

Bachelor of Science in Electrical Engineering

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year	Fall	
CHE 201	General Chemistry	3
CHE 204	General Chemistry Laboratory	1
ENGR 101	Introduction to Engineering I	2
MATH 251	Differential Calculus	4
WRI 121	English Composition	3
Total		13

Freshman Year	Winter	
CHE 202	General Chemistry*	3
CHE 205	General Chemistry Laboratory*	1
ENGR 102	Introduction to Engineering II	2
MATH 252	Integral Calculus	4
PHY 221	General Physics with Calculus	4
WRI 122	English Composition	3
Total		17

Freshman Year	Spring	
EE 131	Digital Electronics I	4
MATH 254N	Vector Calculus I	4
PHY 222	General Physics with Calculus	4
SPE 111	Fundamentals of Speech	3
Total		15

Sophomore Year	Fall	
EE 133	Digital Electronics II	4
EE 221	Circuits I	4
PHY 223	General Physics with Calculus	4
	Social Science elective	3
Total		15

Sophomore Year	Winter	
CST 116	C++ Programming I	4
EE 223	Circuits II	4
MATH 321	Applied Differential Equations I	4
MATH 341	Linear Algebra I	3
Total		15

Sophomore Year	Spring	
EE 225	Circuits III	4
MATH 253N	Sequences and Series	4
WRI 227	Technical Report Writing	3
	Humanities elective	3
	Social Science elective	3
Total		17

Junior Year	Fall	
EE 321	Electronics I	5
EE 331	Digital System Design with HDL	4
EE 341	Electricity and Magnetism with Transmission Lines	4
MGT 345	Engineering Economy	3
Total		16

Junior Year	Winter	
EE 323	Electronics II	5
EE 333	Microcontroller Engineering	4
EE 343	Solid-State Electronic Devices	3
WRI 327	Advanced Technical Writing	3
Total		15

Junior Year	Spring	
EE 311	Signals and Systems	4
EE 325	Electronics III	5
EE 335	Advanced Microcontroller Engineering	4
	Engineering elective**	3
Total		16

Senior Year	Fall	
EE 411	Senior Project I	2
EE 431	Digital Signal Processing	3
SPE 321	Small Group and Team Communication	3
	Engineering elective**	3
	Social Science elective	3
Total		14

Senior Year	Winter	
EE 412	Senior Project II	2
EE 423	CMOS Digital Integrated-Circuit Design	5
MATH 465	Mathematical Statistics	4
	Engineering elective**	3
	Social Science elective	3...
Total		17

Senior Year	Spring	
EE 401	Communication Systems	5
EE 413	Senior Project III	2
	Humanities elective	3
	Social Science elective	3
Total		13

* Or advisor approved 4 credit Math/Science Elective.

** Requires Advisor Approval

Engineering Electives for Specific Emphases within BSEE Curriculum

Students may choose from the following list for their 9 credits of engineering elective courses in a specific emphasis. Transfer students may use other courses to satisfy an engineering elective. All engineering electives require the approval of a student's academic advisor. All courses may not be offered every year.

Renewable Energy Emphasis

REE 243 Electrical Power	4
REE 412 Photovoltaic Systems	3
REE 413 Electrical Power Conversions Systems	3
Advisor Approved REE Courses	3/4

Electrical Power Emphasis

REE 243 Electrical Power	4
REE 453 Power System Analysis	3
REE 454 Power System Protection and Control	3
Advisor Approved REE Courses	3/4

General EE Electives

EE 307 Seminar	3/4
EE 407 Seminar	3/4
EE 419 Power Electronics	4
EE 421 Analog Integrated-Circuit Design	5
EE 425 Wireless Communication	4
EE 456 Control System Design	3