

Bachelor of Engineering in Mechanical Engineering (BEMENG)

Major Electives

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
	Elective	3		
	Elective	3		
Total		9		

Core Requirements

Code	Title	Credits	Prerequisites	Corequisites
CHEM200	General Chemistry	3	ENGL101 - CHEM160	
CSCI250	Introduction to Programming	3		CSCI250L
CSCI250L	Introduction to Programming Lab	1		CSCI250
EENG250	Electric Circuits I	3	PHYS161 - PHYS160 - MATH161 - MATH160 - ENGL051	MATH210
EENG370	Industrial Electronics	3	EENG250	EENG370L
EENG370L	Industrial Electronics Lab	1		EENG370
ENGG300	Engineering Economics	3	ENGL201 - MATH225	MATH220
MATH210	Calculus II	3	MATH161 - MATH160	
MATH220	Calculus III	3	MATH210	
MATH225	Linear Algebra with Applications	3	MATH160 - ENGL051 - MATH161	
MATH270	Ordinary Differential Equations	3	MATH225 - MATH210	
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210 - ENGL201	
MATH375	Numerical Methods for Scientists & Engineers	3	MATH270 - MATH225	
PHYS220	Physics for Engineers	3	PHYS161 - ENGL101 - PHYS160	MATH210
Total		38		

Major Requirements

Code	Title	Credits	Prerequisites	Corequisites
EENG435	Control Systems	3	PHYS220 - MENG250 - MATH270 - MATH225 - MATH310 - EENG370	
EENG492	Electric Machines For Mechanical Engineers	3	PHYS220 - EENG370	MENG430 - EENG492L
EENG492L	Electric Machines For Mechanical Engineers Lab	1		EENG492
ENGG499	Practical Experience	4		
MENG225	Engineering Drawing & CAD	3		
MENG250	Statics	3	MATH161 - MATH160 - PHYS161 - PHYS160 - ENGL051	MATH210
MENG300	Dynamics	3	ENGL051 - ENGL101 - MENG250	PHYS220 - MATH220
MENG310	Engineering Material Science	3	MENG250	MENG225 - CHEM200

MENG320	Engineering Thermodynamics I	3	MENG250	CHEM200 - MENG320L
MENG320L	Engineering Thermodynamics I Lab	1		CHEM200 - MENG320
MENG360	Mechanics of Materials I	3	MENG310	MENG360L
MENG360L	Mechanics Of Materials I Lab	1	MENG310	MENG360
MENG370	Fluid Mechanics I	3	MENG300	MATH375 - MENG370L
MENG370L	Fluid Mechanics I Lab	1	MENG300	MENG370
MENG410	Mechanics of Materials II	3	MENG360	
MENG420	Heat Transfer	3	MENG370 - MENG320	MENG420L
MENG420L	Heat Transfer Lab	1	MENG320	MENG420
MENG430	Mechanical Vibrations I	3	MENG300 - MATH270	MENG410 - MATH310 - MENG430L
MENG430L	Mechanical Vibrations I Lab	1	CSCI250	MENG430
MENG450	Mechanical Systems I	3	MENG300	MENG430 - MENG450L
MENG450L	Mechanical Systems I Lab	1	MENG300 - MENG225	MENG450
MENG470	Internal Combustion Engines	3	MENG420	
MENG501L	Mechanical Engineering Workshop	1	MENG450L	
MENG520	Fluid Mechanics II	3	MENG470	
MENG525	Engineering Thermodynamics II	3	MENG420	
MENG550	Mechanical Systems II	3	MENG450	
MENG560	Machine Design I	3	MENG410	
MENG596	Capstone Project	6	MENG550 - MENG615 - MENG601 - ENGL251 - MENG610	
MENG601	Hydraulic and Pneumatic Systems	3	MENG470	MENG610 - MENG525 - MENG520
MENG610	Machine Design II	3	MENG560	MENG501L
MENG615	Refrigeration & Air conditioning	3	MENG470	MENG610 - MENG520 - MENG525 - MENG615L
MENG615L	Refrigeration & Air conditioning Lab.	1		MENG615
Total		82		

General Education Requirements

Code	Title	Credits	Prerequisites	Corequisites
ARAB200	Arabic Language and Literature	3		
CULT200	Introduction to Arab - Islamic Civilization	3		
ENGG450	Engineering Ethics and Professional Practice	3	ENGG300 - ENGL251	
ENGL201	Composition and Research Skills	3	ENGL151	
ENGL251	Communication Skills	3	ENGL201	
Total		15		

General Education Electives

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
	Elective	3		
Total		6		

Major Elective Courses

Code	Title	Credits	Prerequisites	Corequisites
EENG585	Introduction to Mechatronics	3	MENG250 - MENG601 - EENG492 - EENG435	
MENG555	Introduction To Finite Element Analysis	3		MENG560
MENG580	Advanced Heat Transfer	3	MENG520	
MENG585	Solar Energy & Thermal Systems	3	MENG525 - MENG520	

MENG595	Turbomachinery	3	MENG525 - MENG520	
MENG615	Refrigeration & Air conditioning	3	MENG470	MENG610 - MENG520 - MENG525 - MENG615L
MENG615L	Refrigeration & Air conditioning Lab.	1		MENG615
MENG655	Power Plant Engineering	3	MENG525 - MENG520	