

Bachelor of Science in Mechanical Engineering for Full Time Students

Four Year Study Plan as of Academic Year 2025/2026

FRESHMAN YEAR (35 Credit Hours)

FIRST “FALL” SEMESTER						SECOND “SPRING” SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lec	Lab					Lec	Lab	
ISLM 1221	Islamic Cultures, Values & Societies	2	2	0		PHED 1112	Healthy Behaviors and management	1	1	0	PHED 1111
PHED 1111	Active Living Lifestyle	1	1	0	FRFC/FRPW/PR EE 0061 or its equivalent	COMM 1322	Written Communication	3	3	0	COMM 1321
COMM 1321	Oral Communication	3	3	0	IELTS/APTIS	UNIV 1212	Critical Thinking & Problem Solving	2	2	0	UNIV 1211
UNIV 1211	Professional Development and Competencies	2	2	0	FRFC/FRPW/PR EE 0061 or its equivalent	MATH 1423	Calculus II	4	4	1	MATH 1422
MATH 1422	Calculus I	4	4	1	PRPM 0022	CHEM 1421	Chemistry for Engineers I	4	3	3	PRPM 0022
PHYS 1421	Physics for Engineers I	4	3	3	PRPM 0022	GEEN 2311	Engineering Mechanics I: Statics	3	3	0	PHYS 1421
GEEN 1211	Intro to Engineering	2	2	0	PRPM 0022						
Total		18	17	4		Total		17	16	4	

SOPHOMORE YEAR (35 Credit Hours)

FIRST "FALL" SEMESTER						SECOND "SPRING" SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab					Lecture	Lab	
ASSE 2111	Learning Outcome Assessment I	1	1	0	<i>Sophomore Standing</i>	MEEN 2311	Materials Engineering	3	3	0	GEEN 2311 CHEM 1421
COMM 2321	Technical & Professional Communication	3	3	0	COMM 1322	GEEN 2313	Thermodynamics I	3	3	0	MATH 1423 CHEM 1421
UNIV 1213	Leadership And Teamwork	2	2	0	UNIV 1212	MATH 2332	Ordinary Differential Equations	3	3	0	MATH 1324
MATH 1324	Calculus III	3	3	1	MATH 1423	MEEN 2313	Solid Mechanics	3	3	1	GEEN 2311
PHYS 1422	Physics for Engineers II	4	3	3	PHYS 1421 MATH 1422	UNIV 1221	Generative AI Prompt Engineering Basics	2	2	0	UNIV 1211
GEEN 2211	Engineering Computing	2	1	3	MATH 1423 GEEN 1211						
MEEN 2312	Engineering Mechanics II: Dynamics	3	3	0	GEEN 2311 MATH 1423	COMM 2322	Writing & Research	3	3	0	COMM 2321
Total		18	16	7		Total		17	17	1	

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JUNIOR YEAR (34 Credit Hours)

FIRST "FALL" SEMESTER						SECOND "SPRING" SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab					Lecture	Lab	
MEEN 3394	Computer Aided Design / Manufacturing	3	3	0	MEEN 2313	GEEN 3314	Electric Circuits and Electronics	3	2	3	<i>PHYS 1422 & Junior Standing</i>
GEEN 3311	Intro to Fluid Mechanics	3	3	0	GEEN 2313	ASSE 3211	Learning Outcome Assessment II	2	2	0	<i>ASSE 2111 & Junior Standing</i>
MEEN 3311	Manufacturing Processes	3	3	0	MEEN 2311	MEEN 3432	Computational Methods	4	4	1	GEEN 2211 MATH 2332
MEEN 3101	Machine Shop Practice and Safety	1	0	3	MEEN 2313	MEEN 3333	Heat Transfer	3	3	0	GEEN 3311
MEEN 3322	Thermodynamics II	3	3	0	GEEN 2313	MEEN 3395	Mechanical Vibrations	3	3	1	MEEN 3391
MEEN 3391	Design Of Mechanisms	3	3	0	MEEN 2312						
UNIV 2221	Future Skills	2	2	0	UNIV 1221	MEEN 3111	Thermofluids & Energy Lab	1	0	3	GEEN 3311
Total		18	17	3		Total		16	14	8	

SUMMER OF JUNIOR YEAR (3 Credit Hours)

Course Number	Course Title	Credit Hours		Pre-requisite
MEEN 3301	Internship	3	8 weeks (320 hours) full time	End of Junior Year (90 student credit hours)

SENIOR YEAR (32 Credit Hours)

FIRST “FALL” SEMESTER						SECOND “SPRING” SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab					Lecture	Lab	
MEEN 4392	Feedback Control	3	2	3	MEEN 3395 MEEN 3432 GEEN 3314	UNIV 2222	Systems Thinking for Future Innovations	2	2	0	UNIV 2221
MEEN 4393	Machine Design	3	3	0	MEEN 3394 MEEN3311	MEEN 4311	Principles of HVAC	3	3	1	MEEN 3322 MEEN 3333
MEEN 4396	Mechanical Engineering Senior Design I	3	3	0	MEEN 3333 MEEN 3395	MEEN 4397	Mechanical Engineering Senior Design II	3	3	0	GEEN 4311 MEEN 4396
GEEN 4311	Engineering Economy	3	3	0	MEEN 3311	Social Science	Social Science Elective	3	3	0	Select one from list
MEEN 4322	Power Generation	3	3	1	MEEN 3322 MEEN 3333	MEEN XXXX	ME Tech. Elective II	3	3	0	Select from list.
MEEN XXXX	ME Tech. Elective I	3	3	0	Select from list.						
Total		18	17	4		Total		14	14	1	

TOTAL DEGREE CREDIT HOURS = 139

SOCIAL SCIENCE ELECTIVES

Course Number	Course Title	Credit Hours	Pre-requisites
BSTW 1311	Behavioral Sciences in 3D World	3	None

GEGR 1311	World Regional Geography	3	None
FREN 1311	Introduction to French Language	3	None
FURS 1311	Introduction to Futures Skills	3	None
FUTR 1311	Introduction to Futures Studies	3	None
HIST 1311	World Civilizations	3	None
PSYC 1311	Introduction to Psychology	3	None
SERV 1311	Introduction to Service Learning and Volunteering	3	None
SPAN 1311	Introduction to Spanish Language	3	None
SUST 1311	Introduction to Sustainability	3	None
SYST 1311	Introduction to Systems Thinking	3	None

MECHANICAL ENGINEERING TECHNICAL ELECTIVES			
Course Number	Course Title	Credit Hours	Pre-requisites
MEEN 4312	Fluid Mechanics	3	GEEN 3311: Introduction to Fluid Mechanics MEEN 3322: Thermodynamics II
MEEN 4315	Principles of Building Energy Analysis	3	MEEN 3322: Thermodynamics II MEEN 3333: Heat Transfer
MEEN 4331	Internal Combustion Engines	3	MEEN 3322: Thermodynamics II MEEN 3333: Heat Transfer
MEEN 4332	Turbomachinery	3	MEEN 3322: Thermodynamics II MEEN 3333: Heat Transfer
MEEN 4341	Corrosion Engineering	3	MEEN 3322: Thermodynamics II MEEN 2311: Materials Engineering MEEN 3333: Heat Transfer
MEEN 4344	Materials in Design	3	MEEN 3311 Manufacturing Processes MEEN 4393 Machine Design
MEEN 4351	Intermediate Dynamics	3	MEEN 3395: Mechanical Vibrations
MEEN 4394	Advanced Control Systems	3	MEEN 4392: Feedback Control

NOTES:

- Completion of PRPM 0022 Pre-Calculus is required before entry into Mechanical Engineering.
- This Program of Study applies to ONLY full time students. Minimum of 12 credit hours constitutes full time status.
- Student GPA determines maximum semester course load as per department advisement criteria.
- MEEN major courses may be offered only in the semester shown on this plan.
- MEEN major summer course offerings are not guaranteed.
- Internship experience may not be combined with any courses.

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