



Education & Courses

Faculty from the [ElectroScience Laboratory](#) provide instruction in all aspects of electromagnetic theory and applications, both at the undergraduate and graduate levels. These courses provide students with a broad fundamental basis in theoretical, numerical, and applied electromagnetic skills, so that graduates are well prepared experts no matter what their career paths may require. General course areas include:

Electromagnetic Theory

Electromagnetic Field Theory I, II, and III (ECE 719, 810, 811)
Advanced Antenna Theory (ECE 815)
Scattering from Random Media and Rough Surfaces (ECE 816)
Advanced Electromagnetic Field Theory (ECE 819)

Numerical Methods

Introduction to Numerical Methods for EM (ECE 715)
Finite Elements for Electromagnetics (ECE 813)
Method of Moments in Electromagnetics (ECE 814)
Discrete Methods in Electromagnetics (ECE 894K)

Applications

Microwave Circuits (ECE 710)
Radiation from Antennas (ECE 711)
Elements of Radio Wave Propagation (ECE 713)
Radar Systems (ECE 714)
Optics with Laser Light (ECE 716)
Fiber Optics (ECE 731)
Quantum Electron Devices: Lasers (ECE 732)
Photonics Laboratory (ECE 737)
Optical Effects in Materials and Devices (ECE 833)

Undergraduate

Electromagnetics I & II (ECE 311, 312)
Electromagnetics Laboratory (ECE 517)
Introduction to Electromagnetic Compatibility (ECE 614)

Application Procedure

The ElectroScience Laboratory is a world leader in electromagnetics education and research, and offers a graduate program for top students to enhance their electromagnetics related skills. For more information on the application procedure, follow the prospective students link at:

www.electroscience.osu.edu

Please contact us when you apply to inform us of your interest.

Financial support is provided for most graduate students, typically including full tuition as well as a monthly stipend. Types of financial support include fellowships and graduate research associate (GRA) positions, both of which allow students to work on projects under the supervision of ESL senior researchers and faculty. Decisions on fellowship and GRA offers are typically made in the Spring; students are encouraged to submit their applications by November 30th (international) or January 15th (domestic) to receive full consideration for possible support.