

COURSE CONTENT *for Mechanical Engineering [ME]*

1st Semester							
A. Theory							
Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	HU 101	English Language & Communication	2	1	0	3	3
2	PH 101	Engineering Physics	3	1	0	4	4
3	M 101	Mathematics	3	1	0	4	4
4	ME 101	Mechanical Sciences	3	1	0	4	4
5	EE 101	Basic Electrical Engineering	3	1	0	4	4
6	CH 101	Environment & Ecology	3	0	0	3	3
Total Theory						22	22
B. Practical							
7	PH 191	Engineering Physics Lab	0	0	3	3	2
8	EE 191	Electrical Engineering Lab	0	0	3	3	2
9	ME 191	Engineering Graphics	0	0	3	3	2
10	ME 192	Workshop Practical	0	0	3	3	2
Total Practical						12	8
Total of Semester						34	30

2nd Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	PH 201	Engineering Physics	4	0	0	4	4
2	M 201	Mathematics	3	1	0	4	4
3	ME 201	Mechanical Sciences	3	0	0	3	3
4	CS 201	Introduction to Computing	2	1	0	3	3
5	EC 201	Basic Electrical Engineering	3	1	0	4	4
6	CH 201	Engineering Chemistry	3	0	0	3	3
Total Theory						21	21
B. Practical							
7	PH 291	Engineering Physics Lab	0	0	3/2	3/2	1
8	CH 291	Engineering Chemistry Lab	0	0	3/2	3/2	2
9	CS 291	Computing Lab	0	0	3	3	2
10	EC 291	Electronics Engineering Lab	0	0	3	3	2
11	ME 291	Engineering Graphics	0	0	3	3	2
12	ME 292	Workshop Practical	0	0	3	3	2
Total Practical						15	10
Total of Semester						36	31

3rd Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	ME 301	Fluid Mechanics	3	1	0	4	4
2	ME 302	Thermodynamics	4	0	0	4	4
3	M 303	Mathematics	3	1	0	4	4
4	ME 304	Mechanics of Deformable Bodies	3	0	0	3	3
5	ME 305	Computer Graphics & Solid Modeling	3	0	0	3	3
6	EE(ME) 306	Electrical Machines	3	0	0	3	3
Total Theory						21	21
B. Practical							
7	ME 395	Graphics Laboratory - I	0	0	4	4	3
8	ME 396	Manufacturing Process Laboratory	0	0	3	3	2
9	EE(ME) 396	Electrical Machines Laboratory	0	0	3	3	2
Total Practical						10	7
Total of Semester						31	28

4th Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	ME 401	Fluid Machinery	3	0	0	3	3
2	ME 402	Engineering Thermodynamics	3	0	0	3	3
3	ME 403	Measurements and Instrumentation	3	0	0	3	3
4	ME 404	Analysis and Synthesis of Linkages and Machines	3	0	0	3	3
5	ME 405	Materials Science and Technology	3	0	0	3	3
6	ME 406	Manufacturing Technology	3	0	0	3	3
Total Theory						18	18
B. Practical							
7	ME 491	Fluid Mechanics and Fluid Machinery Laboratory	0	0	3	3	2
8	ME 493	Measurements and Instrumentation Laboratory	0	0	3	3	2
9	ME 496	Manufacturing Technology Laboratory	0	0	3	3	2
10	ME 498	Graphics Laboratory - II	0	0	3	3	2
Total Practical						12	8
C. Sessional							
11	HU 481	Technical Report Writing & / Language Practice Laboratory	0	0	3	3	2
Total Sessional						3	2
Total of Semester						33	28

5th Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	ME 501	I.C. Engine and Steam Turbine	4	0	0	4	4
2	ME 502	Heat Transfer	3	1	0	4	4
3	ME 503	Design of Machine Elements	3	0	0	3	3
4	ME 504	Technology of Machining	4	0	0	4	4
5	ME 505	Environmental Management	3	0	0	3	3
Total Theory						18	18
B. Practical							
6	ME 592	Thermal Engineering Laboratory - I	0	0	3	3	2
7	ME 593	Design Practice - I	0	0	3	3	2
8	ME 594	Manufacturing Technology Laboratory	0	0	3	3	2
9	ME 596	Strength of Materials Laboratory	0	0	3	3	2
Total Practical						12	8
C. Sessional							
10	ME 599	Vocational Training	0	0	0	0	2
Total Sessional						0	2
Total of Semester						30	28

6th Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	ME 601	Automation, CNC Machines and Robotics	4	0	0	4	4
2	ME 602	Mechatronics and Modern Control	3	0	0	3	3
3	ME 603	Energy Conversion and Management	4	0	0	4	4
4	ME 604	Design of Mechanical Systems	4	0	0	4	4
5	ME 605	Dynamics of Machines	3	0	0	3	3
Total Theory						18	18
B. Practical							
6	ME 692	Mechatronics and Modern Control Laboratory	0	0	3	3	2
7	ME 694	Design Practice - II	0	0	3	3	2
8	ME 695	Dynamics of Machines Laboratory	0	0	3	3	2
9	ME 696	Thermal Engineering Laboratory-II	0	0	3	3	2
Total Practical						12	8
C. Sessional							
10	ME 699	Seminar	0	0	3	3	2
Total Sessional						3	2
Total of Semester						33	28

7th Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	ME 701	Advanced Manufacturing Technology	3	0	0	3	3
2	ME 702	Advances in Materials Processing	3	0	0	3	3
3	ME 703	Operations Research and Industrial Management	3	1	0	4	4
4	HU 701	Ethics in Engineering Profession	3	0	0	3	3
5	HU 702	Engineering Economy & Financial Management	3	0	0	3	3
Total Theory						16	16
B. Practical							
6	ME 794	CAD - CAM Laboratory	0	0	3	3	2
7	ME 795	Project	0	0	9	9	6
Total Practical						12	8
C. Sessional							
8	ME 798	Vocational Training	0	0	0	0	2
9	ME 799	Seminar on assigned Topic	0	0	3	3	2
Total of Sessional						3	4
Total of Semester						31	28

8th Semester

A. Theory

Sl. NO.	Course Code	Topic	Contacts Periods/Week				Credits
			L	T	P	Total	
1	ME 801	Industrial Engineering	3	0	0	3	3
2		Elective - I	3	0	0	3	3
3		Elective - II	3	0	0	3	3
4		Elective III	3	0	0	3	3
Total Theory						12	12
B. Practical							
5	ME 891	Industrial Engineering Laboratory	0	0	3	3	2
Total Practical						3	2
C. Sessional							
6	ME 898	Project / Thesis with defence of project	0	0	12	12	8
7	ME 881	Participation in Institutional Activities	0	0	0	0	2
8	ME 899	Comprehensive Viva-Voce					4
Total of Sessionals						12	14
Total of Semester						27	28

Elective-I

Sl. No.	Course Code	Topic
1	ME 802	Computational Heat Transfer
2	ME 803	Combustion Engineering
3	ME 804	Reliability Engineering & Plant Maintenance
4	ME 805	Tribology and Terotechnology
5	ME 806	Non-conventional Energy Sources
6	ME 807	Finite Element Method and its Application
7	ME 808	Experimental Stress Analysis

Elective-II		
Sl. No.	Course Code	Topic
1	ME 811	Automotive Engineering
2	ME 812	Robotics and Robot Applications
3	ME 813	Management Information Systems
4	ME 814	Energy Management & Auditing
5	ME 815	Refrigeration and Air-conditioning
6	ME 816	Optoelectronics and Laser Material Processing
7	ME 817	Gas Turbine Theory
8	PE 807	Computer Integrated Manufacturing
9	IT 806	Information Technology

Elective-III		
Sl. No.	Course Code	Topic
1	ME 821	Total Quality Management
2	ME 822	Mechanics of Composite Materials
3	ME 823	Fracture Mechanics
4	ME 824	Advanced Sensors for Engineering Applications & NDT
5	IT 816	Entrepreneurship and E-business
6	CS 815	Computer Networking and Web Based Technology