

Year-1, Semester-1

Course No.	Course Name	Contact hours	Credit hours
PHY 117	Structure of Matter, Electricity and Magnetism and Modern Physics	3	3.00
CHM 115	Chemistry - I	3	3.00
MTH 125	Differential Calculus, Solid Geometry and Vectors	4	4.00
ME 101	Introduction to Mechanical Engineering	3	3.00
EEE 159	Fundamentals of Electrical Engineering	3	3.00
Total Theoretical:		16	16.00
CHM 116	Inorganic Quantitative Analysis Sessional	3	1.50
EEE 160	Fundamentals of Electrical Engineering Sessional	1.5	0.75
SHOP 160	Foundry and Welding Shops	1.5	0.75
ME 160	Mechanical Engineering Drawing -I	3	1.50
Total Sessional:		9	4.5
Grand Total:		25.0	20.50

Contract hours: 25.0; Credit hours: 20.50

Year-1, Semester-2

Course No.	Course Name	Contact hours	Credit hours
PHY 119	Waves and Oscillation, Geometrical Optics and Wave Mechanics	3	3.00
CHM 117	Chemistry of Engineering Materials	3	3.00
MTH 127	Integral Calculus and Differential Equations	4	4.00
ME 171	Computer Programming Language	3	3.00
HUM101	English	3	3.00
Total Theoretical:		16	16.00
PHY 120	Physics Sessional	3	1.50
ME172	Computer Programming Language Sessional	3	1.50
SHOP 170	Machine Shop Practice	1.5	0.75
Total Sessional:		7.5	3.75
Grand Total:		23.50	19.75

Contract hours: 23.50; Credit hours: 19.75

Year-2, Semester-1

Course No.	Course Name	Contact hours	Credit hours
ME 247	Engineering Mechanics-I	3	3.00
EEE 259	Electrical and Electronics Technology	4	4.00
MTH 223	Vector Calculus, Matrices, Laplace Transform and Series Solution	4	4.00
ME 203	Engineering Thermodynamics	3	3.00
HUM 201	Sociology	3	3.00
Total Theoretical:		17	17.00
EEE 260	Electrical and Electronics Technology Sessional	3	1.50
ME 204	Engineering Thermodynamics Sessional	1.5	0.75
Total Sessional:		4.5	2.25
Grand Total:		21.5	19.25

Contract hours: 21.50; Credit hours: 19.25

Year-2, Semester-2

Course No.	Course Name	Contact hours	Credit hours
MME 291	Metallic Materials	3	3.00
ME 261	Numerical Analysis	3	3.00
ME 243	Mechanics of Solids	3	3.00
MTH 225	Complex Variables, Harmonic Analysis and Partial Differential Equations	4	4.00
ME 249	Engineering Mechanics-II	3	3.00
Total Theoretical:		16	16.00
MME 292	Metallic Materials Sessional	3	1.50
ME 262	Numerical Analysis Sessional	1.5	0.75
ME 244	Mechanics of Solids Sessional	1.5	0.75
ME 260	Mechanical Engineering Drawing -II	3	1.50
Total Sessional:		9.0	4.50
Grand Total:		25.0	20.50

Contract hours: 25.0; Credit hours: 20.50

Year-3, Semester-1

Course No.	Course Name	Contact hours	Credit hours
IPE 331	Production Processes	4	4.00
ME 321	Fluid Mechanics - I	3	3.00
ME 349	Mechanics of Machinery	3	3.00
ME 305	Heat Transfer	3	3.00
ME 361	Instrumentation and Measurement	3	3.00
Total Theoretical:		16	16.00
IPE 332	Production Process Sessional	1.5	0.75
ME 350	Mechanics of Machinery Sessional	3	1.5
ME 306	Heat Transfer Sessional	1.5	0.75
ME 366	Electro-Mechanical System Design and Practice	3	1.50
Total Sessional:		9	4.50
Grand Total:		25.0	20.50

Contract hours: 25.0; Credit hours: 20.50

Year-3, Semester-2

Course No.	Course Name	Contact hours	Credit hours
HUM 303	Principles of Accounting	3	3.00
ME 323	Fluid Mechanics – II	3	3.00
ME 351	Machine Design	4	4.00
IPE 381	Measurement and Quality Control	3	3.00
ME 307	Heat Transfer Equipment Design	3	3.00
Total Theoretical:		16	16.00
ME 326	Fluid Mechanics Sessional	1.5	0.75
ME 352	Machine Design Sessional	3	1.50
IPE 382	Measurement and Quality Control Sessional	1.5	0.75
ME 310	Thermo Fluid System Design	3	1.50
ME 370	Industrial Training	4 weeks	*
Total Sessional:		9.0	4.50
Grand Total:		25.0	20.50

Contract hours: 25.0; Credit hours: 20.50

* Non-credit course. Performance is judged either by 'S' for satisfactory or 'U' for unsatisfactory.

Year-4, Semester-1

Course No.	Course Name	Contact hours	Credit hours
ME 421	Fluid Machinery	3	3.00
IPE 431	Machine Tools	3	3.00
ME 417	Internal Combustion Engines	3	3.00
ME 409	Renewable Energy	3	3.00
ME 415	Refrigeration and Building Mechanical System	3	3.00
Total Theoretical:		15	15.00
ME 422	Fluid Machinery Sessional	1.5	0.75
IPE 432	Machine Tools Sessional	1.5	0.75
ME 418	Heat Engines Sessional	1.5	0.75
ME 400	Project and Thesis	6	3.00
Total Sessional:		10.5	5.25
Grand Total:		25.5	20.25

Contract hours: 25.50; Credit hours: 20.25

Year-4, Semester-2

Course No.	Course Name	Contact hours	Credit hours
ME 419	Power Plant Engineering	3	3.00
ME 425	Aerodynamics	3	3.00
ME 447	Robotics	3	3.00
ME 467	Automobile Engineering	3	3.00
IPE 481	Industrial Management	4	4.00
Total Theoretical:		16	16.00
ME 420	Power Plant Engineering Sessional	1.5	0.75
ME 400	Project and Thesis	6	3.00
Total Sessional:		7.5	3.75
Grand Total:		23.5	19.75

Contract hours: 23.50; Credit hours: 19.75

Grand total of Credit Hours required for B. Sc. Engineering in Mechanical Engineering (ME) degree is 161.00 hours.

12.2 Categorical Total Credit Hours of Courses and its Percentage (%)

Total Credit Hours of ME Course	Name of Course(s)	Course-wise No. of Credit Hours	Course-wise Percentage (%)
161.00	Core Courses	76	40.63
	Allied Courses	30	18.75
	Basic Science	15	9.38
	Humanities	9	7.03
	Mathematics	16	12.50
	Optional Courses	15	11.72
	TOTAL:		161.00

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