

Curriculum

Structure of S.E. (Mechanical Engineering)

Semester-I

Subject Code	Subject	Teaching Scheme			Examination Scheme					Total Marks	Credits	
		Hours/Week			In-Sem (online)	End-Sem	TW	PR.	Oral		Lect/Tut	PR/OR
		L	Tut.	PR								
207002	Engineering Mathematics – III	04	01	-	50	50	25	-	-	125	05	-
202041	Manufacturing Process-I	03	-	02	50	50	50	-	-	150	03	01
202042	Computer Aided Machine Drawing	01	-	02	--	--		50	-	50	01	01
202043	Thermodynamics	04	-	02	50	50	-	-	50	150	04	01
202044	Material Science	03	01	-	50	50	25	-	-	125	03	01
202051	Strength of Materials	04	-	02	50	50	-	-	50	150	04	01
202055	Audit course											
					--	--						
	Total	19	02	08	250	250	100	50	100	750	20	05
	Total of Part-I	29 Hrs					750				25	

Semester-II

Subject Code	Subject	Teaching Scheme			Examination Scheme					Total Marks	Credits	
		Hours/Week			In-Sem (online)	End-Sem	TW	PR.	Oral		Lect/Tut	PR/OR
		L	Tut.	PR								
202045	Fluid Mechanics	04	-	02	50	50	-	50	-	150	04	01
202047	Soft Skills	-	-	02	--	--	25	-	-	25	-	01
202048	Theory of Machines – I	04	01	-	50	50	25	-	25	150	04	01
202049	Engineering Metallurgy	03	01	-	50	50	-	-	25	125	03	01
202050	Applied Thermodynamics	04	-	02	50	50	-	50	-	150	04	01
203152	Electrical and Electronics Engineering	03	-	02	50	50	25	-	-	125	03	01
202053	Machine Shop – I	-	-	02	--	--	25	-	-	25	-	01
	Total	18	02	10	250	250	100	100	50	750	18	07
	Total of Part-II	30 Hrs					750				25	

Structure of T.E. (Mechanical Engineering)

Semester-I

Code	Subject	Teaching Scheme (Weekly Load in hrs)			Examination Scheme (Marks)					
		Lect.	Tut	Pract.	Theory		TW	PR	OR	Total
					In Sem.	End Sem.				
302041	Design of Machine Elements – I	4	--	2	30 [#]	70 [@]	25 ^{**}	--	--	125
302042	Heat Transfer	4	--	2	30	70	--	50 [*]	--	150
302043	Theory of Machines-II	4	--	2	30	70	--	--	50 [§]	150
302044	Metrology and Quality Control	3	--	2	30	70	--	--	50	150
302045	Hydraulics and Pneumatics	3	--	2	30	70	25	--	--	125
302046	Skill Development	--	--	2	--	--	50	--	--	50
Total of Semester – I		18	--	12	150	350	100	50	100	750

Semester-II

Code	Subject	Teaching Scheme (Weekly Load in hrs)			Examination Scheme (Marks)					
		Lect.	Tut	Pract.	Theory		TW	PR	OR	Total
					In Sem.	End Sem.				
302047	Numerical Methods and Optimization	4	--	2	30	70	--	50	--	150
302048	Design of Machine Elements -II	4	--	2	30 [#]	70 [@]	25	--	50 ^{**}	175
302049	Turbo Machines	4	--	2	30	70	25	--	--	125
302050	Mechatronics	3	--	2	30	70	25	--	--	125
302051	Manufacturing Process-II	3	--	--	30	70	--	--	--	100
302052	Machine Shop -II	--	--	2	--	--	25	--	--	25
302053	Seminar	--	--	2	--	--	--	--	50	50
Total of Semester – II		18		12	150	350	100	50	100	750

Structure of B.E. (Mechanical Engineering)

B. E. (Mechanical) Semester – I

Code	Subject	Teaching Scheme (Weekly Load in hrs)			Examination Scheme(Marks)					
		Lect.	Tut	Practical	In-Sem	End-Sem	TW	PR ⁺	OR ⁺	Total
402041	Refrigeration and Air Conditioning	3	--	2	30	70	25	--	50	175
402042	CAD/ CAM Automation	3	--	2	30	70	--	50	--	150
402043	Dynamics of Machinery	4	--	2	30	70	25	--	50	175
402044	Elective – I	3	--	--	30	70	--	--	--	100
402045	Elective –II	3	--	--	30	70	--	--	--	100
402046	Project –I	--	2	--	--	--	50*	--	--	50
Total of Semester – I		16	2	6	150	350	100	50	100	750

B. E. (Mechanical) Semester – II

Code	Subject	Teaching Scheme (Weekly Load in hrs)			Examination Scheme(Marks)					
		Lect.	Tut	Practical	In-Sem	End-Sem	TW	PR ⁺	OR ⁺	Total
402047	Power Plant Engineering	4	--	2	30	70	25	--	50	175
402048	Mechanical System Design	4	--	2	30	70	--	--	50	150
402049	Elective-III	4	--	--	30	70	--	--	--	100
402050	Elective- IV	4	--	2	30	70	25	--	--	125
402051	Project – II	--	6	--	--	--	150	--	50	200
Total of Semester – II		16	6	6	120	280	200	--	150	750

+ For all Oral/Practical heads: Examination will be based on term work and Theory Subject

* Assessment should be carried out by panel of examiners from same Institute

Elective-I		Elective-II	
Code	Subject	Code	Subject
402044 A	Energy Audit Management	402045 A	Gas Turbine Propulsion
402044 B	Tribology	402045 B	Product Design and Development
402044 C	Reliability Engineering	402045 C	Operation Research
402044 D	Machine Tool Design	402045 D	Advanced Manufacturing Processes
Elective-III		Elective-IV	
Code	Subject	Code	Subject
402049 A	Refrigeration and Air Conditioning Equipment Design	402050 A	Computational Fluid Dynamics
402049 B	Robotics	402050 B	Finite Element Analysis
402049 C	Industrial Engineering	402050 C	Design of Pumps, Blowers and

			Compressors
402049 D	Open Elective **		