Master of Science in Electrical Engineering

The Master of Science in Electrical Engineering degree program is designed to provide support for industrial and academic research needs. This program prepares students to pursue further industrial or academic career, as a leader and/or an advanced practitioner, in various areas of Electrical Engineering and related disciplines.

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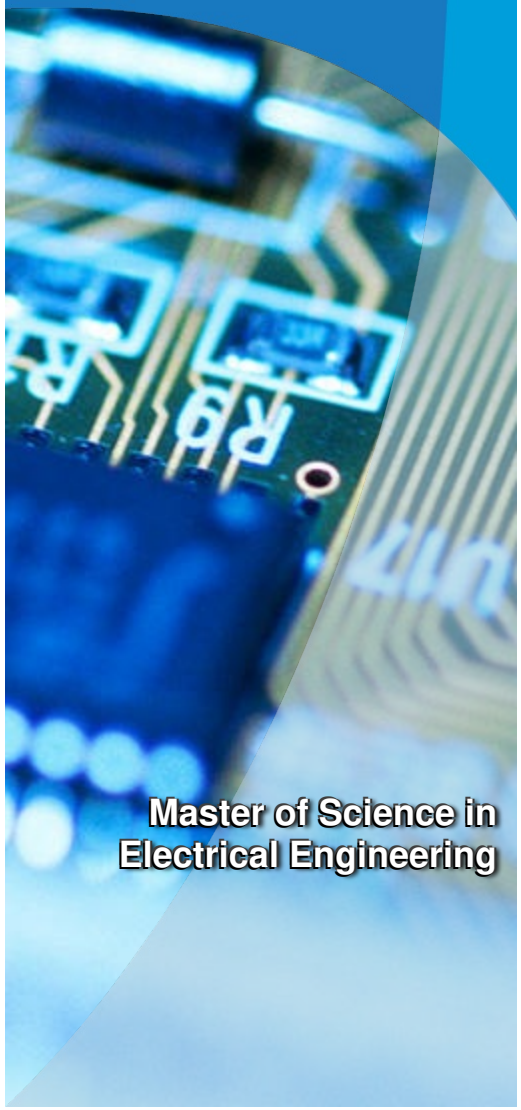
PennState Harrisburg

School of Science, Engineering, and Technology



Master of Science in Electrical Engineering

Curriculum

All graduate students in Electrical Engineering are required to adhere to the requirements of the Graduate School, as found in the Graduate Degree Programs Bulletin. The requirements of the Graduate School, however, are minimum requirements and the policies, procedures, and regulations listed below are additional and more specific for graduate students pursuing the MS in Electrical Engineering degree. Advisers will call pertinent regulations to the attention of their advisees, but it should be understood that it is the student's personal responsibility to see that all requirements are satisfied.

The MSEE program at Penn State Harrisburg is structured into two areas of concentration to fully take advantage of the specialty areas represented in the E E graduate faculty. The areas are Electronics-Electromagnetics-Optics (EEO) and Systems. The program requires 31 credits, including 24 course credits with at least 15 credits at the 500 level, 1 colloquium credit (E E 500), and 6 thesis credits (E E 600). All students are required to take a 500-level analysis course (EMCH 524A) in addition to prescribed courses in one of the two concentration areas. The prescribed courses are intended to establish the fundamentals of the technical areas. To incorporate some breadth into the program, students are required to take at least one course in the second concentration area.

Original research, usually requiring at least two semesters of work (nominal 6 credits), is expected for a thesis. The work should be an in-depth investigation intended to extend the state of knowledge in some specialty area.

The E E program has established a six-year time limit for completion of the M.S. degree. Any extension beyond six years requires the approval of the E E program Graduate Faculty.

The student must maintain a minimum grade point average (GPA) of 3.00 or better on a 4.00 scale in 500- and 400-level courses listed on his/her Plan of Study.

Penn State Harrisburg's MSEE program is distinct and independent of the MSEE program offered at the University Park campus.

Visit for complete details.

Courses Overview

Course Outline

- Students in the Electronics-Electromagnetics-Optics (EEO) concentration area are required to take
  - 6 credits from the following: E E 521, E E 531, E E 541
  - 12 credits from the following (Maximum of 6 cr. at 400-level): E E 510, E E 520, E E 521, E E 531, EE 534, EE 537, E E 538, E E 541, E E 542, E E 420 E E 421, E E 430, E E 432, E E 438, E E 441, E E 442.
- Students in Systems concentration area are required to take
  - 6 credits from the following: E E 560, E E 580, E E 588
  - 12 credits from the following (Maximum of 6 cr. at 400-level): E E 551, E E 553, E E 556, E E 560, E E 561, E E 562, E E 568, E E 580, E E 581, E E 587, E E 588, E E 453, E E 456, E E 458, E E 460, E E 480, E E 481, E E 488, MATH 430, MATH 414.

In addition, all students are required to complete:

- E MCH 524A (3.0)
- E E 500 (1.0)
- E E 600 (6.0)
- a 3.0-credit E E elective at 400- or 500-level

No more than three 400-level courses (9 credits) may be taken to satisfy the MSEE degree requirements. At least one course must be taken in a different concentration area.

Complete course listings are available on the program website.

Visit for complete details.

Program Requirements for Admission

Requirements	More Information
GPA	An undergraduate cumulative grade-point average of 3.0 or better on a 4.0 scale.
Education	An undergraduate degree in engineering or a technology-related field from an accredited university.
Supporting Materials	✓ Three letters of professional recommendation from individuals who can evaluate the applicant's potential ✓ A personal statement of technical interest, goals, and experience ✓ Statement of interest in graduate assistantship (if desired) ✓ Test scores from the Graduate Record Examination (GRE)

Admission into this program will be granted only to candidates who demonstrate high potential for success in graduate studies.

Application Deadline

This program has rolling admission, that is, no specific deadline. Note that it may take 4-6 weeks to receive transcripts and process an application.