Electrical Engineering
B.S.E.E.

Degree Requirements: 132 Credit Hours
See Core Curriculum for required courses in Area A1 through Area E.

<table>
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<tr>
<th>Area</th>
<th>Credit Hours</th>
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<tr>
<td>Area A2 - Quantitative Skills</td>
<td>3</td>
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<td>Area B - Global Engagement</td>
<td>4</td>
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<td>Area C - Humanities, Fine Arts, and Ethics</td>
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<td>Area D - Natural Sciences, Mathematics, and Technology</td>
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<td>Area E - Social Sciences</td>
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<td>Area F - Courses Appropriate to Major</td>
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<td>Health and Physical Education Activities</td>
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<td>Specific Requirements</td>
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<td>Major Requirements</td>
<td>48</td>
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<tr>
<td>Total Credit Hours</td>
<td>132</td>
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Area A1 - Communication Skills (6 Credit Hours)
Select 6 credit hours from Area A1 of the Core Curriculum

Area A2 - Quantitative Skills (3 Credit Hours)
MATH 1441 Calculus I

Area B - Global Engagement (4 Credit Hours)
Select 4 credit hours from Area B of the Core Curriculum

Area C - Humanities, Fine Arts, and Ethics (6 Credit Hours)
Select 6 credit hours from Area C of the Core Curriculum

Area D - Natural Sciences, Mathematics, and Technology (11 Credit Hours)
MATH 2242 Calculus II
PHYS 2211 Principles of Physics I
PHYS 1113 Physics Lab I

Environmental Sciences with Lab

Area E - Social Sciences (12 Credit Hours)
Select 12 credit hours from Area E of the Core Curriculum

Area F - Courses Appropriate to Major (18 Credit Hours)
CHEM 1147 Comprehensive General Chemistry
ENGR 1731 Computing for Engineers
ENGR 1732 Program Design for Engineers
MATH 2243 Calculus III
PHYS 1114 Physics Lab II
PHYS 2212 Principles of Physics II

Health and Physical Education Activities (4 Credit Hours)
HLTH 1520 Healthful Living
Physical Education Activities

Orientation (2 Credit Hours)
FYE 1220 First-Year Seminar

Specific Requirements (15 Credit Hours)
Carryover from Area A2
Carryover from Area D
ENGR 2231 Engineering Mechanics I
or ENGR 3431 Thermodynamics
ENGR 2341 Introduction to Signal Processing
MATH 3230 Ordinary Differential Equations
WRIT 2130 Technical Communication

Major Requirements (48 Credit Hours)
EENG 3230 Electromagnetic Fields
EENG 3241 Electric Machines
EENG 3335 Circuit Analysis II
EENG 3340 Microcontrollers
EENG 3341 Microelectronics w/lab
EENG 3420 Linear Systems
EENG 3421 Advanced Engineering Analysis
EENG 4620 Senior Project I
EENG 4621 Senior Project II
EENG 5431 Control Systems
EENG 5540 Communication Systems
ENGR 2323 Digital Design Lab
ENGR 2332 Introduction to Computer Engineering
ENGR 2334 Circuit Analysis
ENGR 3310 Circuit Analysis Lab

Select at least 6 credit hours from the following Electrical Engineering courses:
EENG 4890 Directed Study in Electrical Engineering
EENG 5090 Selected Topics in Electrical Engineering
EENG 5242 Power Systems
EENG 5243 Power Electronics
EENG 5341 Robotic Systems Design
EENG 5342 Computer Systems Design
EENG 5343 Programmable Logic Controllers
EENG 5541 Digital Communications
EENG 5532 Wireless Communications
EENG 5533 Optical Fiber Communications
EENG 5535 Smart Antennas
EENG 5543 Antennas
EENG 5891 Special Problems in Electrical Engineering

Free Elective (3 Credit Hours)
Select 3 credit hours of Free Electives

Total Credit Hours 132

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 on all the prerequisites for ENGR and EENG courses.

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 EENG 4610H and EENG 4621H
- Maintain a 3.3 institution grade point average, including a 3.5 minimum GPA in all major courses applied towards graduation

Advisement
CEIT Office of Student Services, Room 1208, Allen E. Paulson College of Engineering and Information Technology, Telephone: (912) 478-4877.