Electrical Engineering
B.S.E.E.

Degree Requirements: 130 Credit Hours

See Core Curriculum for required courses in Area A1 through Area E.

<table>
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<tr>
<th>Credit Hours</th>
<th>General Requirements (Core Areas A-E)</th>
<th>Area F - Courses Appropriate to Major</th>
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<td>42</td>
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<td>CHEM 1310 Comprehensive General Chemistry</td>
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<td>ENGR 1731 Computing for Engineers</td>
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<td>MATH 2243 Calculus III</td>
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<td>PHYS 2212K Principles of Physics II</td>
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Specific Requirements

- Carryover from Area A2 1
- Carryover from Area D 1
- ENGR 2341 Introduction to Signal Processing with Lab
- MATH 3230 Ordinary Differential Equations
- WRIT 2130 Technical Communication

Major Requirements

- EENG 3230 Electromagnetic Fields
- EENG 3241 Electric Machines w/Lab
- EENG 3337 Power Systems Fundamentals
- EENG 3345 Circuit Analysis II with Lab
- EENG 3340 Microcontrollers with Lab
- EENG 3341 Microelectronics with Lab
- EENG 3420 Linear Systems
- EENG 3421 Advanced Engineering Analysis
- EENG 4620 Senior Project I
- EENG 4621 Senior Project II
- EENG 5431 Control Systems with Lab
- EENG 5540 Communication Systems with Lab
- ENGR 2323 Digital Design Lab
- ENGR 2332 Logic Circuit Design
- ENGR 2334 Circuit Analysis I

Select at least 6 credit hours from the following Electrical Engineering courses:

- EENG 4890 Directed Study in Electrical and Computer Engineering
- EENG 5090 Selected Topics in Electrical and Computer Engineering
- EENG 5234 Nuclear Power System Fundamentals
- EENG 5235 Converters Control Techniques
- EENG 5242 Power Systems Protection with Lab
- EENG 5243 Power Electronics with Lab
- EENG 5244 Smart Grids Technology Fundamentals with Lab
- EENG 5330 Network Science
- EENG 5341 Robotic Systems Design with Lab
- EENG 5342 Computer Systems Design with Lab
- EENG 5432 Programmable Logic Controllers with Lab

EENG 5433 Machine Learning and Adaptive Control
EENG 5434 Engineering Optimization Methods
EENG 5532 Wireless Communications
EENG 5533 Optical Fiber Communications
EENG 5535 Electronic Warfare
EENG 5538 Cybersecurity for Networked Electrical and Electronics Systems
EENG 5541 Digital Communications with Lab
EENG 5543 Antennas and Wireless Propagation with Lab
EENG 5891 Special Problems in Electrical and Computer Engineering

Free Elective

Select 3 credit hours of Free Electives

Total Credit Hours 130

1. While Calculus I (MATH 1441) is 4 credit hours, only 3 credit hours will count toward fulfilling Area A2. The remaining credit hour will be applied toward Specific Requirements.
2. While Calculus II (MATH 2242) is 4 credit hours, only 3 credit hours will count toward fulfilling Area D. The remaining credit hour will be applied toward Specific Requirements.
3. The listed courses are recommended in Area D

Other Program Requirements

- At least 33 credit hours of approved upper division Engineering credits must be earned at Georgia Southern.
- A grade of “C” or better is required for all ENGR and EENG courses and their corresponding co-requisites and pre-requisites.

Honors in Electrical Engineering

To graduate with Honors in Electrical Engineering a student must:

- Be admitted to the University Honors Program
- Complete a capstone project in Senior Project I (EENG 4620) and Senior Project II (EENG 4621)
- Maintain a 3.3 institution grade point average, including a 3.5 minimum GPA in all major courses applied towards graduation

Accelerated Bachelor’s to Master’s (ABM) Degree in Electrical Engineering:

Admission Requirements

Regular

For regular admission to the Accelerated Bachelor’s to the Master’s of Science in Electrical Engineering (ABM-MSEE) degree program, the applicant must have:

1. Current GS undergraduate student majoring in Electrical Engineering (EE).
2. Completed at least 25 credit hours of undergraduate coursework in EE discipline including MATH 1441, MATH 2242, PHYS 2211K, PHYS 2212K, ENGR 1731, ENGR 1732, and ENGR 2332.
3. A 3.0 (4.0 scale) cumulative grade point average or higher on courses in undergraduate work.
4. Students must maintain an Institutional (Georgia Southern) GPA of 2.75 or higher.
Provisional

A student may be granted provisional admission based upon the recommendation of the Master of Science in Electrical Engineering Graduate Coordinator or department chair.

ABM Degree Requirements: (Thesis and Non-Thesis)

• A minimum of 50% of courses for the Master of Science in Electrical Engineering degree must be taken at or above the 6000 level.
• A student may use up to 9 credit hours of graduate-level courses offered within a single degree program in meeting the requirements of both a bachelor’s degree and a master’s degree.
• An undergraduate student enrolled in graduate classes is limited to 6 credit hours of graduate coursework per semester.

Advisement

Statesboro: CoEC Student Services Center, IT Building 1208, PO Box 7996, 912-478-4877