

DEGREE TYPE
BACHELOR OF SCIENCE
MECHANICAL
ENGINEERING

The undergraduate Mechanical Engineering program provides a comprehensive foundation in mechanics, materials science, heat transfer, thermodynamics, fluid dynamics, and manufacturing processes. Through engaging coursework, hands-on laboratory experiences, design projects, and the use of modern engineering tools, students develop the ability to analyze, design, and optimize mechanical systems. As one of the most versatile and in-demand engineering disciplines, mechanical engineering leads to career opportunities in industries such as automotive, aerospace, energy, robotics, manufacturing, and biomedical engineering. Graduates leave the program with strong problem-solving skills, technical expertise, and practical experience that can be applied across a wide range of sectors. For those who enjoy tackling complex challenges, blending creativity with technical knowledge, and transforming ideas into reality, mechanical engineering offers a dynamic and impactful career path.

*College of
Science
Engineering
&
Technology*



College of Science, Engineering, and Technology
Mechanical Engineering

FRESHMAN YEAR FALL 1ST SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 241	Calculus I	3	GEC		
ENG 104	Composition I	3	GEC		
UNIV 100	University Success	2	UR		
CHEM 141 & CHML 141	General Chemistry I & Lab	4	GEC		
	Humanities & Fine Arts Option	3	GEC		
MEC	Intro to Mechanical Engineering	1	DPR		
	TOTAL CREDIT HOURS	16	TERM GPA:		

Comments:

FRESHMAN YEAR SPRING 2nd SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 242	Calculus II	3	DPR		
ENG 105	Composition II	3	GEC		
CIV 201	Engineering Graphics	2	DPR		
PHY 211 & PHYL 211	General Physics & Lab	4	GEC		
	Social & Behavioral Science Option	3	GEC		
	TOTAL CREDIT HOURS	15	TERM GPA:		

Comments:

SOPHOMORE YEAR FALL 1ST SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 243	Calculus III	3	DPR		
PHY 212 & PHYL 212	General Physics II & Lab	4	DPR		
CIV 222	Engineering Mechanics I	3	DPR		
CSC 118	Computer Science I	3	DPR		
	Pathway Option	3	PATH		
	TOTAL CREDIT HOURS	16	TERM GPA:		

Comments:

SOPHOMORE YEAR SPRING 2ND SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 244	Calculus IV	3	DPR		
CIV 240	Strength of Materials	3	DPR		
CIV 223	Engineering Mechanics II	3	DPR		
ECE 252	Engineering Analysis	3	DPR		
UNIV 200	Civic Engagement	1	UR		
	Pathway Option	3	PATH		
	TOTAL CREDIT HOURS	16	TERM GPA:		

Comments:

*Technical Elective: Student may select courses offered by the Department, such as **Mechatronics and Computational Methods for Mechanical Engineering**, or

JUNIOR YEAR FALL 1ST SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 307	Probability & Statistics in Engineering	3	DPR		
CIV 330 & CIV 330 Lab	Fluid Mechanics & Lab	4	DPR		
ECE 220 & ECEL 220	Circuit Theory & Lab	4	DPR		
MEC 315	Introduction to Engineering Materials	3	DPR		
MEC 320	Thermodynamics	3	DPR		
TOTAL CREDIT HOURS		17	TERM GPA:		

Comments:

JUNIOR YEAR SPRING 2ND SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 368	Ordinary Differential Equations	3	DPR		
MEC 340	Machine Design	3	DPR		
MEC 336	Introduction to Manufacturing	3	DPR		
CIV 355	Engineering Economy	3	DPR		
	Pathway Option	3	PATH		
TOTAL CREDIT HOURS		15	TERM GPA:		

Comments:

SENIOR YEAR FALL 1ST SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
ECE 330/ECEL 330	Electronics & Lab	4	DPR		
MEC 420	Heat Transfer	3	DPR		
MEC 426	Numerical Analysis for Engineering	3	DPR		
	Humanities & Fine Arts Option	3	GEC		
	Social & Behavioral Science Option	3	GEC		
TOTAL CREDIT HOURS		16	TERM GPA:		

Comments:

SENIOR YEAR FALL 2ND SEMESTER

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MEC 490	Senior Design Capstone	3	DPR		
CIV 461	Professional & Ethical Issues in Engineering	1	DPR		
MEC 448	Introduction to Microsystems	3	DPR		
MEC Elective	Technical Elective	3	DPE		
	Humanities & Fine Arts Option	3	GEC		
TOTAL CREDIT HOURS		13	TERM GPA:		

On-line Graduation Clearance (TO BE COMPLETED DURING THE GRADUATING SEMESTER ONLY)

TOTAL HOURS: 124 REQUIRED

Candidates that transfer 12 or more hours of college credit are exempt from UNIV 100: University Success; however, the student must take 2 hours of general electives to replace UNIV 100.

Student Signature: _____ Advisor Signature: _____