School of Engineering and Engineering Technology
ELECTRICAL & COMPUTER ENGINEERING, B.S.
ELECTRICAL CONCENTRATION
ECEN.ELTR/ECEE
2025-26
SUGGESTED COURSE SEQUENCE

First Semester - Fall			
16 Hours			
	BIBL	1033	3	Biblical Literature
	COSC	1303	3	Computer Science I
	ENGL	1013	3	English Composition I
	ENGR	1513	3	Intro to Engineering Practice I (Fall only)
	LETU	1101	1	Cornerstones of Life & Learning
	MATH	1903	3	Calculus I [1]

Second Semester - Spring			
17 Hours			
	ENGL	1023	3	English Composition II
	ENGR	1311	1	Manufacturing Processes Lab
	ENGR	1523	3	Intro to Engineering Practice II (Spring only)
	MATH	2013	3	Calculus II [1]
	PHYS	2011	1	University Physics I Lab (Spring only)
	PHYS	2013	3	University Physics I (Spring only)
	THEO	2043	3	Biblical Theology for the Christian Life

Third Semester - Fall			
17 Hours			
	COMM	1113	3	Intro to Speech Communication
	EEGR	2051	1	Circuits & Measurements Lab [1]
	EEGR	2053	3	Electric Circuits [1]
	MATH	2203	3	Differential Equations
	PHYS	2021	1	University Physics II Lab (Fall only)
	PHYS	2023	3	University Physics II (Fall only)
			3	Civic Engagement Elective

Fourth Semester - Spring			
17 Hours			
	CHEM	1111	1	General Chemistry I Lab
	CHEM	1113	3	General Chemistry I
	EEGR	2163	3	Advanced Circuits (Spring only) [1]
	EEGR	3213	3	Digital Electronics
	ENGR	2400	0	Sophomore Design Seminar (Spring only)
	ENGR	2704	4	Project Mgmt, Design & Entrepreneurship
	MATH	2023	3	Calculus III

Fifth Semester - Fall			
15 Hours			
	EEGR	3243	3	Electronics and Lab (Fall only)
	EEGR	4513	3	Electromagnetic Fields & Waves (Fall only)
	ENGR	2023	3	Introduction to Mechanics [1]
	MATH		3	Math Elective [4]
			3	Civic Engagement Elective

Sixth Semester - Spring			
15 Hours			
	BUSI	3023	3	Entrepreneurship for Engineers [3]
	EEGR	3233	3	Intro to Microcontrollers (Spring only) [2]
	EEGR	3253	3	Advanced Electronics & Lab (Spring only)
	EEGR	4283	3	Digital Signal Processing (Spring only)
			3	Technical Elective [5]

Seventh Semester - Fall			
15 Hours			
	BIBL		3	Biblical Engagement Elective
	EEGR	3523	3	Mechatronics (Fall only)
	ENGR	4813	3	Senior Design I (Fall only)
	MATH	3403	3	Statistics
			3	Humanities & Fine Arts Elective

Eighth Semester - Spring			
15 Hours			
	EEGR	4613	3	Communications Engineering (Spring only)
	EEGR		3	Technical Elective [6]
	ENGR	4823	3	Senior Design II (Spring Only)
	MATH	2003	3	Discrete Mathematics
	THEO		3	Theological Engagement Elective

TOTAL HOURS 127

1: Minimum grade of 'C' required.
2: EEGR 4233 Introduction to Microprocessors and Microcomputers (Fall) may be substituted for EEGR 3233.
3: ENGR 6223 Advanced Engineering Mathematics recommended if considering engineering graduate school.
4: MATH 4403 (recommended) or 2303
5: Any approved engineering course or COSC course.
5: Any 4000 level approved EEGR course

rev 4/22/2025

B.S. Electrical and Computer Engineering
Technical Course Sequence - Electrical Concentration
2025-2026

FRESHMAN		SOPHOMORE		JUNIOR		SENIOR	
Fall	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**

Course nodes:

- Calculus I [1] **MATH 1903** (F & S)
- Calculus II [1] **MATH 2013** (F & S)
- Differential Equations **MATH 2203** (F & S)
- Calculus III **MATH 2023** (F & S)
- Math elective [4] (3hrs)
- Entreprenuership for Engineers [3] **BUSI 3023** (F & S)
- Statistics **MATH 3403** (F & S)
- Technical Elective [6] (3hrs)
- Advanced Circuits [1] **EEGR 2163** (S)
- Communications Engineering **EEGR 4613** (S)
- Mechantronics **EEGR 3523** (F)
- University Physics I and Lab **PHYS 2011 / 2013** (S)
- University Physics II and Lab **PHYS 2021 / 2023**
- General Chemistry I and Lab **CHEM 1111 / 1113** (F & S)
- Elecromagnetic Field and Waves **EEGR 4513** (F)
- Approved Technical Elective (3hrs)
- Discrete Mathematics **MATH 2003** (F & S)
- Manufacturing Processes Lab **ENGR 1311** (F & S)
- Electric Circuits [1] **EEGR 2053** (F & S)
- Digital Electronics **EEGR 3213** (F & S)
- Intro to Microcontrollers [2] **EEGR 3233** (S)
- *Senior Design I **ENGR 4813** (F)
- Senior Design II **ENGR 4823** (S)
- Digital Signal Processing **EEGR 4283** (S)
- Circuits and Measurements [1] Lab **EEGR 2051** (F&S)
- Electronics & Lab **EEGR 3243** (F)
- Intro to Engineering Practice I **ENGR 1513** (F)
- Intro to Engineering Practice II **ENGR 1523** (S)
- Sophomore Design Seminar **ENGR 2400** (S)
- Advanced Electronics [5] **EEGR 3253** (S)
- Project Mgmt, Design & Entreprenuership **ENGR 2704** (F & S)
- Intro to Mechanics [1] **ENGR 2023** (F & S)

Footnotes:

1: Minimum grade of 'C' required.
2: EEGR 4233 Introduction to Microprocessors and Microcomputers (Fall) may be substituted for EEGR 3233.
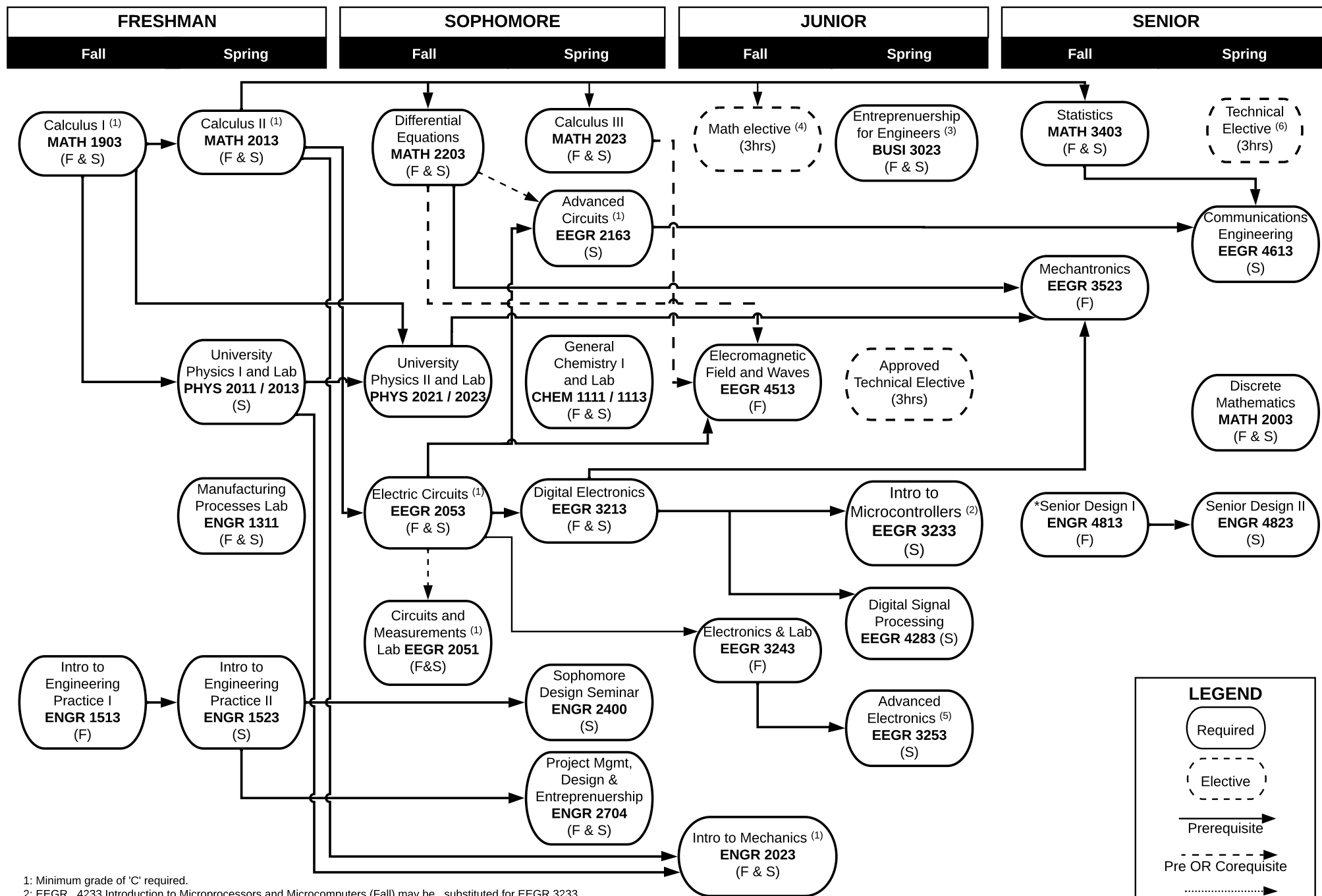3: ENGR 6223 Advanced Engineering Mathematics recommended if considering engineering graduate school.
4: MATH 4403 (recommended) or 2303
5: Any approved engineering course or COSC course
6: Any 4000 level approved EEGR course

* Senior standing, completion of junior courses in concentration, and consent of instructor required.

LEGEND

- Required
- Elective
- Prerequisite
- Pre OR Corequisite
- Corequisite
- (F) = Fall Only
- (S) = Spring Only