# ELECTRICAL ENGINEERING M.S.

All students must meet the Requirements for the Master's Degree

## OVERVIEW

The Electrical Engineering (EE) program at the University of Vermont (UVM) offers a program of study leading to the M.S. degree in Electrical Engineering. Areas of research expertise in electrical engineering include control systems, signal processing, electric power & energy systems, solid state physical electronics, semiconductor materials and devices, wireless communications, VLSI design & testing, and biomedical engineering.

Typically candidates have obtained the Bachelor of Science degree in Electrical Engineering prior to application but those who haven't are encouraged to apply for the program if they have extensive background in mathematics and the basic sciences. In such cases, it may be necessary for a student to complete the entrance qualifications without receiving credit toward graduate studies. The general requirements for admission by the Graduate College must be met.

## SPECIFIC REQUIREMENTS

### Requirements for Admission to Graduate Studies for the Degree of Master of Science

An accredited bachelor's degree in an appropriate field.

### Minimum Degree Requirements

Advanced courses in electrical engineering, physics, computer science, and mathematics (18 to 24 credits, at least 6 of which must be at the 6000-level) with at least 15 credits appropriately distributed in approved areas of study in the Electrical Engineering department. Thesis research (6 to 12 credits).

Students are free to pursue any M.S. degree option: thesis, project, or course-work only options. For students interested in academic research and working closely with a faculty advisor, a thesis is normally expected in the program.

In all cases, successful completion of the M.S. degree will require passing a comprehensive examination. This examination will in part be based on course work that was taken in the pursuit of the M.S. degree. Thesis option students will be tested orally at the time of their thesis proposal while project option students will be asked to write and present a report on a design or research topic of interest.

### Comprehensive Examination

M.S. Thesis Option: The student must orally present a proposal for their thesis research no later than the semester prior to the semester in which the student plans to graduate. The student's thesis committee will orally examine the student based on the student's coursework and research focus.

M.S. Project Option: Under the supervision of an EE graduate faculty member, the student must prepare and present a written proposal for their research project at least 3 months prior to graduation. The student's project committee will orally examine the student based on the student's coursework and research focus.

M.S. Coursework Option: The student must complete a written and/or oral comprehensive exam during the final semester of residence at UVM.

M.S. Coursework Option: The student must complete an oral comprehensive exam during the final semester of residence at UVM based on course work for EE graduate courses where a grade below a B+ was earned.

### Requirements for Advancement to Candidacy for the Degree of Master of Science

An accredited bachelor's degree in electrical engineering or equivalent education.