Online ECE MS Programs

Master's Degrees Geared to Working Professionals

Students in the University of Arizona's online Master of Science in Electrical and Computer Engineering program develop skills to lead the design and implementation of advanced technological solutions for a wide variety of organizations.

Same Degree, 100% Online

Learn from the same professors, enjoy the same resources, and earn a degree from the University of Arizona.

9 out of 10
students would recommend Arizona Online to others.

- Online Student Experience Survey, 2022

#1
in alumni earnings potential among Arizona's public universities.

- PayScale, 2022

Best Value College

- The Princeton Review and Forbes

ece.engineering.arizona.edu

Master of Science in Electrical and Computer Engineering

Specialize in areas such as:

- Cyber Security; High-Performance Computing; Network Security
- Machine Learning; Signal and Image Processing
- Quantum Sensing and Communications
- Software-Defined Radio; Optical Communication Systems

Take several non-ECE courses to add breadth to the study plan, such as:

- Law for Engineers; Principles of Entrepreneurship
- The Systems Engineering Process; Decision Making Under Uncertainty
- Computational Photography; Introduction to Infrared Systems
- Sports Analytics; Biomedical Informatics

Master of Science in Cybersecurity

- Jointly administered with top-ranked Department of Management and Information Sciences
- Ideal for engineers and IT professionals in the workforce
- Draws from multiple disciplines

See the **Cybersecurity Online MS** website for details.

Questions?

Contact: **gradadvisor@ece.arizona.edu**.

ece.engineering.arizona.edu

Online ECE Graduate Courses

See the **UA Course Catalog** for full course descriptions.

Course	Title	Semester
ECE 501B	Advanced Linear Systems Theory	Fall
ECE 503	Probability and Random Processes	Fall
ECE 503A	Mathematical Methods for Optics & Photonics	Spring
ECE 509	Cyber Security - Concept, Theory, Practice	Fall
ECE 523	Machine Learning and Data Analytics	Spring
ECE 524	Fundamentals of Cloud Security	Spring
ECE 527	Holography and Diffractive Optics	Fall
ECE 529	Digital Signal Processing	Fall
ECE 530	Optical Communication Systems	Fall
ECE 531	Software-Defined Radio	Spring
ECE 532	Digital Image Analysis	TBD
ECE 533	Digital Image Processing	TBD
ECE 538	Radar Signal Processing	Fall
ECE 539A	From Photonics Innovation to the Marketplace	Spring
ECE 540	Quantum Sensing and Quantum Machine Learning	Fall
ECE 541A	Automatic Control	Fall
ECE 542	Digital Control Systems	Spring
ECE 543	Quantum Communications and Quantum Networks	Spring
ECE 546	Semiconductor Processing	Fall
ECE 562	Computer Architecture and Design	Spring
ECE 566	Knowledge-System Engineering	TBD
ECE 569	High Performance Computing	Spring
ECE 571	Fundamentals of Information and Network Security	Spring
ECE 574A	Computer-Aided Logic Design	Fall
ECE 578	Fundamentals of Computer Networks	Fall
ECE 579	Principles of Artificial Intelligence	TBD
ECE 584	Antenna Theory and Design	Spring
ECE 586	Microwave Engineering I: Passive Circuit Design	TBD
ECE 588	Microwave Engineering II: Active Circuit Design	TBD
ECE 636	Information Theory	TBD
ECE 639	Detection and Estimation in Engineering Systems	TBD
ECE 696B	Advanced Topics in Electrical Engineering	TBD

Selected Non-ECE Online Graduate Courses

Take several non-ECE courses to add breadth to the study plan.

See the **UA Course Catalog** for full course descriptions.

Course	Title	Semester
AME 500A	Advanced Engineering Analysis	Fall
AME 500B	Advanced Engineering Analysis	Spring
AME 546	Fuel Cell Fundamentals and Design	Fall
AME 555	Introduction to System Identification Methods	Spring
AME 556	Nonlinear and Optimal Control	Spring
AME 558	Introduction to Advanced Control Theory	Fall
AME 561	Finite Element Methods	Spring
AME 587	Design of Mechatronic Systems	Spring
BME 577	Introduction to Biomedical Informatics	Fall
ENTR 506	Principles of Entrepreneurship	Fall
INFO 523	Data Mining and Discovery	Fall, Spring
INFO 526	Data Analysis and Visualization	Fall, Spring
INFO 557	Neural Networks	Fall
OPTI 511R	Optical Physics and Lasers	Spring
OPTI 516	Modern Astronomical Optics	Spring
OPTI 536	Introduction to Image Science	Spring
OPTI 584	Polarized Light and Polarimetry	Spring
OPTI 597B	Technical Writing and Communication	Fall
OPTI 600C	Computational Photography	Fall
OPTI 613	Introduction to Infrared Systems	Spring
OPTI 636	Noise in Imaging Systems	Fall
SFWE 501	Software Assurance and Security	Spring
SIE 514	Law for Engineers/Scientists	Spring
SIE 515	Technical Sales and Marketing	Fall, Spring
SIE 522	Engineering Decision Making Under Uncertainty	Fall
SIE 530	Engineering Statistics	Fall
SIE 531	Simulation Modeling and Analysis	Fall, Spring
SIE 532	Sports Analytics	Fall, Summer
SIE 533	Fundamentals of Data Science for Engineers	Fall
SIE 540	Survey of Optimization Methods	Spring
SIE 554A	The Systems Engineering Process	Fall
SIE 557	Project Management	Fall
SIE 564	Cost Estimation	Spring
SIE 565	Supply Chain Management	Spring
SIE 567	Financial Modeling for Innovation	Fall