

# THE CITADEL GRADUATE COLLEGE

171 Moultrie St. Charleston, SC 29409  
(843)953-5089 • [citadel.edu/graduatecollege](http://citadel.edu/graduatecollege)

The Citadel's evening graduate program serves the Lowcountry by offering master's degrees and graduate certificates scheduled around the student's profession, family and lifestyle.

Program questions should be directed to:

*Dr. Robert Barsanti, Program Director*

*Electrical Engineering*

*(843)953-7593*

*[barsantir1@citadel.edu](mailto:barsantir1@citadel.edu)*

## MASTER OF SCIENCE IN ELECTRICAL ENGINEERING



# THE CITADEL

SCHOOL OF ENGINEERING

### Your Graduate Experience

The ever changing engineering workforce has led to a competitive job market with companies looking to hire people who possess a technical and professional skillset.

- The Citadel is ranked by U.S. News & World Report (2012 - 2016) as the No. 1 Best Public University in the South offering up to a master's degree.
- Within the School of Engineering, faculty are primarily focused on teaching in their discipline.
- A faculty adviser assigned to you will create a student experience around your career goals, which allows you to obtain the exact knowledge and skills needed to move your career forward in a highly competitive job market.

### Student Learning Outcomes

Demonstrate breadth of advanced knowledge in complimentary areas of electrical engineering that promotes an awareness of and skill in interdisciplinary problem solving.

Demonstrate a depth of knowledge in a chosen focus area of electrical engineering that allows graduates to apply innovative techniques to solve problems.

Demonstrate knowledge in methods of advanced analysis appropriate for professional use when solving problems.

Demonstrate knowledge of contemporary issues in their chosen focus area.

Demonstrate the professional skills relevant to graduate level work to include the ability to formulate problems, synthesize and integrate information, work collaboratively, and to communicate effectively.

Demonstrate preparation for advancement in successful careers in industry or continued graduate work and an ethic for lifelong learning.

### Why The Citadel is Right for You

#### Students are our Focus

We believe that education, development, empowerment, and welfare of our students are the primary focus of our efforts.

#### Electrical Engineers as Principled Leaders

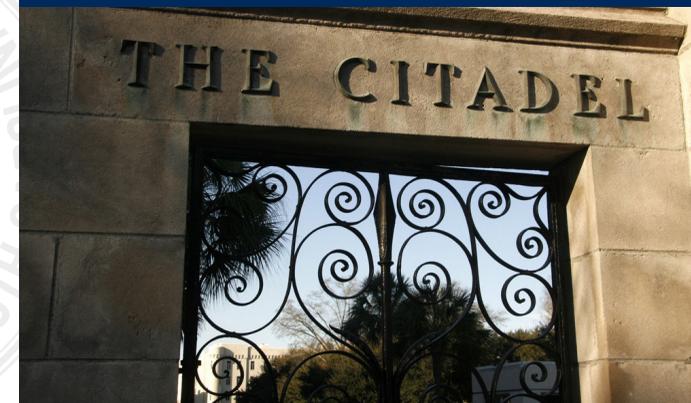
We believe the engineering profession requires the highest professional and ethical standards, which we seek to model, teach and prepare our graduates to embrace.

#### Collaborative Teaching and Learning Environment

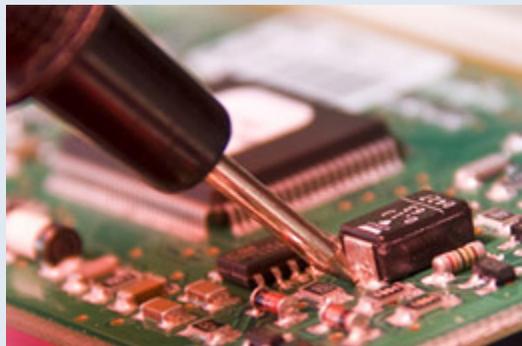
We believe a collaborative collegial environment among our faculty, staff and students is critical in sustaining advancement in educational excellence.

#### Growth through Assessment

We believe in data-driven feedback and improvement will lead us to sustained advancement in cutting edge curriculum.



# MASTER OF SCIENCE IN ELECTRICAL ENGINEERING CURRICULUM



## Mission Statement

The Master of Science in Electrical Engineering program is designed for students seeking advanced engineering techniques and professional development skills in the field of electrical engineering. Our goal is to provide both recent graduates and professionals in the engineering community with a rigorous curriculum containing theoretical and practical engineering concepts for building additional expertise in a high paced technological society.

## Program Overview

The Citadel MSEE will require 30 credit hours where 18 credit hours will be technical while 12 credit hours can be non-technical (business administration, leadership, program management).

Students have the option to pursue a graduate certificate Computer Engineering in conjunction with their MSEE degree.

**Course Availability:** The courses will be offered based on student preferences and overall demand indicated in your plan of study to be submitted after acceptance. Students should be aware course offerings will be based on minimum class size enrollment. The Electrical and Computer Engineering Department will continually monitor student interest to expedite completion of your program of study.

## Technical Courses

### Computer Engineering Core Courses

ELEC 675	Computer Architecture
ELEC 645	Data Communications Networks
ELEC 655	Digital Communications
ELEC 635	Adaptive Signal Processing

### Electrical Engineering Elective Courses

ELEC 605	Advanced Power Systems
ELEC 615	Spectral Analysis
ELEC 625	RF Systems
ELEC 665	Fundamentals of Advanced Energy Conversions

### Electrical Engineering Elective Courses

Choose from more than 20 EE courses in field such as Structural Engineering, Geotechnical Engineering, Transportation Engineering.

### Mechanical Engineering Elective Courses

Choose from more than 20 ME courses in field such as Aeronautical Engineering, Power and Energy, and Mechatronics.

## Non-Technical Electives

### Engineering Leadership and Program Management:

PMGT 650	Overview of Tech Project Management
PMGT 651	Technical Project Planning & Scheduling
PMGT 652	Applications in Quality Management
PMGT 653	Tech Project Support & Operations
PMGT 661	The Legal and Contractual Aspects of Program Management
PMGT 671	Project Manager Leadership Development
PMGT 672	Applied Leadership Concepts

### Business Administration:

BADM 604	Foundations of Economics
BADM 609	Foundation of Management and Organization
BADM 713	Communication for Leadership
BADM 716	Legal and Ethical Environment for Decision Makers
BADM 722	Leadership in Organizations

### Leadership

LDRS 711	Leading Change: Organization Development and Transformation
LDRS 712	Leading Teams: Coaching, Culture, Diversity, and Globalization
LDRS 713	Leadership Self-Appraisal, Development and Critical Thinking
LDRS 714	Strategic Leadership, Vision, Mission and Contemporary Issues

## Why study Electrical Engineering?

Electrical engineers design the devices that define generations: televisions, computers, cell phones and robotics.

## Admission Requirements

Applicants will be admitted to the Master of Science in Electrical Engineering (MSEE) degree program on the basis of professional and scholastic achievement, along with their aptitude for graduate study. Other qualities appropriate to graduate study are also considered. Anyone holding a bachelor's degree from an ABET accredited college or university is eligible for consideration. Other technical bachelor's degrees will be considered on a case-by-case basis.

### For degree seeking students:

1. Completion of the online graduate application along with the non-refundable application fee.
2. Submission of an official transcript of the baccalaureate degree from an ABET accredited engineering program or approved alternative.
3. Submission of official copy of Graduate Record Examination (GRE) score. Admission test must have been taken within the last five years. The GRE requirement can be waived if applicant has a previously earned master's degree.
4. Submission of two letters of recommendation.

### For non-degree seeking students:

1. Completion of the online graduate application along with the non-refundable application fee.
2. Submission of an official transcript of the baccalaureate degree from an ABET accredited engineering program or approved alternative.