

School of Engineering and Engineering Technology
ENGINEERING, B.S.
MATERIALS JOINING CONCENTRATION (MJE)
2023-24
SUGGESTED COURSE SEQUENCE

First Semester - Fall			
	17	Hours	
___ BIBL	1033	3	Biblical Literature
___ 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⁾
___ CHEM	1111	1	General Chemistry I Lab
___ CHEM	1113	3	General Chemistry I

Second Semester - Spring			
	17	Hours	
___ COSC	1303	3	Computer Science 1
___ ENGL	1023	3	English Composition II
___ ENGR	1523	3	Intro to Engineering Practice II (Spring only)
___ ENGR	1311	1	Manufacturing Processes Lab
___ 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	
___ ENGR	2313	3	Materials Engineering
___ MATH	2303	3	Linear Algebra
___ MEGR	2013	3	Statics ⁽¹⁾
___ PHYS	2021	1	University Physics II Lab (Fall only)
___ PHYS	2023	3	University Physics II (Fall only)
___ MJET	2021	1	Materials Joining Fundamentals Lab (Fall only)
___ MJET	2023	3	Materials Joining Fundamentals (Fall only)

Fourth Semester - Spring			
	16	Hours	
___ THEO	2043	3	Biblical Theology for the Christian Life
___ ENGR	2400	0	Sophomore Design Seminar (Spring only)
___ MEGR	3323	3	Mechanics of Materials (Spring only)
___ MATH	2023	3	Calculus III
___ MJEG	3103	3	Joining Methods 1 (Spring only) ⁽¹⁾
___ EEGR	2051	1	Circuits & Measurements Lab ⁽¹⁾
___ EEGR	2053	3	Electric Circuits ⁽¹⁾

Fifth Semester - Fall			
	16	Hours	
___ COMM	1113	3	Intro to Speech Communication
___ MJEG	3213	3	Thermo, Kinetics, and Structure of Mat'ls (Fall only)
___ MJEG	3201	1	Mat'ls Testing & Characterization Lab (Fall only)
___ MJEG	4313	3	Nondestructive Evaluation (Fall only)
___ MATH	2203	3	Differential Equations
___ MEGR	2023	3	Dynamics ⁽¹⁾

Sixth Semester - Spring			
	16	Hours	
___ MJEG	3223	3	Welding Metallurgy 1 (Spring only) ⁽¹⁾
___ MJEG	3013	3	Design Topics in Welding Engineering (Spring only)
___ MATH	3403	3	Statistics
___ BIBL		3	Biblical Engagement Elective
___ ENGR	2704	4	Project Mgmt, Design & Entrepreneurship

Seventh Semester - Fall			
	16	Hours	
___ ENGR	4813	3	Senior Design I (Fall only)
___ MJEG	4014	4	Engr Analysis of Welding (Fall only)
___ MJEG	3XX3	3	Welding Engineering Elective
___		3	Ingenuity Elective
___		3	Civic Engagement Elective

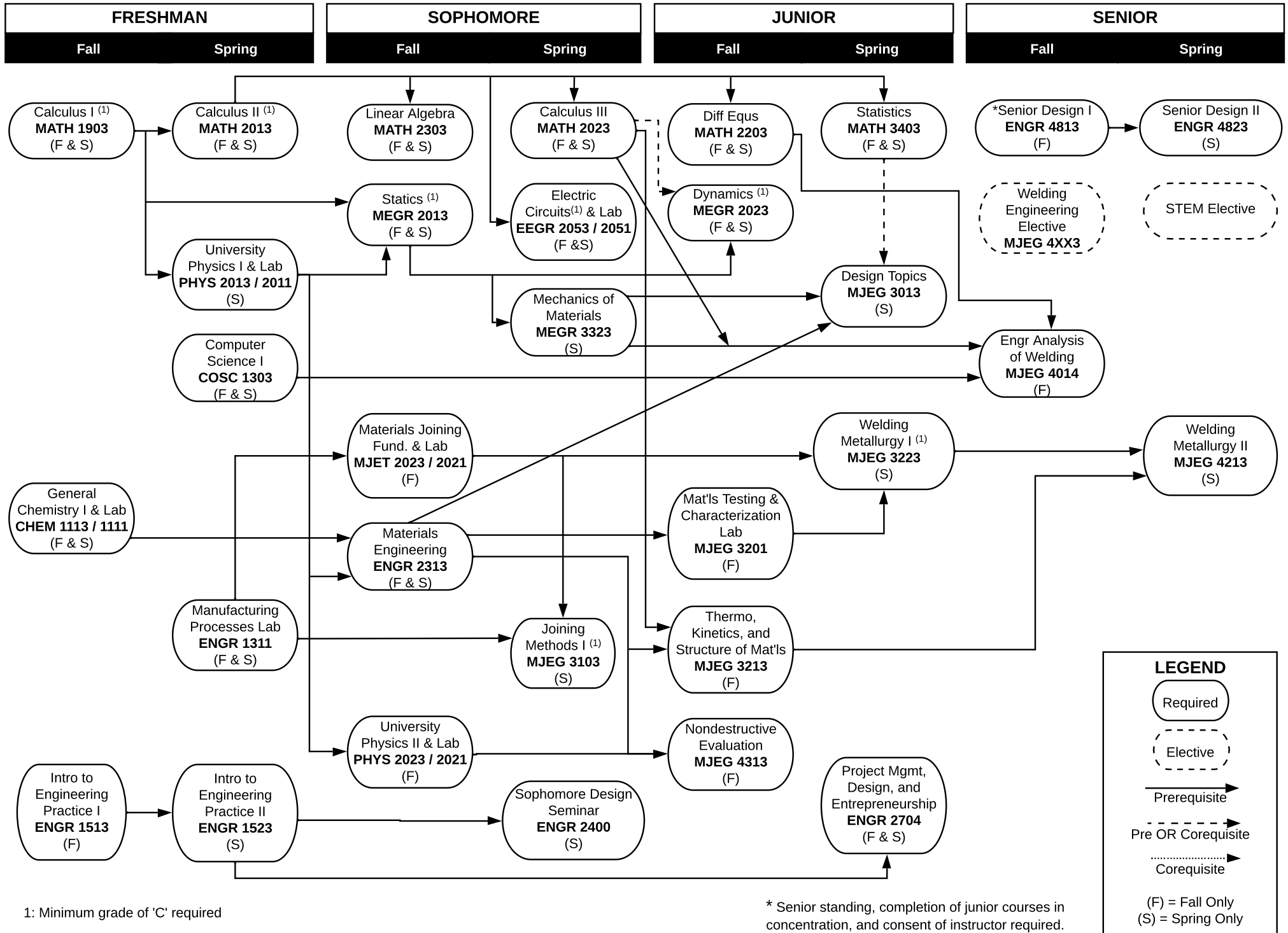
Eighth Semester - Spring			
	15	Hours	
___ ENGR	4823	3	Senior Design II (Spring only)
___ MJEG	4213	3	Welding Metallurgy 2 (Spring only)
___		3	STEM Elective
___ THEO		3	Theological Engagement Elective
___		3	Civic Engagement Elective

TOTAL HOURS 130

1: Minimum grade for 'C' required.

Approved STEM Electives (Undergraduate)			
A STEM elective includes all Technical Electives (below) plus additional 3000+ Math, Science, Business and 2000+ Computer Science.			
<i>Example approved 3000+ technical engineering electives</i>			
CVGR	3313	3	Structural Analysis
CVGR	3224	3	Design of Steel Structures
MEGR	4443	3	Machine Design
MEGR	4423	3	Vibrations
EEGR	4913	3	ST: Electrical Power Systems
ENGR	4951	3	ST: Junior Design I & 2
ENGR	6223	3	Advanced Engineering Mathematics
ENGR	6513	3	Design/Analysis of Engineering Experiments

Approved Welding Engineering Electives			
MJEG	4023	3	Welding Procedure Devel and QC (Fall only, Even)
MJEG	4353	3	Automation in Welding and Mfg (Fall only, Odd)
<i>*The following 4000 level MJE courses are available for parallel U/G Credit</i>			
MJEG	5023	3	Welding Procedure Devel and QC (Fall only, Even)
MJEG	5213	3	Welding Metallurgy II (Spring only)
MJEG	5313	3	Nondestructive Evaluation (Fall only)
MJEG	5353	3	Automation in Welding and Mfg (Fall only, Odd)



1: Minimum grade of 'C' required

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