

4-Year Academic Plan: Mechanical Engineering

The following is a sample outline demonstrating 4-year completion of this bachelor's degree. Each student's reality will vary slightly, as this plan does not include transfer work, Advanced Placement (AP), or concurrent enrollment credits. Math and English placement will be based on the student's ACT/SAT scores. PLEASE NOTE: The following plan assumes students are prepared to take the Math course listed. If prerequisites are required, additional semesters may be required to complete degree.

This is a **GUIDE ONLY**. Please meet with your academic advisor and consult DegreeWorks for specifics.

1st Year Fall (16 credits)					1st Year Spring (14 credits)				
ENGL	1010	Intro. to Academic Writing	3	F/S/Su	ENGL	2010	Intermediate Writing	3	F/S/Su
XXXX	XXXX	GE Knowledge Area	3	F/S/Su	INFO	1010	Information Literacy	1	F/S/Su
MATH	1210	Calculus I	4	F/S/Su	MATH	1220	Calculus II	4	F/S
CHEM	1210/15	General Chemistry I	4/1	F/S/Su	PHYS	2210/15	Physics for Science & Engineers I	4/1	F/S
ENGR	1000	Engineering Success	1	F	ENGR	1050	Intro to Engineering Design	1	F/S
2nd Year Fall (15 credits)					2nd Year Spring (14 credits)				
ENGR	1030	Comp-Aided Design SolidWorks	3	F/S	MATH	2210	Calculus III	4	F/S
MATH	2250	Linear Alg & Differential Equations	4	F	ENGR	2030	Dynamics	3	F/S
PHYS	2220/25	Physics for Science & Engineers II	4/1	F/S	ENGR	2140/45	Strength of Materials/Lab	3/1	F/S
ENGR	2010	Statics	3	F/S	ENGR	2170	Programming for Engineers	3	F/S
3rd Year Fall (16 credits)					3rd Year Spring (17 credits)				
XXXX	XXXX	American Institutions GE	3	F/S/Su	XXXX	XXXX	GE Knowledge Area	3	F/S/Su
ENGR	3000	Thermodynamics	3	F	ENGR	2250/55	Electrical Circuits/Lab	3/1	F/S
ENGR	3010	Material Science	3	F	ENGR	3030	Project Management	3	S
ENGR	3700	Machine Design	3	F	ENGR	3050/55	Fluid Mechanics	3/1	3
		☼ Technical Elective (only need 1)	3-4	F	COMM ENGL	4240 or 3120	Technical Writing Grant & Technical Writing	3	F/S/Su S
4th Year Fall (13 credits)					4th Year Spring (13 credits)				
XXXX	XXXX	GE Knowledge Area	3	F/S/Su	XXXX	XXXX	GE Knowledge Area	3	F/S/Su
ENGR	4010/15	Heat Transfer/Lab	3/1	F	ENGR	4060/65	Manufacturing/Lab	2/1	S
ENGR	4025	Engr Capstone Design Lab I	3	F	ENGR	4085	Engr Capstone Design Lab II	3	S
ENGR	4030/35	Electronics/Lab	3/1	F	ENGR	4710/15	Instrumentation & Msmnt/Lab	3/1	S
ENGR	4300	Vibrations	3	F			☼ Technical Elective (only need 1)	3-4	S

Other Notes:

- ▶ * Can choose between ENGL 3120 and COMM 4240

All Engineering majors must pass or attempt the FE exam at least twice in order to have their degree posted

Color Key:

General Education Courses (green)

Major-required courses that also fulfill GE requirement (purple)

Major Courses (black)

Electives/minor/etc. (red)

☼ TECHNICAL ELECTIVES TO CHOOSE FROM

BIOL 2320/25 Human Anatomy/Lab

ENGR 4000/05 Mechatronics/Lab

ENGR 4050 Structural Analysis

ENGR 4600 Electromagnetics

MATH 3250 Complex Variables

MATH 3600 Numerical Analysis

MATH 3700 Probability & Statistics

MATH 3800 Partial Differential Equations

PHYS 1040/45 Elementary Astronomy/Lab

PHYS 3310 Quantum Physics I

PHYS 3320 Quantum Physics II