

## Eight-Semester Curriculum Plan for BS in Mechanical Engineering

YEAR	First Semester				Second Semester			
	Course Code	Course Title	Credits	Pre requisite	Course Code	Course Title	Credits	Pre requisite
FIRST YEAR	CHM 111	General Chemistry	3	None	ENL 102	Communication Skills	3	None
	MAT 111	Calculus I	3	None	MAT 112	Calculus II	3	MAT 111
	PHY 111	Engineering Physics I Co-req - MAT 111	3	none	MAT 113	Linear Algebra and Complex Variables	3	None
	SAT 103	Computer Application and Technology	3	None	ENL 101	English Composition	3	None
	SAT 102	Fundamentals of Statistics	3	None	PHY 112	Engineering Physics II	3	PHY 111
	SAT 105	General Science	3	None	ENL 103	Technical Writing	3	None
		<b>Total Credits</b>	<b>18</b>			<b>Total Credits</b>	<b>18</b>	
SECOND YEAR	MEC 210L	Engineering Drawing and Workshop	2	None	MEC 222	Dynamics	3	MEC 220 + MAT 214
	MEC 220	Statics	3	PHY 111	MEC 232	Mechanics of Materials	3	MEC 220
	SAH 103	Reasoning and Critical Thinking	3	None	MAT 216	Introduction to MATLAB	1	MAT 113
	MEC 230	Materials Science	3	CHM 111	ENL 104	Research and Learning Skills	3	None
	MEC 240	Thermodynamics	3	PHY 111	MEC 242	Fluid Mechanics	3	MEC 220 + MAT 112
	MAT 214	Differential Equations	3	MAT 112	ELE 220	Electric Circuits and Devices	3	PHY 112
		<b>Total Credits</b>	<b>17</b>			<b>Total Credits</b>	<b>16</b>	
THIRD YEAR	MEC 310	Engineering Measurements	3	MEC 222, MEC 242, ELE 220	MEC 312	Mechanical Vibrations	3	MEC 222, MEC 340
	MEC 320	Mechanical Design I	3	MEC 230, MEC 232, MEC 210L	MEC 322	Mechanical Design II	3	MEC 320
	MEC 342	Heat Transfer (CO req- MEC 344L)	3	MEC 240, MEC 242	MEC 330	Manufacturing Processes (Co req: MEC 332L)	3	MEC 230, MEC 232, MEC 210L
	MEC 344L	Thermo fluids Laboratory Co req: MEC 342)	2		MEC 332L	Materials Science and Manufacturing laboratory (Co req: MEC 330)	2	
	MEC 340	Numerical Methods in Engineering (Co req: MAT 318)	3	MAT 216	MAT 317	Probability Theory	3	SAT 102
	MAT 318	Mathematical methods	3	MAT 214	MEC 346	Energy Systems	3	MEC 342
		<b>Total Credits</b>	<b>17</b>			<b>Total Credits</b>	<b>17</b>	
FOURTH YEAR	MEC 410	System Dynamics and Control	3	MEC 310, MEC 312	MEC 440	Refrigeration and Air Conditioning	3	MEC 346
	MEC 441	Advanced Fluid Mechanics	3	MEC 340 MEC 344L	MEC 442	Turbo machinery	3	MEC 342
	MEC 490	Design Project	3	MEC 322, MEC 342	MEC 4XX	Major Elective	3	
	MEC 4XX	Major Elective	3		MEC 4XX	Major Elective	3	
	MEC 4XX	Major Elective	3		SAH 101	UAE Society	3	None
	MEC 396	Internship	3	≥80 Credits	SAH 102	Islamic Studies	3	None
		<b>Total Credits</b>	<b>18</b>			<b>Total Credits</b>	<b>18</b>	