Electrical Engineering
B.S.E.E.

Degree Requirements: 132 Credit Hours

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

Credit Hours

Area A1 - Communication Skills
Select 6 credit hours from Area A1 of the Core Curriculum 6

Area A2 - Quantitative Skills
MATH 1441 Calculus I 3

Area B - Global Engagement
Select 4 credit hours from Area B of the Core Curriculum 4

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

Area D - Natural Sciences, Mathematics, and Technology
PHYS 2211 Principles of Physics I 3 4
Environmental Sciences with Lab 3 4
MATH 2242 Calculus II 2,3 3

Area E - Social Sciences
Select 12 credit hours from Area E of the Core Curriculum 12

Area F - Courses Appropriate to Major
CHEM 1147 Comprehensive General Chemistry 4
ENGR 1731 Computing for Engineers 3
ENGR 1732 Program Design for Engineers 3
MATH 2243 Calculus III 4
PHYS 2212 Principles of Physics II 4

Health and Physical Education Activities
HLTH 1520 Healthful Living 2
Physical Education Activities 2

Orientation
FYE 1220 First-Year Seminar 2

Specific Requirements
Carryover from Area A2 1
Carryover from Area D 1

EENG 3337 Power Systems Fundamentals 3
ENGR 2341 Introduction to Signal Processing 4
MATH 3230 Ordinary Differential Equations 3
WRIT 2130 Technical Communication 3

Major Requirements
EENG 3230 Electromagnetic Fields 3
ENGR 3241 Electric Machines 4
EENG 3335 Circuit Analysis II w/Lab 3
EENG 3340 Microcontrollers 4
EENG 3341 Microelectronics w/lab 4
EENG 3420 Linear Systems 2
EENG 3421 Advanced Engineering Analysis 2
ENGR 4620 Senior Project I 2
ENGR 4621 Senior Project II 2
EENG 5431 Control Systems 3
EENG 5540 Communication Systems 4
ENGR 2323 Digital Design Lab 2
ENGR 2332 Introduction to Computer Engineering 3
ENGR 2334 Circuit Analysis 3
ENGR 3310 Circuit Analysis Lab 1

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 Protection
EENG 5243 Power Electronics
EENG 5341 Robotic Systems Design
EENG 5342 Computer Systems Design
EENG 5432 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
Select 3 credit hours of Free Electives 3

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.

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 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.