

## Study Plan for Mechanical Power Engineering– spring 2021-2022 (Old student system)

### Mechanical Engineering (Power) - Second Year – Semester 4

No.	Course Code	Course Title	Cr. H	Pre-requisite	Contact Hours/Week			
					L	P	T	Total
1	BE 104	Linear Algebra	3	BE 102	2	1	2	5
2	BE 204	Engineering Mathematics (4)	3	BE 103	2	1	2	5
3	ME 212	Mechanics of Machinery	3	BE 113	2	1	1	4
4	ME 210	Computer Aided Mechanical Drawing	2	ME 203	1	3	1	5
5	EE 208	Fundamentals of Electrical for mech. engineering	3	BE 102, BE 122	2	1	2	5
6	ME 271	Manufacturing Processes (1)	3	ME 170	2	2	1	5
7	UGA 03	Arabic language	2	NONE	2	0	0	2
<b>Total</b>			19		31			

### Mechanical Engineering (Power) - Third Year – Semester 6

No.	Course Code	Course Title	Cr. H	Pre-requisite	Contact Hours/Week			
					L	P	T	Total
1	BE 209	Complex Variables	3	BE 204	3	0	1	4
2	ME 215	Mechanical Design (2)	3	ME 213	2	0	2	4
3	ME 221	Automatic Control	3	ME 214	2	1	2	5
4	ME 231	Heat Transfer (1)	3	ME 230	2	1	1	4
5	ME 252	Engineering Fluid Mechanics	3	ME 251	2	1	2	5
<b>Total</b>			15		22			

### Mechanical Engineering (Power) - Fourth Year – Semester 8

No.	Course Code	Course Title	Cr. H	Pre-requisite	Contact Hours/Week			
					L	P	T	Total
1	ME 256	Power generation by fluids	3	ME 252	3	0	2	5
2	ME 201	Fundamentals of Combustion Engineering	3	ME 230	3	1	1	5
3	ME 253	Fluid mechanics (2)	3	ME 251	3	1	2	6
4	ME 333	<i>Elective Course T.(4.42)</i> Renewable Energy and Storage Systems	3	ME 230	3	1	1	5
5	ME 240	Refrigeration and Air Conditioning (1)	3	ME 232	3	1	1	5
6	HU 113	Technical Report Writing and Presentation Skills	2	None	2	2	0	4
<b>Total</b>			17		30			

### Mechanical Engineering (Power) - Fifth Year – Semester 10

No.	Course Code	Course Title	Cr. H	Pre-requisite	Contact Hours/Week			
					L	P	T	Total
1	ME 332	Thermal Power Plants Operation and Management (Elective 3)	3	ME 230	2	0	2	4
2	HU 135	Sales, Marketing and Communication Techniques	2	None	2	0	1	3
3	ME 341	Controls and Safety of Thermal Systems	2	ME 221	2	1	0	3
4	UC01	Communication Skills (2)	2	None	2	0	0	2
5	ME 350	Pumps Technology	2	ME 252	2	0	1	3
7	ME 400-2	Graduation Project (2)	4	ME 400-1	3	3	0	6
<b>Total</b>			15		21			

**MECHANICAL ENGINEERING DEPARTMENT**  
**INDUSTRIAL & MANUFACTURING ENGINEERING**  
**PROGRAM (IME)**

**STUDY PLAN Spring 2024/2025**

**4<sup>th</sup> Year (Semester-8)**

Code	Course Title	Credit	Prerequisites	No. of Hours per Week		
				Lecture	Tutorial	Practical
EE 219!!	Electrical Measurements for Industrial Systems	3	EE 208!!	2	2	1
EM 327	Numerically Controlled Machines	3	EM 221	2	1	1
EM 360	Production Planning & Scheduling	3	None	2	2	0
EM 362	Quality Improvement for Industry	3	EM170	2	2	0
EM 373	Nontraditional Manufacturing Processes	3	EM 370	2	2	1
HU 113!!	Technical Report Writing & Presentation Skills	2	None	1	0	2
		<b>17</b>		<b>11</b>	<b>9</b>	<b>5</b>

**5<sup>th</sup>Year (Semester-10)**

Code	Course Title	Credit	Prerequisites	No. of Hours per Week		
				Lecture	Tutorial	Practical
EM 371	Manufacturing Process Machine Design	3	EM 272	2	2	0
UCS02	Communication Skills (2)	1	None	1	0	0
EM 400-2	Graduation Project (2)	4	EM 400-1	3	0	3
EM 364	Systems Simulation	3	EM 262	2	2	1
EM 263	Introduction to Engineering Management	3	None	2	2	0
HU 132!!	Accounting & Costs for Engineers	2	None	2	1	0
UGA 03	Arabic	2	None	2	0	0
		<b>18</b>		<b>14</b>	<b>7</b>	<b>4</b>

**MECHANICAL ENGINEERING DEPARTMENT**  
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**PROGRAM (IME)**

**STUDY PLAN FALL 2024/2025**

**4<sup>th</sup> Year (Semester-7)**

Code	Course Title	Credit	Prerequisites	No. of Hours per Week		
				Lecture	Tutorial	Practical
EM 372	Metrology & Instrumentation	3	EM 170	2	0	3
UGE 03	English 3	2	UGE 02	1	0	2
EM 370	Analysis of Metal Cutting Processes	3	EM 272	2	1	1
EM 262	Operations Research	3	None	2	2	0
EE 386	Electrical Machines Technology for Industrial Systems	4	EE 208	3	2	1
HU 133!!	Engineering Statistics	2	None	2	1	0
		<b>17</b>		<b>12</b>	<b>6</b>	<b>7</b>

**5<sup>th</sup>Year (Semester-9)**

Code	Course Title	Credit	Prerequisites	No. of Hours per Week		
				Lecture	Tutorial	Practical
EM 363	Human factors Engineering	3	EM 360	2	1	1
EM 366	Maintenance Planning & Management	3	EM 362	2	1	1
EM 321	Robotics	3	EM 221	2	1	1
EM 400-1	Graduation Project (1)	4	None	3	0	3
EM 361	Facilities Design	3	EM 360	2	3	0
EM 374	Manufacturing Systems	3	EM 272	2	2	0
		<b>19</b>		<b>13</b>	<b>8</b>	<b>6</b>

# Study Plan for Mechanical Power Engineering

## Fall 2024-2025 Power campus

### Mechanical Engineering (Power) - Second Year – Semester 3

Course code	Course title	Credit hours	Pre-requisites
UGE 01	English (1)	2 (2-0-0)	–
EBS 201	Engineering Mathematics (3)	3 (2-2-1)	EBS 102
EME 111	Mechanical Drawing	2 (1-0-2)	EBS 141
EME 112	Mechanics of Materials	3 (2-1-2)	EBS 111
EME 231	Thermodynamics (1)	3 (2-2-1)	EBS 121
EME 182	Engineering Materials	3 (2-2-1)	EME 081
<b>Total semester credit hours</b>		<b>16</b>	

### Mechanical Engineering (Power) - Third Year – Semester 5

Course code	Course title	Credit hours	Pre-requisites
EB 207	Numerical Analysis using MATLAB	4(3-1-2)	EB 102
EM 213	Mechanical Design (1)	3(2-2-1)	EM 211
EM 214	Mechanical Vibrations	3 (2-1-1)	EM 212
EM 230	Thermodynamics (1)	3 (2-2-0)	EB 121
EM 272	Manufacturing Processes (2)	3 (2-1-1)	EM 170
EM 261	Eng. Economy & Cost Analysis	2(2-1-0)	None
<b>Total semester credit hours</b>		<b>18</b>	

### Mechanical Engineering (Power) - Fourth Year – Semester 7

Course code	Course title	Credit hours	Pre-requisites
EM 220	Mechanical Measurement and Sensors	3 (2-2-1)	EB 122
EM 232	Thermodynamics (2)	3 (2-2-1)	EM 230
EM 234	Heat exchangers	3 (2-1-1)	EM 231
EE 369!!	Electrical Power for Mech. Engineers	4 (3-2-1)	EE 208!!
EM 233	Heat transfer (2)	3 (2-1-1)	EM 231
UGE 03	English (3)	2 (2-0-2)	UGE 02
<b>Total semester credit hours</b>		<b>18</b>	

### Mechanical Engineering (Power) - Fifth Year – Semester 9

Course code	Course title	Credit hours	Pre-requisites
EM 353	Fluid Power systems	3 (2-2-0)	EM 252
EM 343	Air Conditioning Systems	3 (2-2-0)	EM 240
EM 331	Thermal Power Plants Equipment	3 (2-1-1)	ME 230
EM 254	Compressible Flow	2 (2-1-0)	EM 251
EM 400-1	Graduation Project (1)	0 credit	Department Approval
HU 132	Accounting and Costs for Engineers	2(2-1-0)	None
UGA 03	Arabic language	2(2-0-0)	None
<b>Total semester credit hours</b>		<b>19 Billing credits 15 Registration credits</b>	