

K. E. Society's
RAJARAMBAPU INSTITUTE OF TECHNOLOGY
B. Tech. (Mechanical)
Curriculum Structure and Syllabus

Final Year B. Tech (Mech.) – Semester VII

Course Code	Course	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max.	Min. for passing	Max.	Min. for passing
ME4011	Industrial Engineering	3	-	--	3	ISE	20	40	---	---
						MSE	30		---	---
						ESE	50		---	---
ME4031	Mechanical System Design	3	-	--	3	ISE	20	40	---	---
						MSE	30		---	---
						ESE	50		---	---
	Program Elective - II	3	--	--	3	ISE	20	40	---	---
						MSE	30		---	---
						ESE	50		---	---
	Program Elective - III	3	--	--	3	ISE	20	40	---	---
						MSE	30		---	---
						ESE	50		---	---
	Institute Elective - I	3			3	ISE	20	40	---	---
						MSE	30		---	---
						ESE	50		---	---
	Program Elective II-Laboratory	--	--	2	1	ISE	---	---	50	50
						ESE	---	---	50	50
ME4671	Advanced Testing Laboratory	--	--	2	1	ISE	---	---	50	50
						ESE	---	---	50	50
ME4711	Software Training I	--	-	4	2	ISE	---	---	100	50
ME4731	Capstone Project (DBT) phase - I	--	--	4	4	ISE	---	---	50	50
						ESE	---	---	50	50
ME4751	Industrial Problem Solving Assignment			2	1	ISE	---	---	100	50
TOTAL		15	-	14	24					

Total Contact Hours/week : 29

Total Credits : 24

ISE = In Semester Exam,

MSE = Mid Semester Exam,

ESE = End Semester Exam

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Program Elective -II

Course Code	Group	Course
ME4051	Design	Finite Element Method
ME4071		Experimental Mechanics
ME4091	Thermal	Automobile Engineering
ME4111	Production	Industrial Hydraulics and Pneumatics
ME4131		Computational Techniques

Program Elective -III

Course Code	Group	Course
ME4171	Design	Mechanics of Composite Materials
ME4191		Noise and vibration
ME4211		Machine Tool Design
ME4231	Thermal	Gas Turbine and Jet Propulsion
ME4251		Cryogenics
ME4271	Production	New Product Design and Development
ME4291		Additive Manufacturing
ME4311		Computer Integrated Manufacturing System

Program Elective -II Laboratory

Course Code	Group	Course
ME4551	Design	Finite Element Analysis Laboratory
ME4571		Experimental Mechanics Laboratory
ME4591	Thermal	Automobile Engineering Laboratory
ME4611	Production	Industrial Hydraulics and Pneumatics Laboratory
ME4631		Computational Techniques Laboratory

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Final Year B. Tech (Mech.) – Semester VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for passing	Max	Min. for passing
ME4021	Mechatronics	3	--	--	3	ISE	20	40	----	-----
						MSE	30		----	-----
						ESE	50		----	-----
ME4041	Refrigeration and Air Conditioning	3	-	--	3	ISE	20	40	----	-----
						MSE	30		----	-----
						ESE	50		----	-----
	Program Elective – IV	3	--	--	3	ISE	20	40	----	-----
						MSE	30		----	-----
						ESE	50		----	-----
	Institute Elective -II	3	-	--	3	ISE	20	40	----	-----
						MSE	30		----	-----
						ESE	50		----	-----
ME4561	Mechatronics Laboratory	--	--	2	1	ISE	----	-----	50	50
						ESE	----	-----	50	50
ME4581	Refrigeration and Air Conditioning Laboratory	--	--	2	1	ISE	----	-----	50	50
						ESE	----	-----	50	50
ME4721	Software Training II	--	-	4	2	ISE	----	-----	100	50
ME4741	Capstone Project (DBT) phase - II	--	--	8	8	ISE	---	---	50	50
						ESE	---	---	50	50
Total		12	-	16	24					

Total Contact Hours/week : 28

Total Credits : 24

ISE = In Semester Exam,

MSE = Mid Semester Exam,

ESE = End Semester Exam

Program Elective -IV

Course Code	Group	Course
ME4061	Design	Non-linear Finite Element Method
ME4081		Aircraft Conceptual Design
ME4101		Tribology
ME4121	Thermal	Solar Energy
ME4141	Production	Automation and Robotics
ME4161		Enterprise Resource Planning
ME4181		Production and Operation Management