

The George Washington University (GW) has a diverse student body -- more than 10,000 graduate students. GW's main campus is located in Foggy Bottom, a historic neighborhood of Washington DC --just a few blocks from the White House.

In addition to the extensive resources offered by the university, our students benefit from our professional associations with business, industry, government, and nonprofit organizations.

Through GW, students gain access to facilities at the Library of Congress, the Smithsonian Institution, the National Institute of Health, the World Bank, and the National Aeronautics and Space Administration to name a few.

GW offers more than an academic degree. We provide the experience and connections you need to build on your education and accomplish your career objectives.

The Department of Electrical and Computer Engineering (ECE) is located in the Washington DC metropolitan area, with one of the largest concentrations of high-technology enterprises in the country. This allows our students to experience innovations in technology application and career exploration. Students access new advances in technology through government agencies, private industry, and defense centers. Additionally, they may help agencies and corporations work on technology-based policy, and project management.

We invite you to explore our programs at www.ece.gwu.edu

Contact Numbers

Department of Electrical and Computer Engineering (ECE)

Dr. Can E. Korman
Department Chair

phone: 202.994.6083

fax: 202.994.0227

e-mail: korman@gwu.edu

web site: www.ece.gwu.edu

ECE Admissions

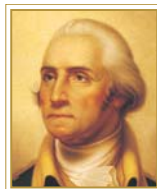
Tamela D. Blalock
Graduate Records Coordinator

phone: 202.994.3096

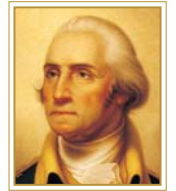
fax: 202.994.4522

e-mail: ecegrad@gwu.edu

web site: www.ece.gwu.edu



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Department of Electrical and Computer Engineering

School of Engineering and Applied Science

Graduate PROGRAMS

LEADING TO DEGREES OF **Master of Science**

AND **Doctor of Science** IN

ELECTRICAL ENGINEERING AND COMPUTER ENGINEERING

AND **Master of Science** IN

TELECOMMUNICATIONS AND COMPUTERS

801 22nd Street NW
Washington DC 20052

phone: 202.994.6083

fax: 202.994.0227

www.ece.gwu.edu

areas of focus

■ Biomedical Engineering

ECE 203* Stochastic Processes in Engineering
ECE 208 Digital Image Processing
ECE 210* Applied Electromagnetics
ECE 211* Signals and Transforms in Engineering
ECE 220 Pattern Recognition
ECE 252 Digital Signal Processing Techniques
ECE 280 Anatomy and Physiology for Engineers
ECE 282 Medical Measurements
ECE 283 Medical Instrumentation Design
ECE 284 Biomedical Signal Analysis
ECE 285 Medical Ultrasound
ECE 286 Clinical Medicine for Engineers
ECE 287 Rehabilitation Medical Engineering
ECE 382 Medical Signals and Systems
ECE 383 Bioelectric Phenomena and Bioelectromagnetics
ECE 384 Medical Imaging
ECE 385 Special Topics in Biomedical Engineering

■ Communications and Networks

ECE 203* Stochastic Processes in Engineering
ECE 211* Signals and Transforms in Engineering
ECE 219* Computational Techniques in Electrical Engineering
ECE 223 Photonic Communication Devices
ECE 227 Data and Computer Communications
ECE 241 Information Theory
ECE 242 Coding Theory
ECE 243 Communication Theory I
ECE 244 Communication Theory II
ECE 246 Digital Communications
ECE 247 Communications Systems
ECE 248† Introduction to Computer Networks
ECE 249 Network Performance Analysis
ECE 250 Telecommunications Network Security
ECE 251 Telecommunications Switching Systems
ECE 253 Mobile Communications Systems
ECE 255 Optical Communication Networks
ECE 257 Multi-user Communications
ECE 259 Wireless Networks
ECE 260 Information Transmission Systems
ECE 277 Satellite Communications Systems
ECE 289 Telecommunications Security Protocols
ECE 290 Telecommunications Networks
ECE 295 Electronic Warfare
ECE 346 Telecommunications Protocols
ECE 347 Telecommunications Software Engineering
ECE 348 The Internet: Design and Implementation

■ Electromagnetics

ECE 210* Applied Electromagnetics
ECE 211* Signals and Transforms in Engineering
ECE 219* Computational Techniques in Electrical Engineering
ECE 221 Physical Electronics
ECE 223 Photonic Communication Devices
ECE 225* Device Electronics
ECE 226 Fiber and Integrated Optics
ECE 232 Applied Magnetism
ECE 233 Introduction to Microwave Engineering
ECE 234 Wave Propagation
ECE 235 Antennas
ECE 236 Electromagnetic Radiation and Scattering
ECE 237 Waves and Random Media
ECE 238 Remote Sensing
ECE 239 Numerical Electromagnetics
ECE 254 Radar Systems
ECE 258 Propagation and Antennas in Wireless Communications
ECE 291 Physics of Magnetism
ECE 292 Magnetic Hysteresis
ECE 321 Mathematical Techniques for Electromagnetics
ECE 322 Waveguide Diffraction
ECE 335 Signal Processing Array Antennas

■ Signal Processing, Systems and Controls

ECE 202 Linear Systems Theory
ECE 203* Stochastic Processes in Engineering
ECE 208 Digital Image Processing
ECE 211* Signals and Transforms in Engineering
ECE 219* Computational Techniques in Electrical Engineering
ECE 245 Statistical Signal Estimation
ECE 252 Digital Signal Processing Techniques
ECE 256 Wavelets and Their Applications
ECE 271 Linear Multivariable Control
ECE 272 Computer Control Systems
ECE 273 System Optimization
ECE 274 Nonlinear Systems
ECE 275 Adaptive Filtering
ECE 276 Design of Robotic Systems
ECE 279 Stochastic Control Systems
ECE 294 DSP Embedded Systems
ECE 317 VLSI for DSP Systems
ECE 335 Signal Processing Array Antennas
ECE 372 Control of Large Systems

■ Computer Architecture and Networking

ECE 201* Microcomputer Systems Architecture
ECE 203* Stochastic Processes in Engineering
ECE 204 Embedded Systems
ECE 206 High-Performance Processors
ECE 227 Data and Computer Communications
ECE 230 Microarchitectures for Multimedia Processing
ECE 248* Introduction to Computer Networks
ECE 249 Network Performance Analysis
ECE 251 Telecommunication Switching Systems
ECE 260 Information Transmission Systems
ECE 290 Telecommunication Networks
ECE 294 DSP Embedded Systems
ECE 306 Mobile Networked Computing
ECE 318 Advanced Topics in Computer Architecture

■ Microelectronics and VLSI Systems

ECE 201* Computer Systems Architecture
ECE 213 Modeling of VLSI Circuits
ECE 214 High Level VLSI Design Methodology
ECE 215 Introduction to MEMS
ECE 216 Mixed Signals Design
ECE 217 Neural Networks
ECE 218 Analog VLSI Circuit Design
ECE 219* Computational Techniques in Electrical Engineering
ECE 221 Physical Electronics
ECE 224 Electronics of Lasers
ECE 225* Device Electronics
ECE 231 Application of MEMS
ECE 317 VLSI for DSP Systems

■ Multimedia Processing

ECE 201* Microcomputer Systems Architecture
ECE 203* Stochastic Processes in Engineering
ECE 205 Fractals and Their Applications
ECE 208 Digital Image Processing
ECE 209 Compression Techniques
ECE 211* Signals and Transforms in Engineering
ECE 220 Pattern Recognition
ECE 230 Microarchitectures for Multimedia Processing
ECE 281 Speech and Audio Processing by Computer
ECE 293 Image Synthesis
ECE 294 DSP Embedded Systems
ECE 320 Computer Vision

* Core Courses