

ELECTRICAL ENGINEERING (Suggested 8 Semester Plan) 17-18 Catalog

Suggested Four Year Plan						
1st Year	Session	Course	Course Title	SH	GRD	Pre-Requisite or Co-Requisite
1st Semester (includes triad)	ALL	COMM 1311	Foundation of Communication	3		n/a
	ALL	HIST 1301	US History to 1865 <i>(Core Curriculum)</i>	3		n/a
	F	UCCP 1101	First Year Seminar	1		n/a
	ALL	MATH 2413	Calculus I	4		Placement
	ALL	CHEM 1411	General Chemistry I	4		MATH 1314 College Algebra or beyond
	F/S	ENGR 1211	Foundations of Engineering I	2		n/a
TOTAL HRS				17		
2nd Semester	ALL	ENGL 1302	Writing and Rhetoric	3		n/a
	ALL	HIST 1302	US History since 1865 <i>(Core Curriculum)</i>	3		n/a
	S	UCCP 1102	First Year Seminar	1		n/a
	ALL	MATH 2414	Calculus II	4		Math 2413 Calculus I
	F/S	MATH 2305	Discrete Math I	3		Math 1316 Trigonometry or Math 2312 Precalculus or beyond
	F/S	PHYS 2425	University Physics I	4		Math 2413 Calculus I
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		Math 1314 College Algebra or beyond, co-req Engr 2106
	F/S	ENGR 2106	Digital Systems I Lab	1		corequisite Engr 2306
	F/S	COSC 1330	Programming for Scientist, Engineers & Mathematicians	3		Math 1314 College Algebra or beyond
	F/S	MATH 2415	Calculus III	4		Math 2414 Calculus II
	F/S	PHYS 2426	University Physics II	4		Phys 2425 Univ Phys I
TOTAL HRS				15		
2nd Semester	F/S	ENGR 2325	Statics	3		Phys 2425 Univ Phys I
	F/S	ENGR 2316	Thermodynamics	3		Math 2414 Calculus II & Phys 2425 Univ Physics I *Cal III Ideal
	F/S	MATH 3315*	Differential Equations	3		Math 2414 Calculus II
	F/S	ENGR 2322	Materials Science	3		Chem 1411 Gen Chem I & Phys 2425 Phys I
	F/S	ENGR 2460	Circuit Analysis	4		Pre or Co-requisite Phys 2426 University Physics II
TOTAL HRS				16		
3rd Year	Session	Course	Course Title	SH		Pre-Requisite or Co-Requisite
1st Semester	F	EEEN 3315*	Electrical Circuits II	3		Engr 2460 Circuit Analysis I
	F/S	MATH 3311*	Linear Algebra	3		Math 2413 Calculus I
	F	EEEN 3418*	Microprocessors and Microcontrollers	4		Cosc 1330 Prog for Engr, Engr 2306 Digital Systems and lab
	ALL	MATH 3345*	Statistical Modeling and Data Analysis	3		Math 2413 Calculus I
	ALL	POLS 2305	U.S. Government and Politics	3		n/a
TOTAL HRS				16		
2nd Semester	S	EEEN 3310*	Electromagnetic Theory	3		Phys 2426 Univ Phys II, Math 3470 Cal III, Math 3315 Diff EQ, Eeen 3315 Elect. Circuits II
	S	EEEN 3330*	Control Systems I	3		Engr 2460 Circuit Analysis
	S	EEEN 3350*	Electronic Systems Design	3		Engr 2460 Circuit Analysis & Engr 2305/2301 Digital Systems
	S	EEEN 3320*	Introduction to Communication Theory & Systems	3		Engr 2460 Circuit Analysis
	ALL	CREATIVE ARTS CORE	Choose one Arts 1301 or 1303 or Musi 1306 or 1307 or Thea 1310 or 1351 or Comm 1305	3		n/a
ALL	SOCIAL SCIENCE	Choose one: Econ 2301 or 2302 or Soci 1301 or Psyc 2301 (Core Curriculum)	3		Economics is recommended for Engineering	
TOTAL HRS				18		
4th Year	Session	Course	Course Title	SH		Pre-Requisite or Co-Requisite
1st Semester	F	EEEN 4420*	Engineering Measurements	4		Engr Circuit Analysis or equivalent
	F/S	EEEN 4240*	Project Management	2		Eeen 3330 Control Systems I, Eeen 3310 EM Theory, & Eeen 3350 Elect Sys Design. Permission from Dept.
	F	EEEN 4310*	Signal Processing	3		Eeen 3330 Control Systems I
		TECHNICAL ELECTIVE*	Varies	3		Varies
		TECHNICAL ELECTIVE*	Varies	3		Varies
TOTAL HRS				15		
2nd Semester	F/S	EEEN 4370*	Capstone Project	3		Permission of Engineering Dept., Eeen 4240 Project Mgmt.
	S	EEEN 4333*	Machine Vision and Image Processing Applications	3		Cosc 1330 Prog. Sci, Engr, Math, Engr 2460 Circuit Analysis
		TECHNICAL ELECTIVE*	Varies	3		Varies
	ALL	POLS 2306	State & Local Government	3		n/a
	ALL	LANGUAGE, PHILOSOPHY, CULTURE	Choose one ENGL 2322, 2333, 2334 or 2335 or SPAN 3307, 3308, 3309 or 3310 or PHIL 1301 or 2306 (Core Curriculum)	3		Varies
TOTAL HRS				15		
*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 UCCP required)
				TOTAL UPPER DIVISION HOURS*	52*	

TECH ELECTIVES

CHOOSE THREE FROM THE FOLLOWING LIST:
EEEN 4330 INTR TO PLASMA ENGR & APPL - PRE REQ: Engr 2322 Mat Sci & Engr 2460 Circuit Analysis
EEEN 4390 SPECIAL TOPICS
ENTC 4496 DIRECTED INDEPENDENT STUDY
MEEN 4335 INTR TO AIRCRAFT AERODYNAMICS & PERFORMANCE - PRE REQS Engr 2326 Dynamics
MEEN 4350 CONTROLS, AUTOMATION & ROBOTICS PRE-REQS: Math 3315 Diff EQ, Engr 2326 Dynamics & Engr 2460 Circuit Analysis
MEEN 3335 INTRO TO UNMANNED AERIAL SYSTEMS PRE-REQ: Junior standing
MEEN 4375 FUEL CELLS - PRE REQS. Engr 2316 Thermo, Meen 3345 Heat Transfer & Chem 1411 Gen Chem I
MEEN 4380 RENEWABLE ENERGY PRE-REQS ENGR 2316, MEEN 4325, ENGR 2360

Students are responsible for achieving a 2.25 GPA in their major course

Any changes/exceptions to this Degree Plan must be approved

See your Faculty Mentor each semester and your Academic Advisor as needed

Semesters courses are offered is subject to change
Students are responsible for taking courses in the proper sequence to ensure orderly progression of work

You must maintain a minimum GPA of 2.0 throughout your academic career to avoid Academic Probation or Suspension

GENERAL ELECTIVES: (none required)

Technical Electives					
MEEN	3340	Solid Modeling and Finite Elements 4th year	MEEN	3310	Engineering Analysis for ME
			ENGR	2320	Strength of Materials
MEEN	4325	Energy Conversion 3rd year	ENGR	2316	Thermodynamics
MEEN	4350	Controls, Automation and Robotics 3rd year 2nd sem	MATH	3315	Differential Equations
			ENGR	2360	Circuit Analysis
			ENGR	2326	Dynamics
MEEN	4355	Marine Fabrication 4th year	ENGR	2350	Manufacturing Processes
MEEN	4380	Renewable Energy 3rd year	ENGR	2316	Thermodynamics
			MEEN	4325	Energy Conversion
			ENGR	2360	Circuit Analysis
MEEN	4385	Offshore Energy Management 4th year	MEEN	3345	Heat Transfer
MEEN	4390	Intro to Computational Fluid Dynamics 4th year	MEEN	3345	Heat Transfer
MEEN	4395	Offshore Water Exploration and Desalination Systems 3rd Year	ENGR	2316	Thermodynamics
FUTURE PROPOSED COURSES					
		Aerospace	ENGR	2326	Dynamics
		Fuel Cell	MEEN	3345	Heat Transfer
			CHEM	1311	Chemistry I
			CHEM	1111	Chemistry I Lab
		Plasma Engineering	PHYS	2426	University Physics II
			ENGR	2322	Material Science