

Electrical Engineering Concentration Outline

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

MPE = P5

Some general education courses may be taken during the summers

Fall Semester

Spring Semester

Freshman

ENGR120	Intro to Engineering & Design	2	ENGR181	Material Properties and Processes	3
ENGR125	Engineering Graphics Calculus I	3	HIST110	Worldviews, Cultures, and God	3
MATH191	(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

ENGR185	Engineering Statics (MATH191)	3	ENGR225	Circuit Analysis (MATH191)	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 9:30 MWF	3	PHYS242	Physics for Scientists II (MATH192 and PHYS241; Co: PHYS 272)	4
INEN221	Intro to Innovation and Entrepreneurship	<u>3</u>	PHYS272	Physics for Scientists II (PHYS242)	<u>1</u>
		18			17

Junior

ENGR275	Electronics I (ENGR225)	3	ENGR310	Linear Systems Analysis (MATH240, MATH286, CPTR151)	3
ENGR365	Numerical Methods for Engineers College Writing II	3	GEN ED	Social Sciences	3
ENGL215	(ENGL115 or ENGL117)	3	STAT340	Probability and Statistics (MATH191 or MATH195)	3
ENGR435*	Electromagnetic Fields (MATH240, MATH286, PHYS 242)	4	ENGR325	Electronics II (ENGR275)	4
REL	Religion (RELB, RELG, RELT)	3	ENGR335	Logic Circuit Design (ENGR275)	3
ENGR450	Engineering Economy (MATH115 or MATH191)	<u>2</u>			
		18			16

Senior

ENGR385	Microprocessor Systems	4	ENGR492	Senior Design Project	3
ENGR	Elective	3	ENGR	Elective	3
ENGR491	Review of Engineering Design (ENGR355, 385 or 390)	1	REL	Religion (RELG, RELB, RELT)	3
REL	Religion (RELB, RELG, RELT)	3	GEN ED	Arts/Humanities	3
ENGR410	Feedback Control (ENGR275, ENGR285, ENGR310)	<u>4</u>	ENGR455	Communications Systems (ENGR310, ENGR325, STAT340)	<u>4</u>
		15			16

Offered every other year*

Suggested 4-year course outline per Bulletin 2024-2025

Total Credits for Graduation

131