

Bachelor of Science in Electrical Engineering with emphasis in Telecommunications

Effective Date: Fall 2007

Freshman Year - Fall Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
CHEM 105	General Chemistry I	3	min Math ACT 22 (SAT 510) or MATH 121 (with min grade B) or MATH 125 (with min grade B)	
CHEM 115	General Chemistry Laboratory I	1		CHEM 105
CSCI 251	Programming for Engineering and Sciences	3		MATH 261
EL E 100	Introduction to Electrical Engineering	1		
ENGL 101	English Composition	3		
MATH 261	Calculus I	3		
S-H-F xxx	Soc. Sci.-Hum.-Fine Arts elective	3	(course specific)	(course specific)

Semester Total 17

Freshman Year - Spring Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
CSCI 259	Programming in C++	3	CSCI 111 or CSCI 251	
LIBA 102	First Year Seminar	3		
MATH 262	Calculus II	3	MATH 261 (with min grade C)	
PHYS 211	Physics for Science and Engineering I	3		MATH 262 and PHYS 221
PHYS 221	Laboratory Physics for Science and Engineering I	1		PHYS 211
S-H-F xxx	Soc. Sci.-Hum.-Fine Arts elective	3	(course specific)	(course specific)

Semester Total 16

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Sophomore Year - Fall Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
EL E 335	Principles of Digital Systems	3	CSCI 111 or CSCI 251	EL E 336
EL E 336	Digital Systems Laboratory I	1		EL E 335
ENGR 309	Introductory Mechanics	3		MATH 263 and PHYS 211
MATH 263	Calculus III	3	MATH 262 (with min grade C)	
PHYS 212	Physics for Science and Engineering II	3	PHYS 211	MATH 262 and PHYS 222
PHYS 222	Laboratory Physics for Science and Engineering II	1	PHYS 221	PHYS 212
S-H-F xxx	Soc. Sci.-Hum.-Fine Arts elective	3	(course specific)	(course specific)

Semester Total 17

Sophomore Year - Spring Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
CSCI 361	Introduction to Computer Networks	3	CSCI 223 or EL E 335 or TC 201	
ECON 310	Engineering Economy	3		
ENGR 360	Electric Circuit Theory	4	PHYS 212	MATH 353
MATH 264	Calculus IV	3	MATH 263 (with min grade C)	
MATH 353	Elementary Differential Equations	3		MATH 264

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Junior Year - Fall Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
EL E 331 *	Linear Systems	3	ENGR 360	
EL E 351	Models and Circuits I	3	ENGR 360	
EL E 385	Advanced Digital Systems	3	EL E 335 and EL E 336	
ENGR 361	Electric Circuit Laboratory	1	ENGR 360	
ENGR 410	Engineering Analysis II	4	MATH 264 and MATH 353	
S-H-F xxx	Soc. Sci.-Hum.-Fine Arts elective	3	(course specific)	(course specific)

Semester Total 17

Junior Year - Spring Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
EL E 341	Theory of Fields	3	MATH 264	ENGR 410
EL E 352	Models and Circuits II	3	EL E 351	
EL E 353	Electronics Laboratory	1	ENGR 361	EL E 352
EL E 367	Computer-Aided Design in Electrical Engineering	2		EL E 351 ENGR 361
EL E 386	Advanced Digital Systems Laboratory	1	EL E 385	
EL E 391	Random Signals	3	EL E 331	
TC 415	Telecommunications Laboratory	1	ENGR 360 and ENGR 361	
TC 432	Local Area Networks	3	CSCI 361	

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Senior Year - Fall Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
EL E 431	Theory of Control Systems	3	EL E 331	
EL E 441	Electromagnetic Theory I	3	EL E 341	
EL E 447	Modulation, Noise, and Communications	3	EL E 331 and EL E 352	
EL E 461	Senior Design in Electrical Engineering I	1	EL E 353 and EL E 367	
EL E 533	Electronic Properties of Materials	3		

Semester Total 13

Senior Year - Spring Semester

Course	Course Name	Hrs	Prerequisites	Corequisites
EL E 462	Senior Design in Electrical Engineering II	2	EL E 461	
ENGR 321	Thermodynamics	3	CHEM 105 and MATH 262 and PHYS 211	
S-H-F xxx	Soc. Sci.-Hum.-Fine Arts elective	3	(course specific)	(course specific)
TC 535	Digital Communications	3		
Tech-E xxx	Technical electives 4hr	4	(course specific)	(course specific)

Semester Total 15

* ENGR 330 can be used as a substitute course, ONLY if EL E 331 is not being taught