MS IN ENGINEERING (CONCENTRATION IN ELECTRICAL ENGINEERING)

Home Department: Electrical and Computer Engineering (https://my.kettering.edu/academics/departments/electrical-computer-engineering)

Available: On Campus Only

Program Advisor/Contact:

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Program Overview

The Master of Science in Engineering (https://my.kettering.edu/academics/departments/graduate-programs/graduate-degrees/master-science-engineering) is a professional master's program that builds on an undergraduate engineering program by offering additional depth and greater mastery in a number of technical areas.

Program Objectives

All graduates of the Master of Science in Engineering program will:

- Deepen their knowledge and increase their mastery of technical areas that match their personal career goals.
- Be better prepared to advance in positions of technical and/or managerial leadership.
- Develop their ability to sustain a life-long career in engineering, through continuing self-directed learning and professional development activities.

The concentration in Electrical Engineering (https://www.kettering.edu/programs-and-degrees/on-campus-graduate/#ee) is a research-intensive on-campus program designed for individuals who wish to deepen their understanding of electrical engineering principles and applications and to develop their skills in independent research.

Graduate Assistantships

Financial support in the form of tuition reductions or waivers and stipends for living expenses is available on a competitive basis. Students who receive financial support may be required to serve as research or teaching assistants for up to 20 hours per week (depending on the level of financial support) during terms in which they are registered.

Program Curriculum Requirements

Completion of 40 credits as follows:

ECE-610	Modeling of Dynamic Systems	4
Select three of the following:		12
CE-612	Digital Systems Design	
CE-624	VLSI Design	
ECE-630	Advanced Digital Signal Processing	
ECE-642	Electric Machine Drives	
ECE-648	Electromagnetic Compatibility	
EE-526	Advanced Power Electronics	
EE-530	Digital Control Systems	
EE-582	Robot Dynamics and Control	
EE-691	Graduate Special Topics in EE	
EE-699	Graduate Level Independent Study in Electrical Engineering	
Any 500-600 graduate level elective courses		8
EE-695	Graduate Research in Electrical Engineering (two, 8 credit courses)	16
Completion and successful defense of a master's thesis		
Total Credit Hours		40

Undergraduate-level coursework might also be required for some students as a prerequisite for either graduate-level coursework or research, depending on the student's background and the nature of the coursework or research. If required, undergraduate-level credit cannot be used to satisfy the graduate-level credit requirements given above.

The program operates on a calendar similar to a conventional quarter system: Fall, Winter, and Spring terms are "regular" academic terms during which students normally enroll full-time, and the Summer term is optional. The nominal plan of study calls for a total of six terms of study over 21 months:

First Year	Fall	8 credits coursework
First Year	Winter	8 credits coursework
First Year	Spring	8 credits coursework
	Summer	
Second Year	Fall	8 credits coursework
Second Year	Winter	8 credits coursework
Second Year	Spring	Thesis defense and submission

Many variations of this plan are possible. In particular, students may begin the program in any term, not just Fall, and may elect to register for coursework or research during Summer. Students may not, however, register for more than eight credits in a term.