

COURSE STRUCTURE

B.Tech. Mechanical Engineering

I Year

I Semester

S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1	English-I	4	-	-	3	30	70	100
2	Mathematics-I	4	-	-	3	30	70	100
3	Mathematics-II	4	-	-	3	30	70	100
4	Engineering Physics	4	-	-	3	30	70	100
5	Computer Programming	4	-	-	3	30	70	100
6	Environmental Studies	4	-	-	3	30	70	100
7	English Communication Skills Lab. -1	-	3	-	2	50	50	100
8	Engineering Physics Lab.	-	3	-	2	50	50	100
9	Computer Programming Lab.	-	3	-	2	50	50	100
Total		24	9	-	24	-	-	900

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COURSE STRUCTURE

B.Tech. Mechanical Engineering

I Year

II Semester

S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	English–II	4	-		3	30	70	100
2.	Mathematics–III	4	-		3	30	70	100
3.	Engineering Chemistry	4	-		3	30	70	100
4.	Engineering Mechanics	4	-		3	30	70	100
5.	Engineering Drawing	1	-	3	3	30	70	100
6.	Professional Ethics and Human Values	4	-		-	-	-	-
7.	English Communication Skills Lab.-2	-	3		2	50	50	100
8.	Engineering Chemistry Lab	-	3		2	50	50	100
9.	Engineering Workshop & IT Workshop	-	3		2	50	50	100
Total		21	9	3	21	-	-	800

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I Semester

S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	Metallurgy & Materials Science	4	-	-	3	30	70	100
2.	Mechanics of Solids	4	-	-	3	30	70	100
3.	Thermodynamics	4	-	-	3	30	70	100
4.	Managerial Economics & Financial Analysis	4	-	-	3	30	70	100
5.	Basic Electrical & Electronics Engineering	4	-	-	3	30	70	100
6.	Computer Aided Engineering Drawing Practice	1	-	3	3	30	70	100
7.	Basic Electrical & Electronics Engineering Lab	-	3	-	2	50	50	100
8.	Mechanics of Solids & Metallurgy lab	-	3	-	2	50	50	100
Total		21	6	3	22	-	-	800

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B.Tech. Mechanical Engineering

II Year					II Semester			
S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	Kinematics of Machinery	4	-	-	3	30	70	100
2.	Thermal Engineering-I	4	-	-	3	30	70	100
3.	Production Technology	4	-	-	3	30	70	100
4.	Fluid Mechanics & Hydraulic Machinery	4	-	-	3	30	70	100
5.	Industrial Engineering & Management	4	-	-	3	30	70	100
6.	Machine Drawing	1	-	3	3	30	70	100
7.	Fluid Mechanics & Hydraulic Machinery Lab.	-	3	-	2	50	50	100
8.	Production Technology Lab.	-	3	-	2	50	50	100
9.	SoftSkills-1	4	-	-	-	-	-	-
Total		25	6	3	22	-	-	800

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COURSE STRUCTURE

B.Tech. Mechanical Engineering

III Year					I Semester			
S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	Dynamics of Machinery	4	-	-	3	30	70	100
2.	Operations Research	4	-	-	3	30	70	100
3.	Design of Machine Members-I	4	-	-	3	30	70	100
4.	Instrumentation & Control Systems	4	-	-	3	30	70	100
5.	Thermal Engineering-II	4	-	-	3	30	70	100
6.	Metal Cutting & Machine Tools	4	-	-	3	30	70	100
7.	Machine Tools Lab.	-	3	-	2	50	50	100
8.	Thermal Engineering Lab.	-	3	-	2	50	50	100
9.	Mini Project*	-	-	-	2	100	-	100
Total		24	6	-	24	-	-	900

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*Student should carry **Mini Project** during summer vacation after II B.Tech.II Sem. Course work and it will be evaluated during III B.Tech. I Sem.

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COURSESTRUCTURE

B.Tech. Mechanical Engineering

III Year					II Semester			
S. No ·	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	Metrology	4	-	-	3	30	70	100
2.	Interactive Computer Graphics	4	-	-	3	30	70	100
3.	Design of Machine Members–II	4	-	-	3	30	70	100
4.	Robotics	4	-	-	3	30	70	100
5.	Heat Transfer	4	-	-	3	30	70	100
6.	Departmental Elective–I	4	-	-	3	30	70	100
7.	Heat Transfer Lab.	-	3	-	2	50	50	100
8.	Metrology & Instrumentation Lab.	-	3	-	2	50	50	100
9.	SoftSkills-2	4	-	-	-	-	-	-
Total		28	6	-	22	-	-	800

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25/5 Markman Lessons Chahal Ende
Chahal Pale 25/5 II - F B. Singh
Mr. F. M. P

COURSE STRUCTURE

B.Tech. Mechanical Engineering

IV Year

I Semester

S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	Power Plant Engineering	4	-	-	3	30	70	100
2.	Finite Element Methods	4	-	-	3	30	70	100
3.	CAD/CAM	4	-	-	3	30	70	100
4.	Unconventional Machining Processes	4	-	-	3	30	70	100
5.	Open Elective	4	-	-	3	30	70	100
6.	Departmental Elective-II	4	-	-	3	30	70	100
7.	CAM and Simulation Lab.	-	3	-	2	50	50	100
8.	Fabrication Project/ Term Paper #	-	1	-	1	50	-	50
9.	Summer Internship**	-	-	-	3	100	-	100
10.	IPR & Patents	4	-	-	-	-	-	-
Total		28	4	-	24	-	-	850

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Student should carry **Summer Internship during summer vacation after III B.Tech.II Sem. and it will be evaluated during IV B.Tech. I Sem.

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COURSE STRUCTURE

B.Tech. Mechanical Engineering

IV Year

II Semester

S. No.	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
		T	P	D		Int.	Ext.	Total
1.	Management Information Systems	4	-	-	3	30	70	100
2.	Green Energy & Systems	4	-	-	3	30	70	100
3.	Departmental Elective-III	4	-	-	3	30	70	100
4.	Departmental Elective-IV	4	-	-	3	30	70	100
5.	Project Work	-	-	-	9	60	140	200
Total		16	-	-	21	-	-	600

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LIST OF ELECTIVES

Open Electives:

1. Micro Electro Mechanical Systems
2. Material Handling Equipment
3. Nanotechnology

Department Elective 1:

1. Automobile Engineering
2. Methods Engineering and Work Design
3. Quality and Reliability Engineering
4. Advanced Foundry and Welding Technology

Department Elective 2:

1. Refrigeration & Air Conditioning
2. Automation in Manufacturing
3. Industrial Hydraulics & Pneumatics
4. Total Quality Management

Department Elective 3:

1. Non-destructive Testing Methods
2. Machine Vision & its Applications
3. Gas Dynamics & Jet Propulsion
4. Mechatronics

Department Elective 4:

1. Production Planning and Control
2. Advanced Optimization Techniques
3. Computational Fluid Dynamics
4. Tool Design



A collection of handwritten signatures in black ink, likely representing the faculty members who approved the elective list. The signatures are arranged in two rows. The top row includes signatures that appear to be 'S. J.', 'D. K. Kumar', 'D. S. S.', 'D. Chait', and 'S. S. S.'. The bottom row includes 'C. S. S.', 'P. S.', 'S. S.', 'S. S.', 'B. S. S.', and 'S. S. S.'.