

B.S. Electrical Engineering Degree (Fall 2025)

This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.

First Year

Fall

Course	Prerequisite	Credit
MA 1160 Calculus with Technology I		4
PH 1100 Physics I Lab	MA 1160(C)	1
ENG 1101 Engineering Analysis & Problem Solving	MA 1160(C)	3
CS 1121 Introduction to Programming I		3
UN 1015 Composition		3
Essential Education: Activities for Well-being and Success		1
Total		15

Spring

Course	Prerequisite	Credit
MA 2160 Calculus with Technology II	MA 1160	4
PH 2100 University Physics I	MA 1160, PH 1100(C)	3
CH 1150 University Chemistry I	MA 1160(C)	3
CH 1151 University Chemistry Lab I		1
ENG 1102 Engineering Modeling & Design	ENG 1101, MA 1160(C)	3
Essential Education: Foundations of the Human World		3
Total		17

Second Year

Fall

Course	Prerequisite	Credit
MA 2321 Elementary Linear Algebra	MA 2160	2
MA 3521 Elementary Differential Equations	MA 2160	2
PH 1200 Physics II Lab	PH 1100	1
PH 2200 University Physics II	MA 2160, PH 2100, PH 1200(C)	3
EE 2112 Electric Circuits & Lab	MA 3521(C)	4
Essential Education: Arts & Culture		3
Total		15

Spring

Course	Prerequisite	Credit
MA 3160 Multivariable Calculus with Technology	MA 2160	4
EE 2174 Digital Logic & Lab	CS 1121	4
EE 3120 Electric Energy Systems	EE 2112	3
Essential Education: Communication Intensive		3
Essential Education: Activities for Well-being and Success		1
Total		15

Third Year

Fall

Course	Prerequisite	Credit
EE 3131 Electronics & Lab	EE 2112	4
EE 3140 Electromagnetics	EE 2112, MA 2160, PH 2200	3
EE 3160 Signals & Systems	EE 2112, MA 2321, MA 3521	3
Essential Education: SHAPE		3
Essential Education: Intercultural Competency		3
Total		16

Spring

Course	Prerequisite	Credit
EE 3174 Introduction to Microcontrollers & Embedded Systems	EE 2174, CS 1121	4
EE 3180 Introduction to Probability & Random Signal Analysis	EE 3160	3
EE 3901 Design Fundamentals	EE 2112, UN 1015	2
EE Technical Elective		3
Select Approved Elective		3
Total		15

Fourth Year

Fall

Course	Prerequisite	Credit
Free Elective		3
EE Technical Elective		3
EE Technical Elective		3
EE Technical Elective		3
Essential Education: Experience		3
Essential Education: Activities for Well-being and Success		1
EE 4901 EE Design Project 1	EE 3131, EE 3901, EE 3174(C)	2
Total		18

Spring

Course	Prerequisite	Credit
EE Technical Elective		3
EE Technical Elective		3
EE Technical Elective		3
EE Technical Elective		3
Approved Elective		3
EE 4910 EE Design Project 2	EE 4901	2
Total		17

Grand Total = 128 Credits

*Prerequisites must be completed before the course. Concurrent prerequisites—identified with a (C)—may be taken before or alongside the course.

1. **Math:** Students are placed into an initial math course based on ACT/SAT math score, the online ALEKS assessment, or a math placement exam score for credit (AP, IB, CLEP). MA1160 (4 credits) or MA1161 (5 credits) satisfy the Calculus 1 requirement.
2. **Essential Education Requirements: 24 total credits.** Required courses are UN1015: *Composition* (3 credits), a Foundations of the Human World course (3 credits), a Communication Intensive course (3 credits), an Arts & Culture course (3 credits), an Intercultural Competency course (3 credits), a SHAPE course (3 credits), an Essential Education Experience course (3 credits), and 3 credits of Activities for Wellbeing and Success courses.
3. **Free Electives:** variable. Any coursework is allowable, excluding coursework below the 1000-level. The number of free elective credits required is dependent on how many additional credits are required beyond Major requirements and Essential Education requirements to reach a total of 128 credits.
4. **EE Technical Electives: 24 credits.** Any EE course except EE3010, EE4000, EE4805, EE4901, EE 4910, and those in major requirements. No more than seven credits of EE 2000-level courses are allowed.
5. **SELECT Approved Elective - choose one course:** BE2400, BL2010, CS1142, CEE3502, CEE3503, EC3400, EE3373 (or EET3373), ENG2120, ENG3200, ENG4515, ME2110, ME2700, ME3201, MSE2100, MSE4292, PH2300, PH2400, PH3300
6. **Approved Electives:** refer to your degree audit report with the engineering design path for list of valid courses.