

School of Engineering and Engineering Technology
ENGINEERING, B.S.
BIOMEDICAL CONCENTRATION (BME)
2021-22
SUGGESTED COURSE SEQUENCE

First Semester - Fall				
17 Hours				
_____	BIBL	1033	3	Biblical Literature
_____	CHEM	1111	1	General Chemistry I Lab
_____	CHEM	1113	3	General Chemistry 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				
_____	COMM	1113	3	Intro to Speech Communication
_____	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)

Third Semester - Fall				
17 Hours				
_____	BIOL	2011	1	Human Anatomy & Physiol. I Lab (Fall only)
_____	BIOL	2013	3	Hum. Anatomy & Physiol. I (Fall only)
_____	EEGR	2053	3	Electric Circuits ⁽¹⁾
_____	ENGR	2704	4	Project Mgmt, Design & Entrepren
_____	MATH	2023	3	Calculus III
_____	MEGR	2013	3	Statics ⁽¹⁾

Fourth Semester - Spring				
17 Hours				
_____	BIOL	2021	1	Human Anatomy & Physiol. II Lab (Spring only)
_____	BIOL	2023	3	Hum. Anatomy & Physiol. II (Spring only)
_____	COSC	1303	3	Computer Science I
_____	EEGR	2051	1	Circuits & Measurements Lab ⁽¹⁾
_____	ENGR	2400	0	Sophomore Design Seminar (Spring only)
_____	MATH	2203	3	Differential Equations
_____	MEGR	2023	3	Dynamics ⁽¹⁾
_____	THEO	2043	3	Biblical Theology for the Christian Life

Fifth Semester - Fall				
15 Hours				
_____	BEGR	3133	3	Bioinstrumentation (Fall only)
_____	BEGR	3614	4	Biomechanics I (Fall only)
_____	BEGR	3811	1	Jr Biomedical Engr. Research I (Fall only)
_____	ENGR	2313	3	Materials Engineering ⁽²⁾
_____	PHYS	2021	1	University Physics II Lab (Fall only)
_____	PHYS	2023	3	University Physics II (Fall only)

Sixth Semester - Spring				
17 Hours				
_____	BEGR	3423	3	Biosignal Analysis (Spring only)
_____	BEGR	4213	3	Biological Control Systems (Spring only)
_____	BEGR	3822	2	Jr Biomedical Engr. Research II (Spring only)
_____	BUSI	3023	3	Entrepreneurship for Engineers ⁽³⁾
_____	MATH	3403	3	Statistics ⁽⁴⁾
_____			3	Engineering/Science/Math/CS Elective ⁽⁵⁾

Seventh Semester - Fall				
15 Hours				
_____	BIBL		3	Biblical Engagement Elective
_____	ENGR	4813	3	Senior Design I (Fall only)
_____			3	Civic Engagement Elective
_____			3	Engineering/Science/Math/CS Elective ⁽⁵⁾
_____			3	Engineering/Science/Math/CS Elective ⁽⁵⁾

Eighth Semester - Spring				
15 Hours				
_____	ENGR	4823	3	Senior Design II (Spring only)
_____	THEO		3	Theological Engagement Elective
_____			3	Civic Engagement Elective
_____			3	Engineering/Science/Math/CS Elective ⁽⁵⁾
_____			3	Ingenuity Elective

TOTAL HOURS 130

1: Minimum grade of 'C' required.

2: EEGR 3213 Digital Electronics may be substituted for ENGR 2313 (recommended for BIOELECTRONICS FOCUS)

3: ENGR 6223 Advanced Engineering Mathematics recommended if considering engineering graduate school; or Science elective recommended if considering medical school.

4: MATH 2303 Linear Algebra may be substituted for MATH 3403.

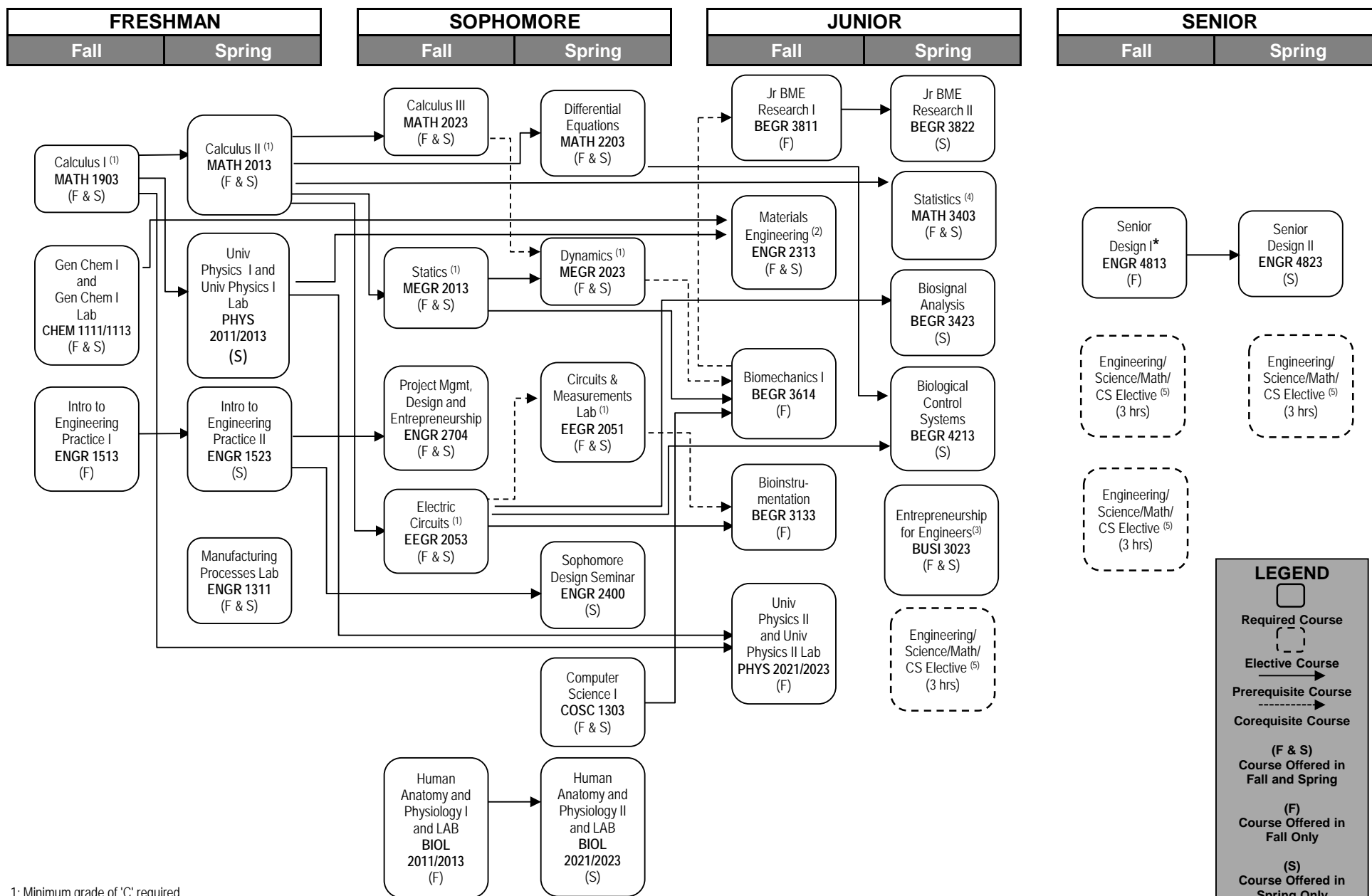
5: At least one 3000+ course with MATH 3403 or at least two 3000+ courses with MATH2303. Recommended courses are shown below.

5: Recommended Electives in Focus Areas

BIOMECHANICS FOCUS				
BEGR		3		BME Elective
MEGR	3323	3		Mechanics of Materials (spring only)
MEGR	4423	3		Mechanical Vibrations (fall only)
MEGR	4443	3		Machine Design (fall only)

BIOELECTRONICS FOCUS				
BEGR		3		BME Elective
EEGR	2163	3		Advanced Circuits (spring only)
EEGR	3233	3		Introduction to Microcontrollers (spring only)
EEGR	3243	3		Electronics and Lab (fall only)

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LEGEND

- Required Course
- Elective Course
- Prerequisite Course
- Corequisite Course
- (F & S)
Course Offered in Fall and Spring
- (F)
Course Offered in Fall Only
- (S)
Course Offered in Spring Only
- Odd = Course Offered in Odd Years Only
Even = Course Offered in Even Years Only