

Electrical Engineering Concentration Outline

()=Pre-requisites, Co=Co-requisites

Fall Semester			Spring Semester		
Freshman					
ENGR120	Intro to Engineering & Design	2	ENGR181	Material Properties and Processes	3
ENGR125	Engineering Graphics	3	ENGR185	Engineering Statics (MATH191)	3
MATH191	Calculus I (P5, or MATH167, or MATH168)	4	MATH192	Calculus II (MATH191 or MATH195)	4
HLED135	Wellness	3	RELT100	God & Human Life	3
ENGL115	College Writing I	<u>3</u>	COMM104	Communication Skills	<u>3</u>
		15			16
Sophomore					
ENGR225	Circuit Analysis (MATH191)	3	ENGR275	Electronics I (ENGR225)	3
PHYS241	Physics for Scientists I (MATH192; Co: PHYS271)	4	ENGR285	Engineering Dynamics (ENGR185, PHYS241 , and MATH192; Co: MATH286)	3
PHYS271	Physics for Scientists Lab 1 (Co: PHYS241)	1	MATH286	Differential Equations (MATH192)	3
MATH240	Calculus III (MATH192)	4	CPTR152	Computer Science II (CPTR151)	3
CPTR151	Computer Science I	3	PHYS242	Physics for Scientists II (MATH192 and PHYS241; Co: PHYS 272)	4
ENGL215	College Writing II (ENGL115 or ENGL117)	3	PHYS272	Physics for Scientists II (PHYS242)	1
		<u>18</u>			<u>17</u>
Junior					
ENGR365	Numerical Methods for Engineers	3	ENGR310	Linear Systems Analysis (MATH240, MATH286, PHYS 242)	3
ENGR325	Electronics II (ENGR275)	4	ENGR385	Microprocessor Systems (ENGR335 or CPTR276)	4
ENGR335	Logic Circuit Design (ENGR275)	3	ENGR435*	Electromagnetic Fields (MATH240, MATH286, PHYS 242)	4
ENGR	ENGR Elective	3	ENGR	ENGR Elective	3
INEN221	Intro to Innovation and Entrepreneurship	3	REL	Religion (RELB,RELG,RELT)	3
		<u>16</u>			<u>17</u>
Senior					
ENGR410	Feedback Control (ENGR275, ENGR285)	4	ENGR492	Senior Design Project (ENGR491)	3

ENGR450	Engineering Economy (MATH145 or MATH191)	2	ENGR455	Communications Systems (ENGR310, ENGR325, STAT340)	4
ENGR491	Review of Engineering Design (ENGR355, 385 or 390)	1	GEN ED	Social Sciences	3
STAT340	Probability and Statistics (MATH191 or MATH195)	3	REL	Religion (RELG, RELB, RELT)	3
REL	Religion (RELB,RELG,RELT)	3	HIST110	Worldviews, Cultures, and God	3
GEN ED	Arts and Humanities	<u>3</u>			
	Offered every other year*	16			<u>16</u>
Suggested 4-year course outline per Bulletin 2023-2024			Total Credits for Graduation		131