ELECTRICAL ENGINEERING M.S.

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

OVERVIEW

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. Areas of research expertise are biomedical engineering, mechatronics, power and energy systems, computer engineering, solid state physical electronics, electromagnetics, information processing, communication theory, semiconductor materials, devices, and integrated circuits (VLSI).

SPECIFIC REQUIREMENTS

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

An accredited bachelor’s degree in an appropriate field and completion of the general (aptitude) portion of the Graduate Record Examination (GRE).

Minimum Degree Requirements

Advanced courses in electrical engineering, physics, computer science, and mathematics (eighteen to twenty-four credits) with at least fifteen credits appropriately distributed in approved areas of study in the Electrical Engineering department. Thesis research (six to twelve credits).

Although a thesis is normally required in the program leading to the M.S. in Electrical Engineering, the thesis may be waived with departmental approval, in favor of additional courses which constitute a non-thesis option. In such cases, the student will be expected to have considerable professional experience, or to submit high quality technical reports as evidence of professional maturity.

In either case, successful completion of the M.S. degree will require passing a comprehensive examination. This examination will 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. Non-thesis option students will be asked to make a report, both written and oral on a design or research topic of current interest which relates to course work taken at UVM. The presentation must be understandable to engineers and scientists, not just professionals working directly on the particular topic.

Comprehensive Examination

M.S. Thesis Option: The student must orally present a proposal for their thesis research approximately 6 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. Project Option: The student must orally present a proposal for their project research approximately 6 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.

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

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