

School of Engineering and Engineering Technology
ENGINEERING, B.S.
BIOMEDICAL CONCENTRATION (BME)
2020-21
SUGGESTED COURSE SEQUENCE

First Semester - Fall			
17 Hours			
___	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⁾
___	BIBL	1033	3 Biblical Literature

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	2014	4 Human Anatomy & Physiology 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	2024	4 Human Anatomy & Physiology 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	2503	3 Intro to 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	3723	3 Biomechanics II (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			
___	ENGR	4813	3 Senior Design I (Fall only)
___	BIBL		3 Biblical Engagement Elective
___			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

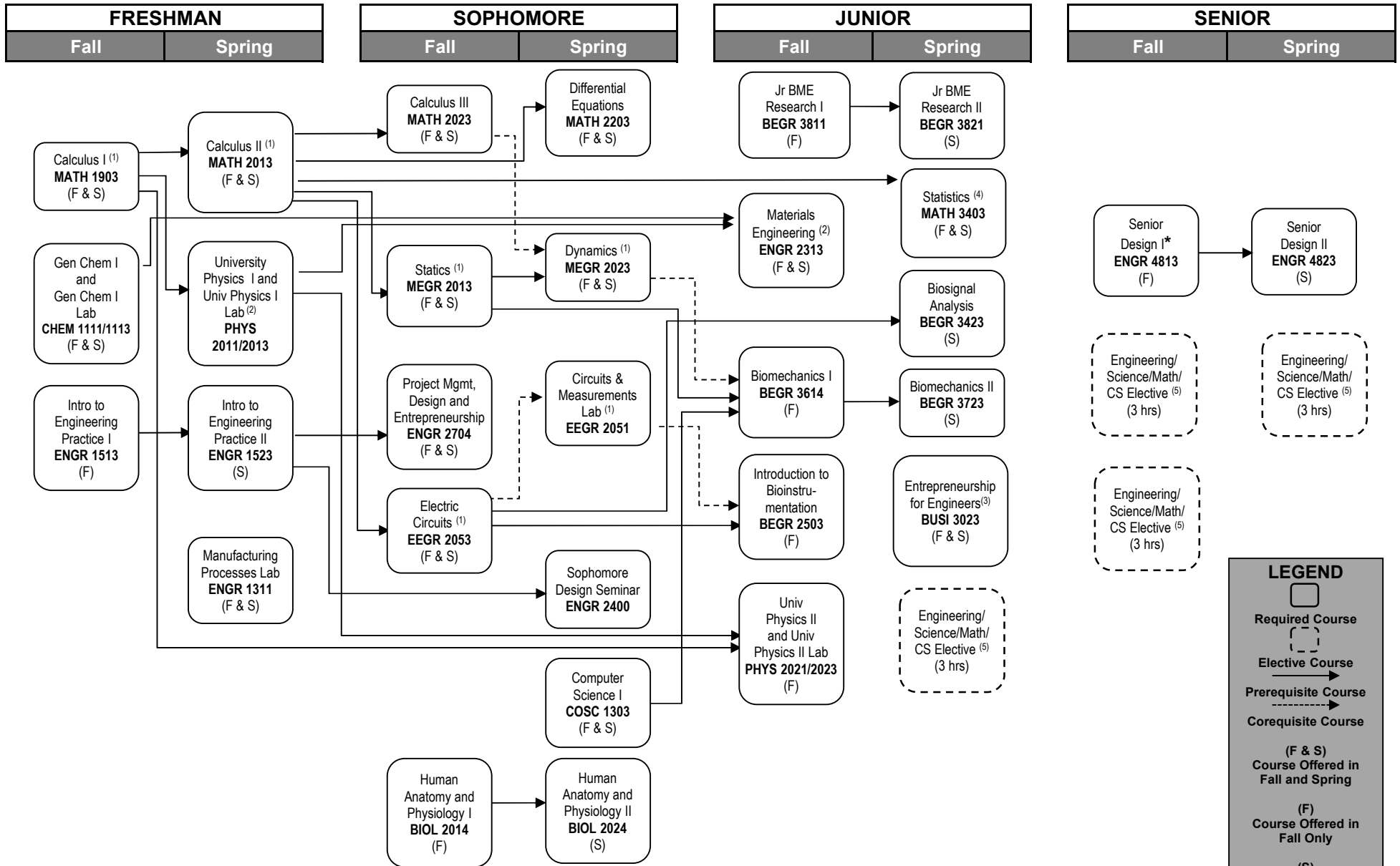
4: MATH 2303 Linear Algebra may be substituted for MATH 3403.

5: At least one course must be 3000 + level approved engineering course & Requires advisor approval. Recommended courses are shown below

5: Recommended Electives in Focus Areas

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

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



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: Requires advisor approval.

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

LEGEND

- Required Course (solid box)
- Elective Course (dashed box)
- Prerequisite Course (solid arrow)
- Corequisite Course (dashed arrow)
- (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