

MECHANICAL ENGINEERING TECHNOLOGY (2023-2024)

Suggested 8-Semester Plan (Updated 11 Apr 2023)

1st Year	Session	Course	Course Title	GRADE	SH	Pre-Requisite or Co-Requisite
1st Semester (includes triad)	ALL	ENGL 1301	Writing and Rhetoric I (Core Curriculum Req.)		3	n/a
	ALL	HIST 1301	US History to 1865 (Core Curriculum Req.)		3	n/a
	F	UNIV 1101	First Year Seminar		1	n/a
	ALL	MATH 2413	Calculus I (Mathematics Core Curriculum Course)		4	Prereq: MATH 1316 or MATH 2312 or minimum score of 640 in 'SAT MATH SECTION' or minimum score of 27 in 'ACT1 Math'
	ALL	CHEM 1411	General Chemistry I (Natural Science Core)		4	Co-req: SMTE 0093
	ALL	ENGR 1201	Introduction to Engineering		2	Prereq: MATH 1314 - College Algebra or equivalent academic preparation
				TOTAL HRS		17
2nd Semester	ALL	ENGL 1302	Writing and Rhetoric II (Core Curriculum Req.)		3	Prereq: ENGL 1301 Writing and Rhetoric I
	ALL	HIST 1302	US History since 1865 (Core Curriculum Req.)		3	n/a
	S	UNIV 1102	First Year Seminar		1	n/a
	ALL	MATH 2414	Calculus II		4	Prereq: A grade of C or better in MATH 2413 Calculus I
	ALL	ENGR 1312	Engineering Graphics I		3	Prereq: MATH 1314 - College Algebra
	ALL	PHYS 2425	University Physics I (Natural Science Core)		4	Prereq: MATH 2413 Calculus I; co-req SMTE 0095
			TOTAL HRS		18	
2nd Year	Session	Course	Course Title		SH	Pre-Requisite or Co-Requisite
1st Semester	ALL	ENGR 2325	Statics		3	Prereq: PHYS 2425 University Physics I; pre-req or co-req: MATH 2414 - Calculus II
	ALL	POLS 2305	US Govt & Politics (Core Curriculum Course)		3	n/a
	ALL	PHYS 2426	University Physics II		4	Prereq: PHYS 2425 University Physics I and MATH 2414 Calculus II; co-req SMTE 0095
	ALL	COSC 1330	Programming for Scientists, Engineers and Math		3	n/a
	ALL	Creative Arts Core	Choose one ARTS 1303, COMM 1305, MUSI 1306, 1307, THEA 1310, 1351 (Core Curriculum Req.)		3	n/a
			TOTAL HRS		16	
2nd Semester	ALL	ENGR 2326	Dynamics		3	Prereq: ENGR 2325 - Statics
	ALL	ENGR 3316*	Thermodynamics		3	Prereq: PHYS 2425 University Physics I and MATH 2414 Calculus II
	ALL	ENGR 3322*	Materials Science		3	Prereq: CHEM 1411 General Chemistry I & PHYS 2425 University Physics I
	ALL	ENTC 2414	Circuit Analysis I		4	Prereq: MATH 2413 Calculus I & PHYS 2426 University Physics II; co-req: SMTE 0099
			TOTAL HRS		13	
3rd Year	Session	Course	Course Title		SH	Pre-Requisite or Co-Requisite
1st Semester	ALL	ENTC 3306* or ENGR 3315*	Fluid Mechanics		3	Prereq for ENTC 3306: ENGR 2326 Dynamics; prereq for ENGR 3315: ENGR 2326 - Dynamics and MATH 2415 - Calculus III and MATH 3315 - Differential Equations
	ALL	ENTC 4446*	Control Systems I		4	Prereq: ENTC 2414 Circuit Analysis I
	ALL	ENTC 3308* or ENGR 3320*	Strength of Materials		3	ENGR 2325 Statics & ENGR 3322 Materials Science
	ALL	POLS 2306	State & Local Government (Core Curriculum Course)		3	n/a
	S	ENTC 3220*	Thermal/Fluids Lab		2	Prereq or co-req: (ENTC 3306 Fluid Mechanics or ENGR 3315 Fluid Mechanics) and ENGR 3316 Thermodynamics; co-req SMTE 0099
				TOTAL HRS		15
2nd Semester	ALL	ENTC 3302* or ENGR 3350*	Manufacturing Processes		3	Prereq: ENGR 1312 Engineering Graphics I & ENGR 3322 Materials Science
	ALL	ENTC 4320*	Heat Transfer		3	Prereq: (ENTC 3306 or ENGR 3315 Fluid Mechanics) & ENGR 3316 Thermodynamics
	S	ENTC 3455*	Solid Modeling Applications		4	Prereq: ENTC 3308 or ENGR 3320 Strength of Materials
	ALL	ENTC 4330*	Design of Machine Elements		3	Prereq: ENTC 3308 or ENGR 3320 Strength of Materials
	ALL	ENTC 4210*	Solid Mechanics Lab		2	Pre-req or co-req: ENTC 4330 Solid Mechanics; co-req SMTE 0099
			TOTAL HRS		15	
4th Year	Session	Course	Course Title		SH	Pre-Requisite or Co-Requisite
1st Semester	ALL	ENTC 4415*	Project Justification and Management		4	Prereq: senior Standing; co-req SMTE 0099
	ALL	ENTC*	Technical Elective		3	Varies
	ALL	ENTC*	Technical Elective		3	Varies
	ALL	Upper Level Math, Science or Engineering Course*	Elective		3	Varies
	ALL	ENTC 4360*	Mechanical Systems Design		3	Prereq: ENTC 4330 Design of Machine Elements
			TOTAL HRS		16	
2nd Semester	ALL	ENTC 4350*	Capstone Project		3	Prereq: ENTC 4415 Project Justification and Management; co-req: SMTE 0099
	ALL	ENTC*	Technical Elective		3	Varies
	ALL	Language, Philosophy & Culture core	Choose one ENGL 2322, 2333, 2334 or 2335 or SPAN 3307, 3308 or 3309 or PHIL 1301 or 2306 (Core Curriculum Req.)		3	n/a
	ALL	SOCIAL SCIENCE CORE	SOCI 1301 or PSYC 2301 or ECON 2301 or 2302 (Core Curriculum Req.)		3	n/a
			TOTAL HRS		12	
	(*Upper division credit)	FOREIGN LANGUAGE				Met if had 2 years in HS or 2 college level courses
		TOTAL HOURS FOR DEGREE PLAN			122	(120 if no UNIV required)
		TOTAL UPPER DIVISION HOURS REQUIRED			55	