

School of Engineering and Engineering Technology
ELECTRICAL AND COMPUTER ENGINEERING, B.S.
MECHATRONICS CONCENTRATION
ECEN.MCHR/ECMC

2025-26

PROPOSED 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
_____	MEGR	2013	3	Statics ⁽¹⁾
_____	PHYS	2021	1	University Physics II Lab (Fall only)
_____	PHYS	2023	3	University Physics II (Fall only)

Fourth Semester - Spring				
15 Hours				
_____	EEGR	2163	3	Advanced Circuits (Spring only) ⁽¹⁾
_____	EEGR	3213	3	Digital Electronics
_____	ENGR	2400	0	Sophomore Design Seminar (Spring only)
_____	MATH	2003	3	Discrete Mathematics
_____	MATH	2023	3	Calculus III
_____	MEGR	2023	3	Dynamics ⁽¹⁾

Fifth Semester - Fall				
16 Hours				
_____	CHEM	1111	1	General Chemistry I Lab
_____	CHEM	1113	3	General Chemistry I
_____	EEGR	3243	3	Electronics and Lab (Fall only)
_____	EEGR	3523	3	Mechatronics (Fall only)
_____	MATH		3	Math Elective ⁽⁴⁾
_____			3	Civic Engagement Elective

Sixth Semester - Spring				
16 Hours				
_____	BIBL		3	Biblical Engagement Elective
_____	EEGR	3233	3	Intro to Microcontrollers (Spring only) ⁽²⁾
_____	ENGR	2704	4	Project Mgmt, Design & Entrepreneurship
_____	MCHR	4413	3	Robotics (Spring only)
_____	MEGR	3323	3	Mechanics of Materials ⁽¹⁾

Seventh Semester - Fall				
15 Hours				
_____	ENGR	4813	3	Senior Design I (Fall only)
_____	MATH	3403	3	Statistics
_____	MEGR	4443	3	Machine Design (Fall only)
_____			3	Humanities & Fine Arts Elective
_____			3	Technical Elective ⁽⁵⁾

Eighth Semester - Spring				
15 Hours				
_____	BUSI	3023	3	Entrepreneurship for Engineers ⁽³⁾
_____	EEGR	4283	3	Digital Signal Processing (Spring only)
_____	ENGR	4823	3	Senior Design II (Spring Only)
_____			3	Civic Engagement Elective
_____	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 2303 (recommended) or 4403

5: Any approved engineering course or COSC course

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