Department of Mechanical and Aerospace Engineering Suggested Program of Study Mechanical Engineering: 2025 - 2026

First Year

Fall (12 credit hours) ENC 1101: English Comp I - COMM 1 EGS 1006C: Intro to the Engr Prof Pick One - CHS 1440: Principals of Chemistry or CHM 2045C: Chemistry Fundamentals I - NAT SCI (4)

MAC 2311C: Calculus I - MATH 1 (PR: MAC 1114C, MAC 1140C)

Second Year

Fall (13 credit hours)

EGN 3321: Engineering Analysis - Dynamics (3) EGM 3601: Solid Mechanics (PR: MAC 2313, EGN 3310)

PHY 2049C (or PHY 2049 & PHY 2049L): General Physics Using Calc II – GEP FLEX 2 (PR: PHY 2048C (or PHY 2048 & PHY 2048L), MAC 2312)

MAP 2302: Differential Equations (PR: MAC 2313)

EGN 3365: Struct & Prop of Aerospace Matls. (3) Cultural Foundation – HUM 2 (PR: CHS 1440 or CHM 2045C, MAC 2312)

Third Year

Fall (15 credit hours)

	EML 3933: Career/Academic Advising I	(0)	EML 4142: Heat 7
	(PR: MAP 2302)		(PR: EML 3701, EM
	EML 3034C: Modeling Methods in MAE	(3)	EML 4312: Feedb
	(PR: MAC 2313, MAP 2302, PHY 2048C (or PHY 20	948	(PR: EGN 3321, EG.
	& PHY2048L), COP 3223C; CR: EGN 3321, EML 39	933)	
	EML 3500: Machine Components	(3)	STA 3032: Probab
	(PR: EGM 3601)		(PR: MAC 2312)
	EML 3303C: Mechanical Engr Measurements	(3)	Option Course (Ch
	(PR: EGN 3343)		(See List Below)
	Approved Technical Elective	(3)	Approved Technic
	Social Foundation – SOC SCI 1	(3)	
F	ourth Year		

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Fall (12 credit hours)		Spring (12 credit hours)		
EML 4931: Career/Academic Advising II (PR: EML 3933, Department Consent)	(0)	EML 4502C: Mechanical Design II (PR: EML 4931, EML 4501C)	(3)	Mus of P
EML 4501C: Mechanical Design I (PR: EGN 3373, EML 3303C, EML 3701, EML 4142 EML 4312 and Department Consent; CR: EML 4931	(3) 2,)	Approved Technical Elective Laboratory Course (Choose 1 of 2) (See List Below)	(3) (3)	PHY PHY Cou
Approved Technical Elective Option Course (Choose 1 of 5, <i>See List Below</i>) Social Foundation – SOC SCI 2	(3) (3) (3)	Approved Technical Elective	(3)	prer with rega

Spring (15 credit hours)

- (3) ENC 1102: English Comp II COMM 2
- (1) EGN 1007C: Engr Concepts & Methods
- PHY 2048C (or PHY 2048 & PHY 2048L): General Physics Using Calc I – NAT SCI 2 (PR: MAC 2311C)
- (4) MAC 2312: Calculus II MATH 2 (PR: MAC 2311C) SPC 1603C: Fundamentals of Technical Presentations - GEP FLEX 1

Spring (12 credit hours)

- (PR: MAC 2311C, MAC 2312, MAC 2313, PHY 2048C (or PHY 2048 & PHY 2048L), EGN 3310)
- (4) EGN 3373: Principles of Electrical Engr
 - (PR: PHY 2049C (or PHY 2049 & PHY 2049L); CR: MAP 2302)
- (3) EGN 3343: Thermodynamics (PR: MAC 2313, EGN 3310)
- (3)

Spring (15 credit hours)

Ι	(0)	EML 4142: Heat Transfer	(3)
E PHY 20 EML 3	(3) 048 933)	EML 4312: Feedback Control and Dynamics (<i>PR: EGN 3321, EGM 3601, EML 3034C, EGN 3373</i>	(3) 8)
	(3)	STA 3032 : Probability & Statistics for Engr (<i>PR: MAC 2312</i>)	(3)
ements	(3)	Option Course (Choose 1 of 5) (See List Below)	(3)
	(3) (3)	Approved Technical Elective	(3)
		Spring (12 credit hours)	
II	(0)	EML 4502C : Mechanical Design II (<i>PR: EML 4931, EML 4501C</i>)	(3)
	(3)	Approved Technical Elective	(3)
IL 4142 IL 4931))	Laboratory Course (Choose 1 of 2) (See List Below)	(3)
	(3)	Approved Technical Elective	(3)
elow)	(3)		

Summer (10 credit hours)

- (3) Historical Foundation HUM 1
- (3) (1) EGN 3310: Engr Analysis Statics (3)
- (PR: MAC 2311C, PHY 2048C (or PHY 2048 & (4) PHY 2048L), CR: MAC 2312)
- (4) MAC 2313: Calculus III (4)(PR: MAC 2312)
- (3)

(3)

Summer (6 credit hours)

- (3) EML 3701: Fluid Mechanics (3)(PR: MAC 2313, MAP 2302, PHY 2048C (or PHY 2048 & PHY 2048L), EGN 3321, EGN 3343)
- (3) COP 3223C: Intro to Programming w/C (3)
 - (PR: COP 2500C or appropriate score in the CS Placement Test)

Summer

Consider Internship Make-up missed courses Consider next courses, incl. Senior Design

IMPORTANT NOTICES:
A "C" (2.0) or better is required in all major courses. All prerequisites require a "C" (2.0) or better.
EML 4501C and EML 4502C must be taken in consecutive terms (FA- SP, SP-SU, or SU-FA).
Must complete Lecture and Lab components of Physics courses with a "C" (2.0) or better: PHY 2048C or (PHY 2048 & PHY 2048L) PHY 2049C or (PHY 2049 & PHY 2049L)

es can be taken ahead of schedule if all uisites have been met. Please meet our advisor if you have any questions ing your schedule. Do not drop any before discussing with your advisor.

ALL Mechanical Students Will Select 2 of 6 Courses (6 Credit Hours):

EML 4143: Heat Transfer II (PR: EML 4142) Fall Only	(3)	EML 3101: Thermodynamics of Mech Systems (<i>PR: EGN 3343</i>) Spring Only	(3)
EML 4220: Vibrations (PR: EGN 3321, EGM 3601, EML 3034C, EGN3373)	(3) Fall Only	EML 4504: Design & Analysis of Mach Comp II (PR: EML 3500) Spring Only	(3)
EML 4703: Fluid Mechanics II (PR: EML 3701) Fall Only	(3)	EML 3262 : Kinematics of Mechanisms (PR: MAP 2302, EGN 3321)	(3)

ALL Mechanical Students Will Select 1 of 2 Laboratory Courses (3 Credit Hours):					
EML 4301C: Mechanical Systems Lab (<i>PR: EML 3303C, EGM 3601; CR: EML 4312</i>)	(3)	EML 4306C: Energy Systems Lab (<i>PR: EML 3303C; CR: EML 4142</i>)	(3)		