

Structure of Curriculum

SEMESTER - 1

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre- requisites
			L	T	P	C	
MA101	Mathematics – I	Sc/HS	3	1	0	4	None
ME101	Engineering Mechanics	BE	3	0	0	3	None
CY101/ PH101	Chemistry/Physics	Sc/HS	2/3	1	0	3/4	None
CE101	Engineering Drawing	BE	1	0	4	3	None
EE101/ EC101	Basic Electrical Engineering/ Basic ElectronicsEngineering	BE	2	0	0	2	None
HS101	English Language Skills	Sc/HS	2	0	0	2	None
HS151	English Language Skills Lab	L	0	0	2	1	None
CY151/ PH151	Chemistry/Physics Lab	L	0	0	2	1	None
EE151/ EC151	Basic Electrical Lab/ Basic Electronics Lab	L	0	0	2	1	None
Total Contact Hours – Component wise			13/1 4	2	10		
Total Contact Hours			25/26			20/21	-

SEMESTER - 2

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre- requisites
			L	T	P	C	
MA102	Mathematics – II	Sc/HS	3	1	0	4	None
EE101/ EC101	Basic ElectricalEngineering/ Basic ElectronicsEngineering	BE	2	0	0	2	None
PH101/ CY101	Physics /Chemistry	Sc/HS	3/2	1	0	4/3	None
CY102	Environmental Science	Sc/HS	2	0	0	2	None
CS102	Introduction to Computing	Sc/HS	2	1	0	3	None
ME152	Workshop Practice	L	0	0	4	2	None
EE151/ EC151	Basic ElectricalLab/Basic Electronics Lab	L	0	0	2	1	None
CY151/ PH151	Chemistry Lab/Physics Lab	L	0	0	2	1	None
CS152	Computing Lab	L	0	0	2	1	None
Total Contact Hours – Component wise			12/1 1	3	10	20/19	
Total Contact Hours			25/24			20/19	---

SEMESTER - 3

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre- requisites
			L	T	P	C	
MA 201	Integral Transforms and PDEs	M	3	1	0	4	None
Professional Core Courses - 1, 2, 3							
ME 201	Strength of Materials	PC	3	0	0	3	None
ME 203	Engineering Thermodynamics	PC	3	0	0	3	None
ME 205	Fluid Mechanics	PC	3	0	0	3	None
Special Course – 1							
ME 291	Safety Engineering	S	2	0	0	2	None
Lab Courses - 1, 2, 3							
ME 251	Material Testing Lab	L	0	0	2	1	None
ME 253	Advanced Workshop Practice.	L	0	1	2	2	None
ME 255	Fluid Mechanics Lab	L	0	1	2	2	None
Total Contact Hours – Component wise			14	3	6	20	
Total Contact Hours			23			20	---

SEMESTER - 4

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre- requisites
			L	T	P	C	
Professional Core Courses - 4, 5, 6							
ME 202	Kinematics & Dynamics of Machines	PC	3	1	0	4	ME 101
ME 204	Engineering Materials	PC	3	0	0	3	None
ME 206	Applied Thermodynamics	PC	3	0	0	3	ME 203
Professional Elective – 1							
ME 212	Metrology & Instrumentation	PE	3	0	0	3	None
ME 214	Dynamics of rigid Bodies	PE	3	0	0	3	None
ME 216	Principles of Gas Turbine	PE	3	0	0	3	None
ME 218	Concepts in Engineering Design	PE	3	0	0	3	
Professional Elective – 2							
ME 220	Fluid Machines	PE	3	0	0	3	None
ME 222	Advanced Strength of Material	PE	3	0	0	3	None
ME 224	Organizational Behaviour	PE	3	0	0	3	None
Open Elective - 1							
ME 272	Product Design and Development.	OE	2	0	0	2	None
Lab Courses - 4, 5, 6							
ME 252	Theory of Machine Lab	L	0	1	2	2	None
ME 254	Material Science Lab	L	0	0	2	1	None
ME 256	Fluid Machines Lab	L	0	1	2	2	None
Total Contact Hours – Component wise			32	3	6	23	
Total Contact Hours			41			23	---

SEMESTER - 5

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre-requisites
			L	T	P	C	
Professional Core Courses - 7, 8, 9							
ME 301	Manufacturing Technology-I	PC	3	0	0	3	None
ME 303	Heat Transfer	PC	3	1	0	4	None
ME 305	Machine Design-I	PC	3	1	0	4	None
Professional Elective - 3							
ME 311	Internal Combustion Engine	PE	3	0	0	3	None
ME 313	Experimental Stress Analysis	PE	3	0	0	3	None
ME 315	Non Traditional Manufacturing	PE	3	0	0	3	None
Professional Elective – 4							
ME 317	Industrial Engineering	PE	3	0	0	3	None
ME 319	Design of Thermal systems	PE	3	0	0	3	None
ME 321	Tribology	PE	3	0	0	3	None
Open Elective – 2							
ME 371	Power plant Engg. And Energy Audit.	OE	2	0	0	2	None
Lab Courses - 7, 8, 9							
ME 351	Non Traditional Machining Lab	L	0	0	2	1	None
ME 353	Thermal Engineering Lab	L	0	1	2	2	None
ME 355	Machine Design and Drawing	L	0	1	2	2	None
Total Contact Hours – Component wise			29	4	6	24	
Total Contact Hours			39			24	---

SEMESTER - 6

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre-requisites
			L	T	P	C	
Professional Core Courses – 10, 11							
ME 302	Machine Design-II	PC	3	1	0	4	ME 305
ME 304	Manufacturing Technology-II	PC	3	0	0	3	None
Professional Elective – 5							
ME 312	Power plant Engineering	PE	3	0	0	3	None
ME 314	Mechanics of Composite Material	PE	3	0	0	3	None
ME 316	Machine Tool Technology	PE	3	0	0	3	None
ME 318	Advanced Manufacturing Technology and Quality Assurance	PE	3	0	0	3	None
Professional Elective – 6							
ME 320	CAD-CAM	PE	3	0	0	3	None
ME 322	Principles of Management	PE	3	0	0	3	None
ME 324	Gas Dynamics	PE	3	0	0	3	None
Open Elective – 3							
ME 372	Industry 4.0 and 6 Sigma Engg.	OE	2	0	0	2	None
Special HS Course – 2							
HS392	Corporate English	S	2	0	0	2	None
Lab Courses – 10, 11							
ME 352	Advanced Mechanical Lab-I	L	0	1	2	2	None
ME 354	Advanced Manufacturing Lab	L	0	1	2	2	None
ME 382	Minor Project	P	0	0	2	1	None
Total Contact Hours – Component wise			31	3	6	22	
Total Contact Hours			40			22	---

SEMESTER – 7

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre-requisites
			L	T	P	C	
ME 401	Project – I	P	0	0	10	5	None
Professional Elective –7							
ME 411	Refrigeration and Air-conditioning	PE	3	0	0	3	None
ME 413	Mechanical Micro Machining	PE	3	0	0	3	None
ME 415	Fracture Mechanics	PE	3	0	0	3	None
ME417	Supply Chain and Logistics Management	PE	3	0	0	3	None
Professional Elective –8							
ME 419	Mechatronics and Control	PE	3	0	0	3	None
ME 421	Wind energy	PE	3	0	0	3	None
ME 423	Green Manufacturing	PE	3	0	0	3	None
ME 425	Biomechanics	PE	3	0	0	3	None
Open Elective –4							
ME 471	Supply Chain Management	OE	2	0	0	2	None
Special Course –3							
CE491	Disaster Management	S	2	0	0	2	None
Lab Courses – 12							
ME 451	Advanced Mechanical Lab-II	L	0	1	2	2	None
ME 481	Internship	I	0	0	0	1	
Total Contact Hours – Component wise			31	2	4	18	
Total Contact Hours			37			18	---

SEMESTER - 8

Course Code	Course Title	Course Type	Contact Hours			Credit	Pre- requisites
			L	T	P	C	
ME 402	Project - II	P	0	0	18	9	None
Professional Elective –9							
ME 412	Computational Fluid Dynamics	PE	3	0	0	3	None
ME 414	Robotics	PE	3	0	0	3	None
ME 416	Manufacturing of Composite Materials	PE	3	0	0	3	None
Professional Elective –10							
ME 418	Mechanical Vibration	PE	3	0	0	3	None
ME 420	Automobile Engineering.	PE	3	0	0	3	None
ME 422	Advanced Manufacturing Process	PE	3	0	0	3	None
Special Course –4							
HS492	Entrepreneurship	S	2	0	0	2	None
Total Contact Hours – Component wise			26	2	2	17	
Total Contact Hours			30			17	---