

MECHANICAL ENGINEERING
COURSE STRUCTURE – UG(CBCS)
SEMESTER-I

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16BS1T01	Proficiency course in English-I	3	-	-	3	40	60	100
2	16MA1T01	Differential Equations and Laplace Transforms	3	-	-	3	40	60	100
3	16MA1T02	Numerical Methods and Integral Transforms	3	-	-	3	40	60	100
4	16BS1T02	Engineering Chemistry	3	-	-	3	40	60	100
5	16CS1T01	Fundamentals of Computers and C Programming	3	-	-	3	40	60	100
6	16BS1T04	Environmental Science	3	-	-	3	40	60	100
7	16BS1L01	English Proficiency Lab	-	-	4	2	40	60	100
8	16BS1L02	Engineering Chemistry Lab	-	-	4	2	40	60	100
9	16CS1L01	C- Programming Lab	-	-	4	2	40	60	100
		Total	18	-	12	24	360	540	900

SEMESTER-II

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16BS2T01	Proficiency Course in English-II	3	-	-	3	40	60	100
2	16MA2T01	Linear Algebra and Vector Calculus	3	-	-	3	40	60	100
3	16EE2T02	Basic Electrical and Electronics	3	-	-	3	40	60	100
4	16BS2T03	Engineering Physics	3	-	-	3	40	60	100
5	16ME2T01	Engineering Drawing	1	-	4	3	40	60	100
6	16ME2T02	Engineering Mechanics	3	-	-	3	40	60	100
7	16BS2L01	English Communication Skills Lab	-	-	4	2	40	60	100
8	16BS2L03	Engineering Physics Lab	-	-	4	2	40	60	100
9	16ME2L01	Engineering Workshop Practice	-	-	4	2	40	60	100
		Total	16	-	16	24	360	540	900

L-LECTURE HOURS, T-TUTORIAL HOURS, P-PRACTICAL HOURS, C-CREDITS,

I-INTERNAL MARKS, E-EXTERNAL MARKS, TM-TOTAL MARKS

MECHANICAL ENGINEERING
COURSE STRUCTURE – UG
SEMESTER-III

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16ME3T01	Thermo Dynamics	3	1	-	4	40	60	100
2	16ME3T02	Mechanics of Solids	3	1	-	4	40	60	100
3	16ME3T03	Fluid Mechanics and Hydraulic Machinery	3	-	-	3	40	60	100
4	16ME3T04	Metallurgy and Material Science	3	-	-	3	40	60	100
5	16BM3T01	Managerial Economics and Financial Analysis	3		-	3	40	60	100
6	16ME3L01	Mechanics of Solids and Metallurgy Lab	-	-	4	2	40	60	100
7	16ME3L02	Fluid Mechanics and Hydraulic Machinery Lab	-	-	4	2	40	60	100
8	16EE3L02	Electrical and Electronics Lab	-	-	4	2	40	60	100
		Total	15	2	12	23	320	480	800

SEMESTER-IV

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16ME4T01	IC Engines and Gas turbines	3	1	-	4	40	60	100
2	16ME4T02	Kinematics of Machinery	3	1	-	4	40	60	100
3	16ME4T03	Production Technology	3		-	3	40	60	100
4	16MA4T01	Probability and Statistics	3		-	3	40	60	100
5	16ME4T04	Industrial Engineering Management	3		-	3	40	60	100
6	16ME4L01	Machine Drawing Practice	-	-	4	2	40	60	100
7	16ME4L02	Production Technology Lab	-	-	4	2	40	60	100
8	16ME4L03	Computer Aided Engineering Drawing Practice	-	-	4	2	40	60	100
		Total	15	2	12	23	320	480	800

L-LECTURE HOURS, T-TUTORIAL HOURS, P-PRACTICAL HOURS, C-CREDITS,

I-INTERNAL MARKS, E-EXTERNAL MARKS, TM-TOTAL MARKS

MECHANICAL ENGINEERING
COURSE STRUCTURE – UG
SEMESTER – V

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16ME5T01	Dynamics of Machinery	3	1	-	4	40	60	100
2	16ME5T02	Design of Machine Elements	3	1	-	4	40	60	100
3	16ME5T03	Thermal Engineering	3	-	-	3	40	60	100
4	16ME5T04	Machine Tools	3	-	-	3	40	60	100
5		Elective – I	3	-	-	3	40	60	100
6	16ME5L01	Thermal Engineering Lab	-	-	4	2	40	60	100
7	16ME5L02	Machine Tools Lab	-	-	4	2	40	60	100
8	16ME5S01	Seminar	-	4	-	2	50	-	50
9	--	Mandatory Course: Professional Ethics and IPR					-	-	-
		Total	15	6	8	23	330	420	750

SEMESTER – VI

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16ME6T01	Heat Transfer	3	1	-	4	40	60	100
2	16ME6T02	Design of Mechanical Transmission Systems	3	1	-	4	40	60	100
3	16ME6T03	Metrology and Instrumentation	3	-	-	3	40	60	100
4		Elective – II	3	-	-	3	40	60	100
5		Open Elective – I	3	-	-	3	40	60	100
6	16ME6L01	Metrology Lab	-	-	4	2	40	60	100
7	16ME6L02	Heat Transfer Lab	-	-	4	2	40	60	100
8	16BS6L01	Soft Skills and Aptitude Lab	-	-	4	2	50	-	50
9	--	Mandatory Course – Certificate course (MOOCs, Professional Certificate)					-	-	-
		Total	15	2	12	23	330	420	750

L-LECTURE HOURS, T-TUTORIAL HOURS, P-PRACTICAL HOURS, C-CREDITS,

I-INTERNAL MARKS, E-EXTERNAL MARKS, TM-TOTAL MARKS

MECHANICAL ENGINEERING
COURSE STRUCTURE – UG
SEMESTER – VII

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1	16MA7T01	Operations Research	3	1	-	4	40	60	100
2	16ME7T01	Finite Element Methods	3	1	-	4	40	60	100
3	16ME7T02	CAD/CAM	3	-	-	3	40	60	100
4		Elective – III	3	-	-	3	40	60	100
5	16ME7L01	CAD/CAM Lab	-	-	4	2	40	60	100
6	16ME7L02	Instrumentation Lab	-	-	4	2	40	60	100
7	16ME7LE1	Skilled based Laboratory - Elective 1. Computational Fluid Dynamics	-	-	4	2	40	60	100
	16ME7LE2	2. MATLAB Applications in Mech. Engg.							
	16ME7LE3	3. Flexible Manufacturing System Lab							
	16CS7LE5	4. Java Programming Lab							
8	16ME7LE2	Internship / Mini Project (This work carried out during summer break after VI Semester)				2	50	-	50
		Total	12	2	12	22	330	420	750

SEMESTER – VIII

S. No.	Course Code	Course Name	L	T	P	C	I	E	TM
1		Elective – IV	3	-	-	3	40	60	100
2		Open Elective – II	3	-	-	3	40	60	100
3	16ME8P01	Project Work	-	-	24	12	60	140	200
		Total	6	-	24	18	140	260	400

L-LECTURE HOURS, T-TUTORIAL HOURS, P-PRACTICAL HOURS, C-CREDITS,

I-INTERNAL MARKS, E-EXTERNAL MARKS, TM-TOTAL MARKS

LIST OF OPEN ELECTIVES

S.No.	Course Code	Name of the Course	Offering Dept.
1	16CEXO01	Green Buildings and Infrastructure	CIVIL
2	16CEXO02	Disaster Management	
3	16EEXO01	Electrical Safety Management	EEE
4	16EEXO02	Non-Conventional Energy Sources	
5	16MEXO01	Composite Materials	MECH
6	16MEXO02	Operation Research	
7	16ECXO01	Introduction to Nanotechnology and its Applications	ECE
8	16ECXO02	Global Positioning and Navigation Satellite Systems	
9	16CSXO01	Data Base Management Systems	CSE
10	16CSXO02	Big Data Analytics	
11	16ITXO01	Software Project Management	IT
12	16ITXO02	Internet of Things (IOT)	
13	16BMXO01	Innovations and Entrepreneurship	MBA
14	16BMXO02	Industrial Sociology And Psychology	

Note: The student has to choose one Open Elective subject in Sem VI and Sem VIII, which was not studied in earlier semesters.

ELECTIVES

Stream	Code	Elective-I	Code	Elective-II	Code	Elective-III	Code	Elective-IV
Design	16ME5E01	Advanced Mechanics of Solids	16ME6E01	Mechanical Vibrations	16ME7E01	Tribology	16ME8E01	Pipe Line Design
Thermal	16ME5E02	Refrigeration and Air Conditioning	16ME6E02	Power plant Engineering	16ME7E02	Automobile Engineering	16ME8E02	Green Engineering Systems
Manufacturing	16ME5E03	Tool Design	16ME6E03	NC&CNC Machines	16ME7E03	Flexible Manufacturing Systems	16ME8E03	Un Conventional Machining Processes
Industrial Engineering	16ME5E04	Production Planning and Control	16ME6E04	Robotics	16ME7E04	Total Quality Management	16ME8E04	Supply Chain Management
Software	16CS5E06	Operating Systems	16CS6E05	Data Structures	16CS7E05	Oops Through Java	16CS8E05	Software Engineering
Electrical &Electronics	16EC5E04	Micro Processors	16EE6E04	Control Systems	16EE7E01	Utilization of Electrical Energy	16ME8E05	Mechatronics