty Committee

The Plan A (Thesis) option for completing the Master of Science in Electrical Engineering (MSEE) Degree stays the same.

The changes will take effect at the beginning of the Fall Semester 2005

### 1.1 Students who wish to change into the new MSEE Plan C Coursework Only degree

Any student who is now an admitted masters degree graduate student and wishes to change their status to the new Plan C (Coursework Only) degree may do so during the summer or fall of 2005.

MEE students registered before Fall 2005 who would like to complete their current MEE degree may complete your degree as planned. If would like to change to the MSEE Plan C Coursework Only degree, you should fill in the form at the end of this document as well as fill in a new Degree Program Form and submit them to Linda Jagerson.

MSEE students registered before Fall 2005 who have declared your degree objective as MSEE Plan B by completing a Degree Program Form, may complete the MSEE Plan B degree only if you have registered for Plan B Project credits no later than Summer 2006. Students who are currently working on a Plan B project, but have not registered for Plan B Project credits by Summer 2006 and who have not previously filed a degree program form for MSEE Plan B, must complete the MSEE Plan C (Coursework Only) degree.

If you are an MSEE student and have already filled your Degree Program Form and you wish to change to a different plan, you need to amend the Degree Program Form by filling in a new form and submitting it to Linda Jagerson in the EE Graduate Program Office. If you have not submitted the Degree Program Form then you may indicate your choice when you submit the form (note of course that you must have met the requirements of the plan you select). Please fill in the form at

the end of this document and submit it right away to Linda Jagerson so we have an idea of what your plans are.

New MSEE students, beginning in Fall 2005, will not have the option to choose MSEE Plan B.

New MEE students, beginning in Fall 2005, will be automatically changed to MSEE Plan C (Coursework Only).

Students should read the requirements for the MSEE Plan C Coursework Only degree carefully to be sure that they will complete the coursework requirements by the time they expect to graduate.

The Electrical Engineering Graduate Program will shortly publish a list of courses that can be taken to fulfill the project requirements (see section 2.2.3 of this document for details).

## 2.0 Details of Revisions

### 2.1 Existing MSEE Plan A and MSEE Plan B and MEE Degree Programs

The Electrical Engineering Graduate Program presently has the following masters programs:

- MSEE Plan A Thesis Program
- MSEE Plan B Project Program
- MEE Degree Coursework Only Program

### 2.2 Changes to MSEE Degree Program

#### 2.2.1 *MSEE Plan A Thesis Program to remain unchanged*

<b>MSEE Plan A</b>	
Courses	Semester Credits
EE Graduate Courses	14 (there are no required courses for this requirement)
Minor Courses	6
Thesis	10
Total	30

**Final Presentation and Oral Exam:** Consistent with Graduate School Plan A requirements, all MSEE Plan A students are required to present a written thesis to a three member faculty committee for approval and pass an oral exam where their research results are presented.

**Effect on Current Students:** The proposed changes will have no effect on current MSEE Plan A students who desire to stay in the MSEE Plan A program.

**2.2.2 Discontinue Plan B Option for MSEE**

MSEE Plan B	
Courses	Semester Credits
EE Graduate Courses	14
Minor or Related Field Courses	6
Additional Courses	7
Plan B Project	3
Total	30

**Plan B Project Courses dropped from catalog beginning Fall 2006:** The EE courses, EE8961 and EE8963 are used to record Plan B project credits (EE8961 is used for the first such project, and EE8963 is used for the second project if one is done).

**Effective Date:** September 2005. Applications for the MSEE Plan B degree option will be closed beginning Fall 2005.

**Effect on Current Students:** Current MSEE Plan B students who remain in good standing will be allowed to complete their program and graduate, or they may switch to the MSEE Plan C Coursework Only degree. All of our current MSEE Plan B graduate students will be notified of this option at the beginning of the Fall 2005 semester and will have until the end of the Fall 2005 semester to indicate their desire to switch.

### 2.2.3 New MSEE Plan C Coursework Only Program

The new MSEE Coursework Only degree credit requirements are shown below:

MSEE Coursework Only Degree	
Courses	Semester Credits
EE Graduate Courses	14 (3 credits of which must be project credits <sup>1</sup> )
Minor or Related Field Courses	6
Additional Courses	10
<b>Total</b>	<b>30</b>

**Project Requirement:** Students will be required to work on a project, either alone or jointly with other students, present the results of their project in the form of a written report and give an in-class oral presentation of the work. The project course must be an EE graduate course. This requirement can be met in three ways:

- 1) **Taking an EE course with project requirements:** Students can take classes that have a combination of lectures, labs, homework, and exams as well as projects and presentations that are done singly or in groups. Students wishing to take such a course for project credit must prepare a written report, have it signed by the course instructor and submit it to the DGS<sup>2</sup>. Students should indicate on their Degree Program Form which course they intend to count as the project course.
- 2) **Taking one, two, or three different courses with project, written report, or oral presentation requirements:** That is, students may opt to fulfill the project, written report and oral presentation requirements in different courses. Students must submit the written report with course instructor signature to the DGS. Students should indicate on their Degree Program Form which courses they intend to count as the project course, written report course, and oral presentation course.
- 3) **Taking an EE Project Course:** This option is similar to the Plan B project where a student works on the project directly with an advisor and presents the results to the advisor. The major change from the Plan B Project is that there will be no requirement for a faculty committee or formal oral exam. Students wishing to take a project course for project credit must prepare a written report, have it signed by the advisor and submit it to the DGS<sup>3</sup>. A maximum of 6 credits of such courses can be included in the student's program.

<sup>1</sup> The DGS will post a list of EE courses that have project content and can be taken to fulfill this requirement.

<sup>2</sup> The course instructor's signature will signify that the student's report received a passing grade.

<sup>3</sup> The advisor's signature will signify that the report is satisfactory and that the student passed the project course.

None of the options above will require a traditional faculty committee or a traditional oral exam and all work will be completed and presented within the course itself, either to a class or to the advisor. Students will be required to submit a written report on their project to the Director of Graduate Studies. The written report must have the signature of the course instructor or the student's advisor. A total of three semester credits of such coursework will be required for the MSEE degree with coursework only option. The Electrical Engineering Graduate Program will designate which EE graduate courses meet the required "project and presentation" requirements and the DGS will be responsible for verifying that they have been included in the student's Degree Program Form. Two new project courses similar to the present EE8961 and EE8963 will be inaugurated that are titled MS Coursework Project for students who wish to do a project under an advisor. (EE8961 and EE8963 will be dropped once all students in the program with Plan B option have graduated.)

**Admission Requirements:** Admission requirements for the MSEE Degree Coursework option will be the same as those of the MSEE Plan A (Thesis) program.

**Effective Date:** Applications for the MSEE degree with coursework only option will be accepted starting Summer 2005.

**Final Presentation and Oral Exam:** There will be no final oral exam for the MSEE Plan C Coursework Only option. The DGS will sign the final oral report forms to verify to the Graduate School that the student has completed all requirements for the degree.

**Effect on Current Students:** All students enrolled as MEE and MSEE Plan A and Plan B students will be given the option to change their status to MSEE Plan C Coursework Only degree, or to remain in their current degree program. All such students will have until the end of the Fall 2005 semester to indicate their desire to switch.

### **2.3 Discontinue the MEE Degree Program**

The MEE degree program will be dropped from the catalog. All students enrolled as MEE students will be given the option to change their status to the MSEE Plan C Coursework Only degree, or to remain in the MEE degree program. Students who wish to remain in the MEE program will be allowed to complete the requirements for that degree assuming that they remain in good standing. The current requirements for the MEE degree are:

MEE Coursework Only Degree	
Courses	Semester Credits
EE Graduate Courses	14 (no required courses)
Minor Courses	6
Additional courses	10
Total	30

**Effective Date:** September 2005. Applications for the MEE degree will be closed starting Fall 2005.

**Effect on Current Students:** All students enrolled as MEE students will be given the option to change their status to MSEE Plan C Coursework Only degree, or to remain in the MEE degree program. All of our current MEE graduate students will be notified of this option at the beginning of the Fall 2005 semester and will have until the end of the Fall 2005 semester to indicate their desire to switch. Students staying in the MEE program will be given until the standard seven year completion time from the beginning of their program to complete the MEE degree.

## **2.4 PhD Degree Program**

The PhD program will not be affected by the changes to the MSEE program.

## **3.0 Conclusions**

### **3.1 Final Electrical Engineering Graduate Degree Offerings**

The final set of graduate degrees offered by the Electrical Engineering Graduate Program will be as follows:

- MSEE Plan A (Thesis) Degree
- MSEE Plan C Coursework Only Degree
- PhD Degree

## Application to change status to MSEE Plan C Coursework Only degree

Name: \_\_\_\_\_

Student ID# \_\_\_\_\_

Student's Current Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Student's email: \_\_\_\_\_

Student's Advisor: \_\_\_\_\_

Presently pursuing the following program:

MSEE Plan A

MSEE Plan B

MEE

Student Signature: \_\_\_\_\_

If you are planning to change your status to the MSEE Plan C Coursework Only please fill in this form and return it to Linda Jagerson in the ECE Office.