

Bachelor of Science Mechanical Engineering (BSME) - Optional Biomechanics Focus

2023-24
COURSE SEQUENCE

Note: The standard Mechanical Engineering course sequence, including the optional Aerospace Focus, are on a separate course sequence sheet.

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 Engr Practice I (Fall Only)
_____	LETU	1101	1 Cornerstones of Life and Learning
_____	MATH	1903	3 Calculus I ⁽¹⁾

Second Semester - Spring			
17			
_____	ENGL	1023	3 English Composition II
_____	ENGR	1311	1 Manufacturing Processes Lab
_____	ENGR	1523	3 Intro to Engr 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 Life ⁽²⁾

Third Semester - Fall			
17			
_____	COSC	1303	3 Computer Science I
_____	ENGR	2704	4 Proj. Mgmt, Design & Entrepren
_____	MATH	2023	3 Calculus III
_____	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			
17			
_____	COMM	1113	3 Introduction to Speech Communication
_____	ENGR	2053	3 Introduction to Electric Circuits
_____	ENGR	2400	0 Sophomore Design Seminar (Spring Only)
_____	MATH	2203	3 Differential Equations
_____	MEGR	2023	3 Dynamics ⁽¹⁾
_____	MEGR	2122	2 Mechanical Engineering Lab I
_____	MEGR	3323	3 Mechanics of Materials ⁽¹⁾

Fifth Semester - Fall			
16			
_____	BIBL	_____	3 Biblical Engagement Elective ⁽³⁾
_____	BIOL	2011	1 Human A & P I Lab (Fall Only)
_____	BIOL	2013	3 Human A & P I (Fall Only)
_____	MATH	3403	3 Statistics
_____	MEGR	3513	3 Fluid Mechanics (Fall Only)
_____	MEGR	3713	3 Thermodynamics

Sixth Semester - Spring			
15			
_____	MATH	2303	3 Linear Algebra
_____	ENGR	2013	3 Materials Engineering
_____	MEGR	3133	3 Mechanical Engineering Lab II (Spring Only)
_____	MEGR	4723	3 Heat Transfer (Spring Only)
_____			3 Civic Engagement Elective ⁽⁴⁾

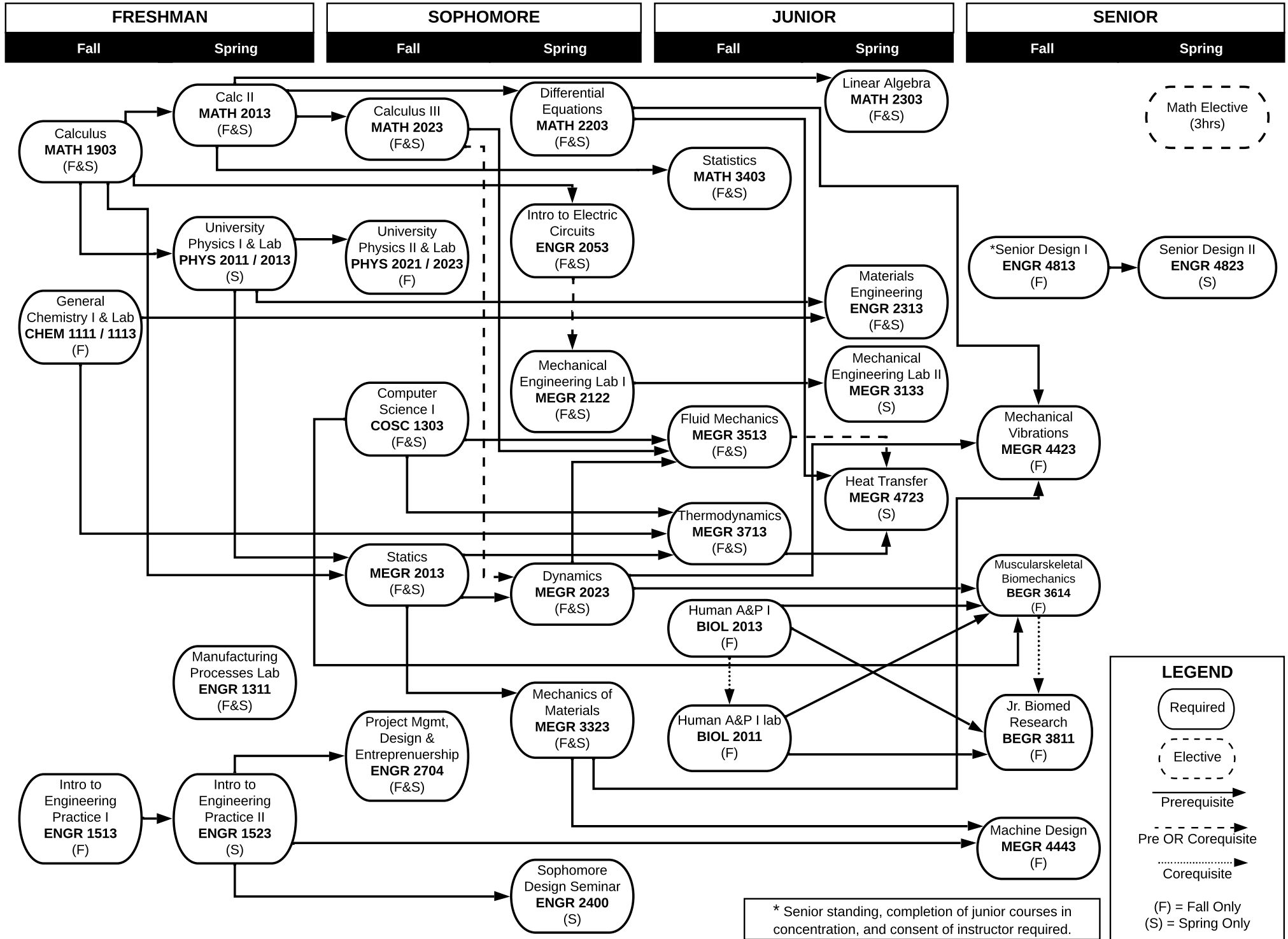
Seventh Semester - Fall			
14			
_____	ENGR	4813	3 Senior Design I ⁽⁶⁾
_____	BEGR	3614	4 Muscular Skeletal Biomechanics (Fall Only)
_____	BEGR	3811	1 Jr. Biomedical Engr. Research (Fall Only)
_____	MEGR	4423	3 Mechanical Vibrations (Fall Only) ⁽⁷⁾
_____	MEGR	4443	3 Machine Design (Fall Only)

Eighth Semester - Spring			
15			
_____	ENGR	4823	3 Senior Design II ⁽⁸⁾
_____	MATH	_____	3 Math Elective ⁽⁴⁾
_____	THEO	_____	3 Theological Engagement Elective ⁽⁹⁾
_____			3 Ingenuity Elective ⁽⁴⁾
_____			3 Civic Engagement Elective ⁽⁴⁾

TOTAL HOURS 128

- 1: Minimum grade of C is required.
- 2: BIBL1033 is a prerequisite
- 3: Any 2000+ BIBL course
- 4: See approved list available in Engineering Office
- 5: Approved 3000+ Engineering, Business, Science, Math course, approved 2000+ Computer Science course (3cr), BIOL 2011 or 2013 (See approved electives list available in SEET Office)

- 6: BSME senior standing (last full year at LETU) is a pre-requisite
- 7: EEGR 3523 Mechatronics may be substituted for MEGR 4423 Mechanical Vibrations - pre-requisite is EEGR 3213 Digital Elec.
- 8: Senior Design II must be the second half of the same project as Senior Design I (sequential semesters)
- 9: Any 2000+ level BIBL course, +A30:M57CCLT 3103, CCLT 3203, CCLT 4103, CMIN 3303, CMIN 3403, THEO 3063, THEO 3103, THEO 3133, THEO 3203, THEO 4941-4993 Special Topics classes



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