Requirements for Graduation

Master's Degrees in EECS

Prasad Kulkarni

(Credits: Dr. Jim Stiles)

Thesis or no? Focus Area or no?

Each MS student in our department must make **two binary decisions**:

1. Do I write a Master's thesis **OR** do I write a Master' project?

2. Do I select a focus area for my plan of study **OR** do I create my own plan?

Foundational and Elective Courses

Each degree program (i.e., EE, CS, CoE) has a list of "**foundational**" and "**elective**" courses.

Your plan of study will be "**automatically**" approved if it includes:

* 3 (thesis) or 4 (non-thesis) **foundational** courses, and

* At least **four elective** courses, and

* At most one "**open elective**", and

* EECS 802, and

* **no more** than 2 "undergraduate" courses.

<u>Custom Focus Area</u>

Students **are allowed to deviate** from a focus area!

* However, this plan of study will **not "automatically"** be approved.

* **Instead**, a **justification** for this deviation must be provided.

If the justification is convincing, then your **committee** and the **graduate director** (i.e., me), will approve.

Your "deviate" plan of study must be:

* **Intellectually coherent**—the collection of courses is consistent with an **academic goal**.

* **Reflective of your degree**—you **can't** take a bunch of CS courses if you are in the MSEE program.

In addition for committee approval…

If you **deviate** from a focus area, your plan of study must—**in addition to** getting committee and director approval—have:

* a **minimum of 5** "real" EECS courses numbered 700 or higher, and

* no more than **9 hours** of courses **outside** EECS, and

* EECS 802, and

* no more than **2 "undergraduate"** (i.e., 500 or 600 level) courses.

The plan of study

Plan of Study is a "**School of Engineering**" form, not just EECS.

It is a web-based form: gradplan.engr.ku.edu

You are required to complete it during your **first semester**!

Degree Information	Update Degree
Degree	Master of Science in Electrical Engineering (Non-thesis)
Admit Term	Fall 2014
KU Employment	None
Topic of Interest	Applied Electromagneics
Minimum Number of Hours	30
Estimated Graduation	Spring 2016
Notes	
Previous Degrees	
B.S. in EE — Completed Spring 1994	

Select your committee

Committee Signoff Information

Member Type	Name	Signed?	Action
Graduate Director	James Stiles ✉	Unsigned	
Chair	Arvin Agah ✉	Unsigned	Remove
Optional Member			Add Member
Optional Member			Add Member
Optional Member			Add Member

Don't worry, you can **change** your committee later!

Plan your courses

You must update **each semester**—record your grades.

You can **change** your plan of study (most do), but the committee must **reapprove**.

Make sure to **justify** changes/deviations using the **"notes"** section!

It is imperative to you that this plan be approved.

Courses to be Completed   Update Courses

	Course	Type	Title	Hours	Term	Instructor	Grade
1.	EECS 622	Core	Radio Engr	3.0	Fall 2014		C
2.	EECS 723	Core	Microwave Engr	3.0	Fall 2014		D
3.	EECS 820	Core	Emag	3.0	Fall 2014		F
4.	EECS 721	Core	Antennas	3.0	Spring 2015		
5.	EECS 802	Core	Graduate Seminar	1.0	Spring 2015		
6.	EECS 825	Elective	Radar	3.0	Spring 2015		
7.	EECS 744	Elective	DSP	3.0	Fall 2015		
8.	EECS 823	Elective	Remote Sensing	3.0	Fall 2015		
9.	EECS 861	Elective	Random Processing	3.0	Fall 2015		
10.	EECS 891	Research	Project	3.0	Spring 2016		
11.	EECS 965	Elective	Detection Estimation	3.0	Spring 2016		
			Total Hours:	31.0			

Thesis or project?

Thesis: The goal is to **answer an important question**—one whose answer has **not yet** been determined!

* **6 hours** of EECS 899.

* Thesis document should be high-quality.

* Must orally "defend" thesis.

Project: The goal is to **apply your engineering acumen to create something useful**—something that can **only** be created by someone with a Master's degree level of knowledge.

* **3 hours** of EECS 891

* Project report documents project implementation.

* Must orally report results.

Once you commit, you must finish

You **can** petion to change your degree plan from thesis to non-thesis (or vice versa).

This petion requires the approval of both your advisor, and the **graduate director** (me).

You should make a firm decision **in your first year**—after that, you are **committed**
- Advisor approval and justification needed for later changes

M.S.Defense

General **oral examination** must be taken in the **last semester** of student's program.

The student's committee will determine if the written thesis/project, oral presentation and **general knowledge of the discipline** meet EECS, School of Engineering and University of Kansas standards.

At least **three weeks prior** to your M.S. defense:

* Check with faculty adviser and the EECS Graduate Office to ensure **all degree requirements** have been completed.

* **Schedule** a time and location for the defense with committee members and coordinate with staff to reserve the room.

* Submit completed **defense notice** to the EECS Graduate Office.

* Distribute a **final copy** of thesis/project to committee members for their comments.

<u>Graduation Checklist</u>

1. "Apply to Graduate" in **Enroll & Pay** .

2. Verify **plan of study** is complete, correct, approved and on file in the EECS Graduate Office.

3. Complete and return **KU Scholarworks Electronic Theses and Dissertations Release form** (not for project).

4. Complete and return the **Engineering Career Center MS or PhD Graduation Report form** to RGP.

5. Once you have passed your final defense turn in your signed Title Page and Acceptance Pages to **2001 Eaton Hall**.

6. Upload a PDF version of your thesis (not projects) to KU Graduate studies.

7. More details at:
    i. https://engr.ku.edu/graduate-preparing-to-graduate

Ignorance is no excuse before the law

There is an **extensive description** of **all** requirements on the EECS website: www.eecs.ku.edu/current_students/graduate/masters.

It is up to **you** to make sure that you understand **all** these requirements!

Ultimately, it is **your** responsibility to complete all requirements, within the prescribed **deadlines**.

The Electrical Engineering and Computer Science (EECS) Department at the University of Kansas offers four Master's degree programs. To view the degree requirements for any of the Master's of Science degrees offered select the associated discipline below.

COMPUTER SCIENCE

COMPUTER ENGINEERING

ELECTRICAL ENGINEERING
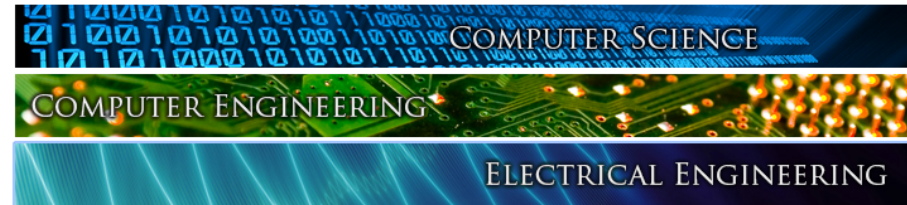
ADVISING

During their first semester, students will form a graduate committee of three EECS Graduate Faculty members, one of whom will serve as their adviser. They should select faculty members who are most closely aligned with their research interests. The Chair of the committee and at least 1 member of the committee must be a tenured or tenure track member of the EECS graduate faculty.

> Meet with professors in area of interest
> Choose an adviser
> Meet regularly with adviser to refine plan of study to meet academic and research goals

Advising holds will be released after the plan of study is approved and a signed enrollment planning form is submitted to the EECS Graduate Office.

Students should plan their schedules with the understanding that some EECS graduate courses are offered on a two-year rotation. Some classes are offered every semester, others once per year, and some advanced courses are offered once every four semesters. Check with the University Registrar for a complete listing of courses.

Explore: Steps to Graduation

PLAN OF STUDY

Every MS student is required to have a goal for their MS program that matches the sought after degree. The plan of study must be consistent with the identified degree and goals.

The plan of study outlines all course work and designates the thesis or non-thesis option.

> Work with adviser to form a committee and to decide what classes best meet your academic goals.

THESIS REQUIREMENTS

The thesis option, which prepares students for graduate work at the doctoral level or advanced engineering work in industry, is strongly recommended. Students conduct original, in-depth research on an open problem in EECS. Typically, a thesis produces results published as a conference paper or journal article. The thesis option requires:

> Coursework as defined in the plan of study
> Minimum of 6 hours of EECS 899 Master's Thesis
> Preparation of a thesis proposal of research into a specific research question to be submitted to and accepted by the student's graduate committee at least one semester before completion of the program. Link to thesis proposal page that contains its requirements.
> The execution and completion of research into a specific research question
> The documentation of the knowledge gained through an in-depth study in the M.S. thesis
> Oral defense of the thesis before the student's graduate committee

Explore: Thesis Proposal & Outline

NON-THESIS REQUIREMENTS

> Coursework as defined in the plan of study
> Minimum of 3 hours of EECS 891 Graduate Problems
> The execution and completion of a substantial project whose topic and scope is agreed to between the student and adviser. A project is a creative endeavor such as designing and implementing hardware, software system or the integration of existing knowledge.
> The documentation of the results in a final project report