

Semester-I

Course Code	Course Name	(L-T-P)			Credits
H101	Universal Human Values - I: Self and Family	2	0	0	6
PE101	Elementary Physical Education	0	1	3	5
CP101	Creative Practices #	0	1	3	5
	Total	2	2	6	16
HL101	Basic English*	2	0	1	7
	Total	4	2	7	23

#Creative Practices course to be announced by Dean Academic Office

Mechanical Engineering : 4-Year B.Tech. I-Semester

PHY 101	Physics -I Classical,Quantum & Relativistic Mechanics	3	1	2	13
MA 101	Engineering Mathematics- I	3	1	0	11
CY 101	Chemistry -I	2	1	2	10
ME103	Engineering Thermodynamics	3	1	0	11
ME105	Manufacturing Practice I	0	0	3	3
ME104	Engineering Drawing	1	0	3	6
	Total Credits	12	4	10	54

Semester-II

Course Code	Course Name	(L-T-P)			Credits
MA 102	Engineering Mathematics- II	3	1	0	11
CSO101	Computer Programming	3	1	2	13
ME102	Engineering Mechanics	3	1	0	11
ME 221	Mechanical Measurement\$	3	0	0	9
ME106	Manufacturing Practice II	0	0	3	3
ME 222	Machine Drawing	0	0	3	3
H105	Philosophy*	2	1	0	8
H106	Education and Self*				
	Total Credits	14	4	8	58

Semester–III

Course Code	Course Name	(L-T-P)			Credits
EO101	Fundamentals of Electrical Engineering	3	1	2	13
ME214	Mechanics of Materials	3	1	0	11
ME 231	Fluid Mechanics and Fluid Machinery	3	0	2	11
ME251	Manufacturing Technology	3	0	2	11
ME252	Materials for Mechanical Engineering	2	0	0	6
H103	History & Civilization*	2	1	0	8
H104	Development of Societies*				
	Total Credits	16	3	6	60

Semester– IV

Course Code	Course Name	(L-T-P)			Credits
MA 201	Numerical Techniques	3	1	0	11
ME 223	Kinematics of Machines	3	0	0	9
ME 224	Mechanics of Deformable Solids	3	0	2	11
ME 241	Heat and Mass Transfer	3	0	2	11
ME 261	Metal Machining & Machine Tools	3	0	2	11
ME 291	Exploratory Project	0	0	5	5
	Total Credits	15	1	11	58

Semester-V

Course Code	Course Name	(L-T-P)			Credits
MA 202	Probability and Statistics	3	1	0	11
ME 311	Fundamentals of Machine Design	3	0	0	9
ME 351	Tool Design and Metrology	3	0	2	11
ME312	Dynamics of Machines	2	0	3	9
OE - 1	Open Elective -1	3	0	0	9
DE - 1	Department Elective 1 (Design/ Thermal/Production/Industrial)	3	0	0	9
	Total Credits	17	1	5	58
ME391S	Stream Project	0	0	10	10
	Total (Hons. Students)	18	1	15	68
Department Elective -1 Courses					
ME 312	Vibrations	3	0	0	9
ME 313	Materials for Tribological Applications	3	0	0	9
ME 314	Mechatronics	3	0	0	9
ME 331	Combustion Technology	3	0	0	9
ME 332	Thermal Management of Electronic System	3	0	0	9
ME 352	Mechanical Behaviour of Engineering Materials	3	0	0	9
ME 353	Lasers in Manufacturing Technology	3	0	0	9
ME 579	Engineering Economics	3	0	0	9
ME 574	Production Planning and Control	3	0	0	9

Semester– VI

Course Code	Course Name	(L-T-P)			Credits
ME 321	Design of Machine Elements	3	0	2	11
ME 341	Energy Conversion Systems	3	0	2	11
ME471	Industrial Management	3	0	0	9
ME 322	Computational Mechanics	0	0	3	3
OE - 2	Open Elective - 2	3	0	0	9
DE - 2	Department Elective (DE)-2 (Thermal/Design/Manufacturing/Industrial)	3	0	0	9
ME392/ ME392S	Stream or UG Project	0	0	10	10
	Total Credits	15	0	17	62

Department Elective-2 Courses

ME 323	Composite Materials	3	0	0	9
ME 324	Biomaterials	3	0	0	9
ME 325	Smart Materials and Structures	3	0	0	9
ME 342	Refrigeration & Air-conditioning	3	0	0	9
ME 343	Non-Conventional Energy Resources	3	0	0	9
ME 361	Tribology of Manufacturing Processes	3	0	0	9
ME 587	Forecasting and Time Series Analysis	3	0	0	9
ME 485	Operations Research	3	0	0	9

Mechanical Engineering: 4-Year B.Tech. Summer Semester

ME 497	Industrial Training/ Project/Training	0	0	0	5
	Total	0	0	0	5

Semester-VII

Course Code	Course Name	(L-T-P)			Credits
MO102	Transport Phenomena	3	1	0	11
OE - 3	Open Elective - 3	3	0	0	9
ME 431	Turbomachines	2	0	0	6
DE - 3	Department Elective(DE)-3 (Thermal/Design/Manufacturing/Industrial)	3	0	0	9
ME 492/ ME 492S	Stream or UG Project	0	0	10	10
LM	Language & Management course	3	0	0	9
	Total Credits	11	0	10	54

Department Elective-3 Courses

ME 412	Fracture Mechanics	3	0	0	9
ME 413	Experimental Mechanics & NDT	3	0	0	9
ME 511	Optimization for Engineering Design	3	0	0	9
ME 512	Computer-aided Design	3	0	0	9
ME513	Theory of elasticity	3	0	0	9
ME 514	Theory of vibrations	3	0	0	9
ME 515	Advanced composite materials	3	0	0	9
ME 516	Mechanics of fracture and fatigue	3	0	0	9
ME 517	Vehicle Dynamics	3	0	0	9
ME 432	Automobile Engineering	3	0	0	9
ME 433	Computational Fluid Dynamics	3	0	0	9
ME 453	Manufacturing Systems	3	0	0	9
ME 454	Rapid Design & Manufacturing	3	0	0	9
ME586	Facility Planning : Layout and Location	3	0	0	9
ME 573	Supply Chain Management	3	0	0	9
ME 453	Manufacturing Systems	3	0	0	9

Semester– VIII

Course Code	Course Name	(L-T-P)			Credits
OE - 4	Open Elective - 4	3	0	0	9
DE - 4	Department Elective(DE) - 4	3	0	0	9
DE - 5	Department Elective(DE) - 5	3	0	0	9
ME 401	Mechanical Engineering Lab	0	0	3	3
LM	Language & Management course	3	0	0	9
Total Credits		12	0	3	39
ME 492S	Stream Project	0	0	10	10
	Total Credits (Hons.)	12	0	13	49

Department Elective - 4 Courses

ME 411	Finite Element Method	3	0	0	9
ME 526	Impact Dynamics and Crashworthiness	3	0	0	9
ME 527	Theory of Plasticity	3	0	0	9
ME 441	Internal Combustion Engine	3	0	0	9
ME 442	Bio Transport Mechanism	3	0	0	9
ME 451	Unconventional Machining Processes	3	0	0	9
ME 452	Theory of Abrasive Machining	3	0	0	9
ME 461	Robotics	3	0	0	9
ME 583	Simulation for Decision Making	3	0	0	9
ME 582	Total Quality Management	3	0	0	9
ME 584	Marketing Management	3	0	0	9

Department Elective - 5 Courses

ME 421	Control Systems Engineering	3	0	0	9
ME 525	Tribology	3	0	0	9
ME 443	Power Generation	3	0	0	9
ME 444	Wind Power Meteorology	3	0	0	9
ME 445	Applied CFD	3	0	0	9
ME 461	Robotics	3	0	0	9
ME 581	Management Information System	3	0	0	9
ME 585	Design of Production System	3	0	0	9
ME 563	Green Manufacturing	3	0	0	9

Semester-IX

CourseCode	Course Name	(L-T-P)			Credits
OE - 5	Open Elective - 5	3	0	0	9
OE - 6	Open Elective - 6	3	0	0	9
DE - 7	Department Elective(DE) - 7	3	0	0	9
ME692	Thesis	0	0	10	10
LM	Language & Management course	3	0	0	9
	Total Credits in Semester	12	0	10	46

DE7 Courses

ME-510	Biomaterials : Principles and Practices	3	0	0	9
ME 518	Biomechanics	3	0	0	9
ME 519	Theory of Mechanisms	3	0	0	9
ME 528	Engineering Design	3	0	0	9
ME 536	Combustion Generated Pollution	3	0	0	9
ME 537	Advanced Refrigeration Systems	3	0	0	9
ME 538	Advanced Turbo-machines	3	0	0	9
ME 559	Casting and Welding	3	0	0	9
ME 560	Mechanics of Metal Forming	3	0	0	9
ME 575	Multi Criteria Decision Analysis	3	0	0	9
ME 572	Quality Engineering	3	0	0	9

Semester-X

CourseCode	Course Name	(L-T-P)			Credits
ME693	Thesis	0	0	0	50
	Total Credits in Semester	0	0	0	50