

ELECTRICAL & COMPUTER ENGINEERING**Program of Study**

The Electrical and Computer Engineering Department offers the Master of Science (M.S.) degrees in both Electrical Engineering and Computer Engineering, and the Doctor of Philosophy (Ph.D.) degree in Electrical and Computer Engineering. Thesis and non-thesis options are available for the M.S. degree. For a non-thesis degree, a minimum of 30 semester hours of course work is required. The thesis option requires 24 credit hours of coursework, and an additional six credits of ECE 699, which are devoted to individual study with a member of the graduate faculty. This work must culminate in the preparation of a written thesis and an oral defense of the thesis. In order to obtain a M.S. degree in Electrical or Computer Engineering, a student must maintain a minimum GPA of 3.0 for all courses satisfying the requirements of the M.S. degree. For the Ph.D. degree, a minimum of 42 credit hours of coursework beyond the B.S. degree and a minimum of nine credit hours of ECE 699 are required. A Ph.D. candidate must maintain a minimum, cumulative GPA of 3.33 (B+) for all courses satisfying the requirements of the Ph.D. degree, including any credits transferred from a previous MS degree. A more detailed description of the graduate degree program and requirements can be found at the department website (<http://www.eece.maine.edu>).

In order for a student to become a candidate for a graduate degree in Electrical Engineering or Computer Engineering, he/she must either have completed a Bachelor of Science degree in Electrical Engineering or Computer Engineering, or have otherwise demonstrated a high scholastic competency in all of the required undergraduate courses for that degree.

Financial Aid

All applicants will be automatically considered for any available teaching or research assistantships. No additional application material beyond the application for admission is normally required. For consideration for financial support, completed applications must be received by the Graduate School no later than January 15. For information about graduate student fellowships, assistantships and scholarships, contact the Graduate School or visit their website.

Research Facilities

The ECE department offices and laboratories are located in Barrows Hall and in the adjoining Engineering & Science Research Building (ESRB). The ESRB also houses the Laboratory for Surface Science and Technology (LASST), a multidisciplinary, organized research unit (<http://www.umaine.edu/lasst>). The ESRB opened its doors in July 2004, and contains state of the art research facilities, including a micofabrication cleanroom and laboratories for VLSI design and testing, microsensor research and development, MicroElectroMechanical Systems (MEMS) and high-speed communications. In addition, there are departmental laboratories devoted to research in microwave acoustics, intelligent systems and industrial automation. Details about these and other areas of research can be found at the department's website.

Students

It will be difficult to find a better student to faculty ratio for the same cost of tuition anywhere else in the United States. Making a connection with faculty is one of the most important things you can do to help your future career. During a visit to UMaine, you are encouraged to meet with and shadow one of our current graduate students while he/she attends class and other activities.

Applying

Application deadlines are January 15 for fall admission and September 15 for spring admission. Obtain application materials from the Graduate School, or apply on-line at their website, <http://www2.umaine.edu/graduate/>. Applicants are evaluated by a number of criteria, including GRE scores, undergraduate GPA, letters of recommendation and matching research interests. No one criterion determines acceptance.

Correspondence

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Graduate Faculty

Mohamad T. Musavi, Ph.D. (Michigan, 1983), Professor and Chair. Artificial Neural Networks, computer vision.

Ali Abedi, Ph.D. (University of Waterloo, 2004), Assistant Professor. Wireless communications, coding and information theory, sensor networks.

Scott Collins, Ph.D. (Brigham Young University, 1980), Cooperating Professor. Microelectrical mechanical systems (MEMS).

Mauricio Pereira da Cunha, Ph.D. (McGill University, 1994), Assistant Professor. Microwave acoustics, signal processing, sensors and applications.

Richard O. Eason, Ph.D. (Tennessee, 1988), Associate Professor. Robotics and computer vision.

Nuri W. Emanetoglu, Ph.D. (Rutgers State University, 2003), Assistant Professor, Novel Semiconductor materials and devices

Duane Hanselman, Ph.D. (Illinois, 1985), Associate Professor. Design and control of motors, control theory and design.

Donald M. Hummels, Ph.D. (Purdue, 1987), Professor. Communications, signal processing and pattern recognition.

David E. Kotecki, Ph.D. (University of California-Davis, 1988), Associate Professor. Microelectronics, electronic materials, computer modeling and simulation.

Bruce E. Segee, Ph.D. (University of New Hampshire, 1992), Associate Professor. Instrumentation, neural networks and computer interfacing.

Rosemary Smith, Ph.D. (University of Utah, 1982), Professor. Microsensors, microtechnology.

John F. Vetelino, Ph.D. (Rhode Island, 1969), Professor. Surface acoustic wave devices and applications, microsensors, sonar signal processing, solid state.

Yifeng Zhu, Ph.D. (University of Nebraska, Lincoln, 2005), Assistant Professor. Computer architecture and organization, cluster computing, distributed system systems, embedded system design.