

ELECTRICAL ENGINEERING (2023-2024)

Suggested 8-Semester Plan (Updated 11 Apr 2023)					
1st Year	Session	Course	Course Title	SH	Pre-Requisite or Co-Requisite
1st Semester (includes triad)	ALL	ENGL 1301	Writing and Rhetoric I	3	n/a
	ALL	HIST 1301	US History to 1865 <i>(Core Curriculum)</i>	3	n/a
	F	UNIV 1101	University Seminar I	1	n/a
	ALL	MATH 2413	Calculus I	4	Prereq: MATH 1314, or MATH 2312, or minimum score of 640 in 'SAT MATH SECTION', or minimum score of 27 in 'ACT1 Math'
	ALL	CHEM 1411	General Chemistry I	4	Co-req: SMTE 0093
	F/S	ENGR 1201	Introduction to Engineering	2	Prereq: MATH 1314 - College Algebra or equivalent academic preparation
TOTAL HRS				17	
2nd Semester	ALL	ENGL 1302	Writing and Rhetoric II	3	Prereq: ENGL 1301 Writing and Rhetoric I
	ALL	HIST 1302	US History since 1865 <i>(Core Curriculum)</i>	3	n/a
	S	UNIV 1102	University Seminar II	1	n/a
	ALL	MATH 2414	Calculus II	4	Prereq: MATH 2413 Calculus I
	F/S	MATH 2305	Discrete Math I	3	Prereq: MATH 2413 Calculus I, or minimum score of 620 in 'SAT Math', or minimum score of 620 in 'SAT1 Mathematics', or minimum score of 640 in 'SAT MATH SECTION', or minimum score of 27 in 'ACT Math' or minimum score of 27 in 'ACT1 Math'
	F/S	PHYS 2425	University Physics I	4	Prereq: MATH 2413 Calculus I; co-req: SMTE 0095
TOTAL HRS				18	
2nd Year	Session	Course	Course Title	SH	Pre-Requisite or Co-Requisite
1st Semester	F/S	ENGR 2306	Digital Systems I	3	Prereq: MATH 1314 - College Algebra; prereq or co-req MATH 2305 - Discrete Mathematics I; co-req: ENGR 2106 - Digital Systems Laboratory
	F/S	ENGR 2106	Digital Systems I Lab	1	Co-req: ENGR 2306 Digital Systems, SMTE 0099; pre-req: MATH 1314 College Algebra
	F/S	COSC 1320	C Programming	3	Prereq: MATH 1314 College Algebra
	F/S	MATH 2415	Calculus III	4	Prereq: MATH 2414 Calculus II
	F/S	PHYS 2426	University Physics II	4	Prereq: PHYS 2425 University Physics I and MATH 2414 Calculus II; co-req: SMTE 0095
	ALL	CREATIVE ARTS CORE	Choose one: ARTS 1301 or 1303 or MEDA 1305 or MUSI 1306 or 1307 or THEA 1310 or 1351 or COMM 1315	3	n/a
TOTAL HRS				18	
2nd Semester	F/S	ENGR 2325	Statics	3	Prereq: PHYS 2425 University Physics I; pre-req/co-req: MATH 2414 - Calculus II
	F/S	ENGR 3316*	Thermodynamics	3	Prereq: PHYS 2425 University Physics I and MATH 2414 Calculus II
	F/S	MATH 3315*	Differential Equations	3	Prereq: MATH 2414 Calculus II
	F/S	ENGR 3322	Materials Science	3	Prereq: CHEM 1411 General Chemistry I and PHYS 2425 University Physics I
	F/S	ENGR 2460	Circuit Analysis	4	Prereq: PHYS 2426 - University Physics II and MATH 2414 - Calculus II; pre/co req MATH 3315 - Differential Equations or equivalent; co-req: SMTE 0099
	TOTAL HRS				16
3rd Year	Session	Course	Course Title	SH	Pre-Requisite or Co-Requisite
1st Semester	F/S	EEEN 3315*	Electrical Circuits II	3	Prereq: ENGR 2305 - Electrical Circuits or ENGR 2460 - Circuit Analysis
	F/S	MATH 3311*	Linear Algebra	3	Prereq: A grade of C or better in MATH 2413
	F	EEEN 3418*	Microprocessors and Microcontrollers	4	Prereq: COSC 1320 - C Programming, ENGR 2306 - Digital Systems, and ENGR2106 - Digital Systems Laboratory; co-req: SMTE 0099
	ALL	MATH 3345*	Statistical Modeling and Data Analysis	3	Prereq: MATH 2413 Calculus I and (COSC 1330 - Programming for Scientists, Engineers, and Mathematicians or COSC 1435 Introduction to Problem Solving with Computers I)
	ALL	POLS 2305	U.S. Government and Politics	3	n/a
TOTAL HRS				16	
2nd Semester	S	EEEN 3310*	Electromagnetic Theory	3	Prereq: PHYS 2426 University Physics II, MATH 2415 Calculus III, MATH 3315 Differential Equations, EEEN 3315 Electrical Circuits II
	S	EEEN 3330*	Control Systems I	3	Prereq: (ENGR2460 - Circuit Analysis or ENGR 2305 Electrical Circuits I) and MATH 3311 Linear Algebra
	S	EEEN 3350*	Electronic Systems Design	3	Prereq: ENGR 2306 -Digital Systems, ENGR 2460 - Circuit Analysis or equivalent (ENGR 2305 Electrical Circuits and ENGR 2105 Electrical Circuits Lab), and EEEN 3315 - Electrical Circuits II
	S	EEEN 3320*	Introduction to Communication Theory & Systems	3	Prereq: (ENGR 2460 Circuit Analysis or (ENGR 2305 Electrical Circuits and 2105 Electrical Circuits Lab)) and MATH 3345 - Statistical Modeling and Data Analysis
		TECHNICAL ELECTIVE*	Varies	3	Varies
	ALL	SOCIAL SCIENCE	Choose one: ECON 1301 or 2301 or 2302 or PSYC 2301 or SOCI 1301 (Core Curriculum)	3	ECON 1301 recommended
TOTAL HRS				18	
4th Year	Session	Course	Course Title	SH	Pre-Requisite or Co-Requisite
1st Semester	F	ENGR 4420*	Engineering Lab Measurements	4	Prereq: PHYS 2426 University Physics II and (MATH 3342 Applied Probability and Statistics or MATH 3345 Statistical Modeling and Data Analysis); co-req: SMTE 0099
	F/S	ENGR 4240*	Project Management	2	Prereq: EEEN 3330 Control Systems I, EEEN 3310 Electromagnetic Theory, & EEEN 3350 Electronic Systems Design
	F	EEEN 4310*	Signal Processing	3	Prereq: EEEN 3320 Introduction to Communications Theory & EEEN 3330 Control Systems I
	ALL	LANGUAGE, PHILOSOPHY, CULTURE	Choose one ENGL 2316, 2332, or 2333 or PHIL 1301 or 2306 or SPAN 2315, 3304, 3305, 3320, or 3325 (Core Curriculum)	3	PHIL 2306 Introduction to Ethics recommended
		TECHNICAL ELECTIVE*	Varies	3	Varies
TOTAL HRS				15	
2nd Semester	F/S	ENGR 4370*	Capstone Project	3	Prereq: ENGR 4240 - Project Management; co-req: SMTE 0099
	S	EEEN 4333*	Machine Vision and Image Processing Applications	3	Prereq: (COSC 1320 C Programming or COSC 1435 Introduction to Problem Solving with Computers I) and ENGR 2460 Circuit Analysis and MATH 2414 Calculus II and EEEN 4310 Signal Processing
		TECHNICAL ELECTIVE*	Varies	3	Varies
	ALL	POLS 2306	State & Local Government	3	n/a
TOTAL HRS				12	
		*Upper division credit	FOREIGN LANGUAGE		Met if had 2 years in HS or 2 college level courses
			TOTAL HOURS FOR DEGREE PLAN	130	(128 if no UNIV required)
			TOTAL UPPER DIVISION HOURS*	52*	