Bachelor of Science in Mechanical Engineering for Full Time Students
Four Year Study Plan as of Academic Year 2024/2025

FRESHMAN YEAR (35 Credit Hours)

FIRST "FALL" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial	
ALIS 1211	Introduction to Islamic culture	2	2	0	
PHED 1111	Active Living Lifestyle	1	1	0	
COMM 1311	Written Communication	3	3	0	
UNIV 1211	Professional Development and Competencies	2	2	0	
MATH 1422	Calculus I	4	4	1	*PRPM 0022*
PHYS 1421	Physics for Engineers I	4	3	3	*PRPM 0022*
GEEN 1211	Intro to Engineering	2	2	0	*PRPM 0022*
Total		**18**	**17**	**4**	

SECOND "SPRING" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial	
PHED 1112	Healthy Behaviors and management	1	1	0	*PHED 1111*
COMM 1312	Writing and Research	3	3	0	*COMM 1311*
UNIV 1212	Critical Thinking & Problem Solving	2	2	0	*UNIV 1211*
MATH 1423	Calculus II	4	4	1	*MATH 1422*
CHEM 1421	Chemistry for Engineers I	4	3	3	*PRPM 0022*
GEEN 2311	Engineering Mechanics I: Statics	3	3	0	*PHYS 1421*
Total		**17**	**16**	**4**	

SOPHOMORE YEAR (35 Credit Hours)

FIRST "FALL" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab/ Tutorial	
ASSE 2111	Learning Outcome Assessment I	1	1	0	*Sophomore Level*
COMM 2311	Oral Communication	3	3	0	*COMM 1312*
UNIV 1213	Leadership And Teamwork	2	2	0	*UNIV 1212*
MATH 1324	Calculus III	3	3	1	*MATH 1423*
PHYS 1422	Physics for Engineers II	4	3	3	*PHYS 1421 MATH 1422*
GEEN 2211	Engineering Computing	2	1	3	*MATH 1423 GEEN 1211*
MEEN 2312	Engineering Mechanics II: Dynamics	3	3	0	*GEEN 2311*
Total		**18**	**16**	**7**	

SECOND "SPRING" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Studio / Tutorial	
MEEN 2311	Materials Engineering	3	3	0	*GEEN 2311 CHEM 1421*
GEEN 2313	Thermodynamics I	3	3	0	*MATH 1423 CHEM 1421*
MATH 2332	Ordinary Differential Equations	3	3	1	*MATH 1324*
MEEN 2313	Solid Mechanics	3	2	3	*MEEN 2312*
ALIS 1212	The Social System in Islam	2	2	0	*ALIS 1211*
COMM 2312	Technical & Professional Communication	3	3	0	*COMM 2311*
Total		**17**	**16**	**4**	

Bachelor of Science in Mechanical Engineering for Full Time Students
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JUNIOR YEAR (34 Credit Hours)

FIRST "FALL" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab/ Tutorial	
MEEN 3394	Computer Aided Design / Manufacturing	3	2	3	*MEEN 2313*
GEEN 3311	Intro to Fluid Mechanics	3	3	0	*GEEN 2313*
MEEN 3311	Manufacturing Processes	3	3	0	*MEEN 2311*
MEEN 3101	Machine Shop Practice and Safety	1	0	3	*MEEN 2313*
MEEN 3322	Thermodynamics II	3	3	0	*GEEN 2313*
MEEN 3391	Design Of Mechanisms	3	3	0	*MEEN 2312*
ALIS 2211	Ethics in Islam	2	2	0	*ALIS 1211*
Total		**18**	**16**	**6**	

SECOND "SPRING" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Studio / Tutorial	
GEEN 3314	Electric Circuits and Electronics	3	2	3	*PHYS 1422 & Junior Level Standing (≥60 Student Credit Hours)*
ASSE 3211	Learning Outcome Assessment II	2	2	0	*ASSE 2111 & Junior Level*
MEEN 3432	Computational Methods	4	3	3	*GEEN 2211 MATH 2332*
MEEN 3333	Heat Transfer	3	3	0	*GEEN 3311*
MEEN 3395	Mechanical Vibrations	3	2	3	*MEEN 3391*
MEEN 3111	Thermofluids & Energy Lab	1	0	3	*GEEN 3311*
Total		**16**	**12**	**12**	

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) and department approval

SENIOR YEAR (32 Credit Hours)

FIRST "FALL" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial	
MEEN 4392	Feedback Control	3	2	3	*MEEN 3395 MEEN 3432 GEEN 3314*
MEEN 4393	Machine Design	3	3	0	*MEEN 3394 MEEN3311*
MEEN 4396	Mechanical Engineering Senior Design I	3	2	3	*MEEN 3301 MEEN 3333*
GEEN 4311	Engineering Economy	3	3	0	*MEEN 3301*
MEEN 4322	Power Generation	3	2	3	*MEEN 3322 MEEN 3333*
MEEN XXXX	ME Tech. Elective I	3	3	0	*Select from list.*
Total		**18**	**15**	**9**	

SECOND "SPRING" SEMESTER

Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial	
ALIS 2212	The Biography of Prophet Mohammad	2	2	0	*ALIS 2211*
MEEN 4311	Principles of HVAC	3	2	3	*MEEN 3322 MEEN 3333*
MEEN 4397	Mechanical Engineering Senior Design II	3	2	3	*GEEN 4311 MEEN 4396*
Social Science	Social Science Elective	3	3	0	*Select one from list*
MEEN XXXX	ME Tech. Elective II	3	3	0	*Select from list.*
Total		**14**	**12**	**6**	

TOTAL DEGREE CREDIT HOURS = 139

SOCIAL SCIENCE ELECTIVES			
Course Number	**Course Title**	**Credit Hours**	**Pre-requisites**
FREN 1311	Introduction to French Language	3	None
FURS 1311	Introduction to Futures Skills	3	None
FUTR 1311	Introduction to Futures Studies	3	None
GEGR 1311	World Regional Geography	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
BSTW 1311	Behavioral Sciences in 3D World*	3	None
DANT 1311	Digital Anthropology*	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