ELECTRICAL AND COMPUTER ENGINEERING, MASTER OF SCIENCE IN ENGINEERING

The department offers a comprehensive and flexible Master of Science in Engineering (M.S.E.) degree program that includes courses from several areas of Electrical and Computer Engineering. In addition, the following specialized M.S.E. focus areas are offered:

1. Artificial Intelligence and Data Science
2. Computational and Biomorphic Systems
3. Computational Systems Biology and Bioinformatics
4. Computer & Neuromorphic Engineering
5. Control Systems
6. Language and Speech Processing
7. Image Processing and Analysis
8. Integrated Circuits and Microsystems
9. Photonics and Optoelectronics
10. Signal Processing & Machine Learning

In addition, the department offers an official Concentration in Human Language Technology (https://www.clsp.jhu.edu/human-language-technology-masters/).

More information on these research areas and our current projects can be found at https://engineering.jhu.edu/ece/research/research-areas/.

Program Requirements

A student who has completed a program of study similar to that required for the B.S. in electrical engineering degree must complete the following requirements for the M.S.E. degree:

- Every one-semester graduate (400-799) courses approved by the advisor must be satisfactorily completed. At least five of these courses must come from the full-time ECE Department (520.XXX) but cannot include Independent Study, Dissertation Research, ECE Seminar or Special Studies.
- Further depth of understanding must be demonstrated by either satisfactorily completing two additional one-semester graduate (400-799) courses approved by the advisor (one of which must come from the full-time ECE Department (520.XXX), or by writing an M.S.E. thesis acceptable to a member of our faculty, or by completing a special project acceptable to a member of our faculty and writing the corresponding report.
- A course (including independent study) is satisfactorily completed if a grade of A, B, C, or P is obtained. No more than one C grade can be counted toward the requirements and a D or F or second C grade results in probation. A second D or F or a third C grade results in termination from our program.
- Students may transfer in up to two courses from outside JHU. These courses must have been completed after the undergraduate degree was conferred, not applied to a degree elsewhere, and must be approved in advance by the department.
- Every graduate course designated Independent Study, Dissertation Research, or Special Studies counted toward the M.S.E. degree must include a written report. A copy of the report will become part of the student’s permanent file.