School of Engineering and Engineering Technology

ENGINEERING, B.S.

MATERIALS JOINING CONCENTRATION (MJE)

2024-25

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)
	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		
	COSC 1303	3	Computer Science 1
	ENGL 1023	3	English Composition II
	ENGR 1523	3	Intro to Engineering Practice II (Spring)
	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		
	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	Mat Joining Fundamentals Lab (Fall)
	MJET 2023	3	Mat Joining Fundamentals (Fall only)

Fourth Semester - Spring			
	16		
	THEO 2043	3	Biblical Theology for the Christian Life
	ENGR 2400	0	Sophomore Design Seminar (Spring)
	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		
	COMM 1113	3	Intro to Speech Communication
	MJEG 3213	3	Thermo Kinetics & Strctr of Mat'ls (Fall)
	MJEG 3201	1	Mat'ls Testing & Char Lab (Fall only)
	MJEG 4313	3	Nondestructive Evaluation (Fall only)
	MATH 2203	3	Differential Equations
	MEGR 2023	3	Dynamics [1]

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

Seventh Semester - Fall			
	15		
	ENGR 4813	3	Senior Design I (Fall only)
	MJEG 4723	3	Heat Transfer for Welding (Fall only)
	MJEG 3XX3	3	Welding Engineering Elective
		3	Humanities & Fine Arts Elective
		3	Civic Engagement Elective

Eighth Semester - Spring			
	15		
	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 129

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.

Example approved 3000+ technical engineering electives

	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 Engr Experiments

Approved Welding Engineering Electives

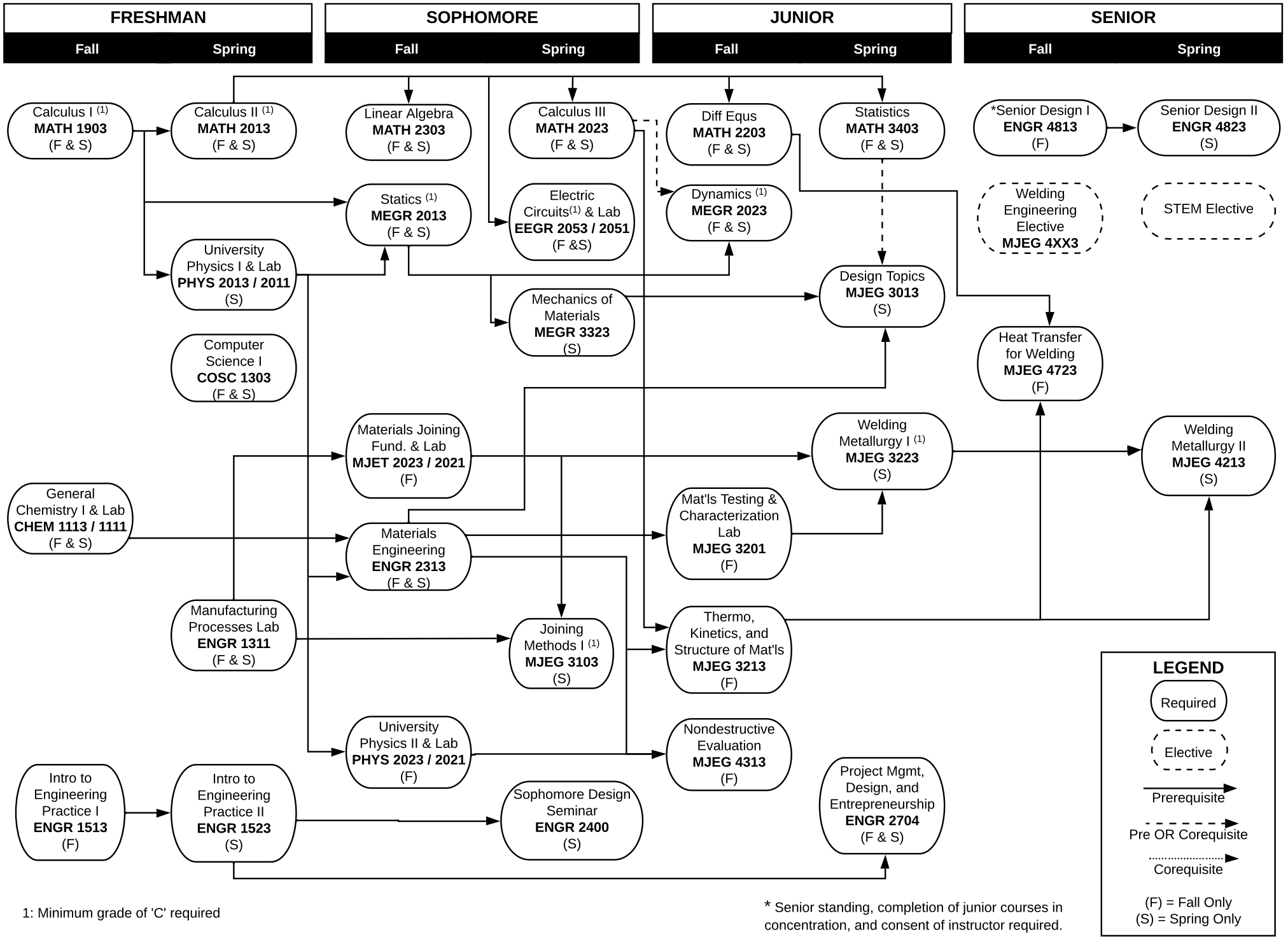
	MJEG 4023	3	Welding Procedure Devel & QC (Fall,Even)
	MJEG 4353	3	Automation in Welding & Mfg (Fall, Odd)

**The following 4000 level MJE courses available for parallel U/G Credit*

	MJEG 5023	3	Welding Procedure Devel & QC (Fall,Even)
	MJEG 5213	3	Welding Metallurgy II (Spring only)
	MJEG 5313	3	Nondestructive Evaluation (Fall only)
	MJEG 5353	3	Automation in Welding & Mfg (Fall, Odd)

Rev 5/16/2024

B.S. Engineering — Technical Course Sequence - Materials Joining Concentration — 2024-2025



1: Minimum grade of 'C' required

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