Georgia Southern University

Bachelor of Science in Electrical Engineering
Effective Spring 2018

4-Year Program Curriculum
Total Credit Hours 130

NAME: DATE: / / ID:

Legends: © = Co-requisite, ® = Concurrent or before, Subs = Substitution, Ar = Area, Cr = Credit, Sem = Semester, Gr = Grade
- At least **30** semester hours of approved upper division of Electrical Engineering credits must be earned at GSU
- Minimum grade of **"C"** is required in all Engineering, Math, and Science courses including pre-requisites
- Completion of all EE degree requirement (130 Hours) and a minimum of 2.0 GPA are required for graduation

FALL

1st Year		Prerequisites	Ar	Cr	Sem	Gr
MATH 1441	Calculus I w/ Lab	MATH 1113	A	4		
CHEM 1147	Comprehen. General Chemistry		F	4		
ENGR 1731	Computing for Engineers	MATH 1441®	F	3		
ENGL 1101	Composition I		A	3		
FYE 1220	First Year Seminar		U	2		
				16		

2nd Year		Prerequisites	Ar	Cr	Sem	Gr
MATH 2243	Calculus III w/ Lab	MATH 2242	F	4		
PHYS 2212K	Principles of Physics II	PHYS 2211K	F	4		
ENGR 2323	Digital Design Lab	ENGR 1732 & ENGR 2332		2		
WRIT 2130	*Technical Communication	ENGL 1102		3		
	Global Engagment Elective	☞ Note 1	B	3		
				16		

* Preferably completed before junior year

3rd Year		Prerequisite	Ar	Cr	Sem	Gr
EENG 3230	Electromagnetic Fields	MATH 2243 & ENGR 2334®		3		
EENG 3345	Circuit Analysis II w/ Lab	ENGR 2334		4		
EENG 3421	Advanced Engineering Analysis	ENGR 2334 & MATH 2243		2		
KINS 1525	Concepts of Health & Physical Activity		U	2		
	SACS Free Elective	☞ Note 2		3		
POLS 1101	American Government		E	3		
				17		

4th Year		Prerequisites	Ar	Cr	Sem	Gr
EENG 4620	Senior Project I	EENG 3340, 3341® & 5431®		2		
EENG 5431	Control Systems w/ Lab	EENG 3420		3		
EENG 5540	Communication Systems w/Lab	EENG 3420®, EENG 3421		4		
	EE Elective			3		
	Humanities/Fine Arts Elective I	☞ Note 4	C	3		
				15		

SPRING

1st Year		Prerequisites	Ar	Cr	Sem	Gr
MATH 2242	Calculus II w/ Lab	MATH 1441	D	4		
PHYS 2211K	Principles of Physics I	MATH 1441©	D	4		
ENGR 1732	Program Design for Engineers	ENGR 1731	F	3		
ENGR 2332	Intro to Computer Engineering	ENGR 1731		3		
ENGL 1102	Composition II	ENGL 1101	A	3		
				17		

2nd Year		Prerequisites	Ar	Cr	Sem	Gr
MATH 3230	Ordinary Differential Equations	MATH 2242	F	3		
ENGR 2334	Circuit Analysis I	ENGR 2341®,PHYS 2212K, MATH 3230®		3		
ENGR 2341	Intro to Signal Processing w/ Lab	ENGR 1731 & MATH 2242		4		
EENG 3340	**Microcontrollers w/ Lab	ENGR 2323		4		
HIST 2110	US-A Comprehensive Survey		E	3		
CORE 2000	CORE Capstone Course		B	1		
				18		

** Must be completed before taking EENG 4620

3rd Year		Prerequisites	Ar	Cr	Sem	Gr
EENG 3241	Electric Machines w/ Lab	EENG 3230 & EENG (3335® or 3345)		4		
EENG 3337	Power Systems Fundamentals	EENG 3241®		3		
EENG 3341	Microelectronics w/ Lab	EENG 3345® or ENGR 3335		4		
EENG 3420	Linear Systems	MATH 3230 & EENG (3345 or 3335)		2		
	World History Elective	☞ Note 3	B	3		
				16		

4th Year		Prerequisites	Ar	Cr	Sem	Gr
EENG 4621	Senior Project II	EENG 4620		2		
	EE Elective			3		
	Social Science	☞ Note 5	E	3		
	Environmental Sci w/ Lab	☞ Note 6	D	4		
	Humanities/Fine Arts Elective II	☞ Note 7	C	3		
				15		

☞ 1) ANTH 1150, CRJU 2010, FORL 2001, FORL 2002, FORL 2060, GEOG 1130, HLPR 2010, IDS 2000, INTS 2130, PSYC 2300, RELS 2100, RELS 2130, SABR 2960, SOCI 2000, or WGSS 2200
☞ 2) ENGR 2231, ENGR 2232, or ENGR 3431
☞ 3) HIST 1111 or HIST 1112
☞ 4) ENGL 2100, ENGL 2112, PHIL 2010 or PHIL 2030
☞ 5) ANTH 1102, ECON 1101, ECON 1150, ECON 2105, PSYC 1101, SOCI 1101, or WGSS 2100
☞ 6) BIOL1230 w/ lab1230L,CHEM1040, GEOL1340, or PHYS1149
☞ 7) ART1000, ARTH 2531, COMM1110, HUMN 2321, HUMN 2322, HUMN2433, HUMN2434, MUSC1100, or THEA 1100

EE Electives (minimum of 6 Credit Hours) ***EE Electives may be offered selectively***

		Prerequisites	Cr
EENG 4890	Directed Study in EE	Instructor Approval	3
EENG 5090	Selected Topics in EE	Instructor Approval	1-6
EENG 5234	Nuclear Power Syst. Fundamentals	EENG 3337	3
EENG 5235	Converters Control Techniques	EENG 3337 & EENG 3420 & EENG 5431	3
EENG 5242	Power Systems Protection w/Lab	EENG 3337	4
EENG 5243	Power Electronics w/Lab	EENG 3341 & EENG 3241	4
EENG 5244	Smart Grids w/Lab	EENG 3337	4
EENG 5330	Network Science	EENG 3421	3
EENG 5341	Robotic Syst Design w/Lab	EENG 3340 or MENG 3521	4

		Prerequisites	Cr
EENG 5432	Prog Logic Controllers w/Lab	EENG 3241	3
EENG 5433	Mach. Learning & Adaptive Contro	EENG 3421 & EENG 5431®	3
EENG 5434	Engineering Optimization Methods	EENG 3420 & EENG 5540®	3
EENG 5532	Wireless Communications	EENG 3230 & EENG 5540	3
EENG 5533	Optical Fiber Communications	EENG 5540	3
EENG 5535	Electronic Warfare	ENGR2341 & EENG 3230	3
EENG 5538	Cybersecurity***	ENGR 2332 & EENG 3421 or ***(CSCI 5332 or IT 5434)	3
EENG 5541	Digital Communications w/Lab	EENG 5540	4
EENG 5543	Antennas w/Lab	EENG 3230	4