

Bachelor of Science in Electrical Engineering - Sample Plan

Environmental Applications Concentration

This plan is suggested for students entering Academic Year 2023-2024 who are ready for calculus.

Semester 1: Semester 2:

Course:	Title:	CR.
MA 1160/61	Calculus I w/Technology	4
ENG 1101	Engg Analysis & Prob. Solving	3
CH 1150	University Chemistry 1	3
CH 1151	University Chemistry 1 Lab	1
CH 1153	Optional Chem. Recitation (1 cr.)	1
UN 1015	Composition (1)	3
Total:		14

Course:	Title:	CR.
MA 2160	Calculus II w/Technology	4
ENG 1102	Engineering Modeling and Design	3
PH 1100	Physics by Inquiry I	1
PH 2100	University Physics I – Mechanics	3
UN 1025	Global Issues (1)	3
	CORE Social Responsibility/Ethical Reas.(1)	3
Total:		17

Semester 3: Semester 4:

Course:	Title:	CR.
MA 2321 (2)	Elementary Linear Algebra	2
MA 3521 (2)	Elementary Differential Equations	2
EE 2111	Electric Circuits I	3
CS 1111	Intro. to Programming in C / C++	3
PH 1200	Physics by Inquiry 2 Lab	1
PH 2200	University Physics II	3
	CORE Critical/Creative Thinking (1)	3
Total:		17

Course:	Title:	CR.
EE 2112	Electric Circuits II and Lab	4
EE 3120	Electric Energy Systems	3
EE 2174	Digital Logic and Lab	4
MA 3160	Multivariable Calculus w/Technology	4
	<i>Remote sensing choice 2 may begin Sem. 4 or 6</i>	
Total:		15

Semester 5: Semester 6:

Course:	Title:	CR.
CEE 3501	Environmental Engg. Fundamentals	3
EE 3160	Signals and Systems	3
EE 3140	Electromagnetics	3
EE 3131	Electronics and Lab	4
	HASS Humanities/Fine Arts (1)	3
	<i>Take ENT3950 if choosing Enterprise</i>	
Total:		16

Course:	Title:	CR.
CEE 3502	Env. Monitoring & Measurement Analysis	3
EE 3901	Design Fundamentals	2
EE 3171	Microcontroller Applications for CPS	4
	<i>Take EE 2190 if choosing remote sensing choice 2 (EE 2190 + EE 3190) (4) Or take HASS (1)</i>	3
	HASS Social & Behavioral Science (1)	3
	<i>Take ENT 3960 if choosing Enterprise</i>	
Total:		15

Semester 7: Semester 8:

Course:	Title:	CR.
EE 4901 (5)	ECE Senior Design Project I	2
	<i>or take ENT 4950 if Enterprise</i>	
	Environmental Quality Elective (3)	3
	<i>Take EE4252 if remote sensing choice 1. Or take EE3190 if remote sensing choice 2. (4)</i>	3-4
EE 3180	Probability & Random Signal Analysis	3
	EE Elective (6)	3
	EE Elective (6)	3
Total:		17-18

Course:	Title:	CR.
EE 4910 (5)	ECE Senior Design Project II	2
	<i>or take ENT 4960 if Enterprise</i>	
	Environmental Quality Elective (3)	3
	<i>(4) Take GE 4250 if choosing remote sensing choice 1. Or take HASS (1)</i>	3
	EE Elective (6)	3
	Free Electives	2-3
	HASS Elective (1)	3
Total:		16-17

Total credits: 128 + 3 units co-curricular activities

This is a suggested plan which can vary by individual student, and which shows a path through the program which avoids time conflicts. Students are responsible for monitoring degree progress and meeting degree requirements. Refer to the degree audit.

- (1) Follow university General Education CORE and HASS requirements. All students must add 3 units of co-curricular activities. GE 2100 is suggested HASS course, from the HASS restricted list. Take 4th HASS course in Sem. 6 or 8 depending on remote sensing path.
- (2) May substitute MA2320 for MA2321 and/or MA3520 for MA3521. MA2320 and MA3520 are taken in separate semesters.
- (3) Choose one course from the list of Environmental Quality Elective courses. Examples include: Air Quality, Surface Water Quality.
- (4) Remote Sensing area choice: Choose one set of two courses: 1) EE 4252 and GE 4250 or 2) EE 2190 and EE 3190.
- (5) Approved Engineering Design courses: (EE 4901 & EE 4910) or (MEEM 4901 & MEEM 4911) or Enterprise (ENT3950 & ENT3960 & ENT 4950 & ENT 4960). Recommended enterprises include: BMSE, OSHE, WCE, RSE, and Alternative Energy with EE applications.
- (6) Choose EE courses offered among various areas of specialization (focus areas). Mix and match as the student likes.

Last updated: 7-Mar-23