

B.S. in Electrical Engineering

Electrical Engineering

The Bachelor of Science degree program in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org> (<http://www.abet.org>)

The electrical engineering program at St. Mary's University is best known for its high academic standards and innovative student projects. Every engineering senior completes a year-long design project, some of which have even been patented. The curriculum emphasizes new research findings and industry advances, including computer-aided design tools.

Students become well-versed in science and mathematics; current and relevant technical knowledge; extensive, practical hands-on experience in laboratories; and the opportunity to participate in faculty research projects.

Unique facilities available to electrical engineering students include an electrical engineering laboratory accessible 24-hours a day; an energy conversion laboratory for motors, generators and transformers; a manufacturing and robotics laboratory; and a research laboratory equipped with both UNIX and Windows workstations.

Code	Title	Semester Hours
BS Electrical Engineering Degree Plan (128 hours) - ABET Accredited		
Core Requirements (41 hours)		
First Year Seminar		3
FYE 1301	First Year Seminar	
Freshmen Composition I		3
EN 1311	Rhetoric and Composition	
or EN 1313	Rhetoric and Composition for International Students	
Literature		3
Any EN 23XX literature course		
History		3
Any 1000, 2000, or 3000-level HS course		
Social Science		6
EG 1303	Engineering and Society	
EG 2393	Engineering Economy	
Mathematics		4
MT 2412		
Natural or Physical Sciences		4
PY 1404		
Fine Arts		3
EG 1301		
Philosophy - Self		3
PL 1301	Intro to Philosophy	
Philosophy - Ethics		3
PL 2301	Foundations of Ethics	
Theology - God		3
TH 1301	Introduction to Theology	
Intermediate Theology		3
Any TH 33xx course		
Engineering Management Major Courses (85 hours)		
CH 1401	General Chemistry I	4
EG 1113	C Programming for Engineering Lab	1
EG 1122	MATLAB Programming	1
EG 1213	C Programming for Engineering	2
EG 2113	Logic Design Laboratory	1
EG 2121	Circuit Analysis Laboratory	1

EG 2126	Electronics I Laboratory	1
EG 2313	Fundamentals of Logic Design	3
EG 2321		3
EG 2324	Circuits Analysis II	3
EG 2326	Electronics I	3
EG 2343	Statics	3
EG 3101	Eng. Design & Analysis Workshop I	1
EG 3102	Eng. Design & Analysis Workshop II	1
EG 3121	Electronics II Laboratory	1
EG 3126	Adv Electronics Design Lab	1
EG 3226	Advanced Electronics Design	2
EG 3321	Electronics II	3
EG 3323	Microprocessors I	3
EG 3324	Microprocessors II	3
EG 3325	Signals and Systems	3
EG 3326	Electromagnetic Theory	3
EG 3328	Control Systems	3
EG 3395	Industrial Statistics and Design of Experiments	3
EG 4101	Eng. Design & Analysis Workshop III	1
EG 4122	Energy Conversion Laboratory	1
EG 4301	Senior Design Project I	3
EG 4302	Senior Design Project II	3
EG 4322	Energy Conversion	3
EG 4323	Semiconductor Devices	3
EG 4325	Digital Signal Processing	3
EG 4328	Communication Theory	3
MT 2332	Advanced Math for Engineers I	3
MT 2333	Adv Math for Engineers II	3
MT 2413	Calculus II	4
PY 2404	University Physics II	4
Total Semester Hours		128

This is a recommended degree plan subject to changes. Please meet with your advisor on a regular basis.

First Year

Fall	Semester Hours	Spring	Semester Hours
EG 1303		3 EG 1122	1
EG 1302		3 EG 1301	3
MT 2412		4 MT 2413	4
PY 1404		4 PY 2404	4
FYE 1301		3 PL 1301	3
		EN 1311	3
		17	18

Second Year

Fall	Semester Hours	Spring	Semester Hours
CH 1401		4 EG 2126	1
EG 2113		1 EG 2324	3
EG 2121		1 EG 2326	3
EG 2343		3 MT 3313	3
EG 2313		3 PL 2301	3
EG 2321		3 Literature	3

MT 3312	3		
	18		16
Third Year			
Fall	Semester Hours	Spring	Semester Hours
EG 3121		1 EG 3324	3
EG 3321		3 EG 3326	3
EG 3323		3 EG 3126	1
EG 3325		3 EG 3226	2
EG 3395		3 EG 3328	3
EG 3101		1 EG 3102	1
History		3 TH 1301	3
	17		16
Fourth Year			
Fall	Semester Hours	Spring	Semester Hours
EG 4301		3 EG 3393	3
EG 4325*		3 EG 4122	1
EG 4323		3 EG 4328*	3
EG 4322		3 EG 4302	3
EG 4101		1 Advanced Theology	3
	13		13
Total Semester Hours 128			

* Students in combined BS#MS program may register for an equivalent EG63XX or EG73XX (with EG Chair's approval)