

SURASHTRA UNIVERSITY – RAJKOT

MECHANICAL ENGINEERING

STRUCTURE

(B.O.S.) Dtd: 8/6/2005

Teaching & Examination Scheme

SURASHTRA UNIVERSITY - RAJKOT
MECHANICAL ENGINEERING

SYLLABUS

FIRST YEAR B.E.

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
101	Communication Skills	2	-	2	50	25	-	75
102	Mathematics-I	3	-	4	100	-	-	100
103	Engineering Drawing	3	4	4	100	100	-	200
104	Engineering Mechanics	2	1	3	100	25	-	125
105	Fundamentals of Civil Engineering	2	2	3	100	50	-	150
106	Fundamentals of Electrical Engineering	2	1	3	100	50	-	150
107	Elements of Mechanical Engineering	2	1	3	100	50	-	150
108	Computer Science	2	1	3	100	25	-	125
109	Workshop Practice		4	-		50	-	100
Total		18	14		750	375		1125

SEMESTER – III W.E.F- 2005-06 gradually

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
301	Mathematics - II	4	-	3	100	-	-	100
302	Strength of Material	4	2	3	100	25	25	150
303	Electrical Technology	4	2	3	100	25	25	150
304	Theory of Machine	4	2	3	100	25	25	150
305	Manufacturing Processes - I	4	2	3	100	25	25	150
306	Economics & Business Management	4	-	3	100	-	-	100
Total		24	8		600	100	100	800

SEMESTER - IV

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
401	Applied Electronics	4	2	3	100	25	25	150
402	Fluid Mechanics	4	2	3	100	25	25	150
403	Thermodynamics	4	2	3	100	25	25	150
404	Material Technology	4	2	3	100	25	25	150
405	Industrial Drafting & Machine Design	4	4	4	100	50	50	200
Total		20	12		500	150	150	800

SEMESTER – V**W.E.F. 2006-07**

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
501	Fluid Machines	4	2	3	100	25	25	100
502	Energy conversion – I	4	2	3	100	25	25	150
503	Dynamics of Machine – I	4	2	3	100	25	25	150
504	Mechanical Measurement	4	2	3	100	25	25	150
505	Manufacturing Processes - II	4	4	3	100	50	50	200
Total		20	12		600	150	150	800

SEMESTER - VI

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
601	Machine Design	4	4	4	100	50	50	200
602	Heat & Mass Transfer	4	2	3	100	25	25	150
603	Computer Programming	4	2	3	100	25	25	150
604	Dynamics of Machine – II	4	2	3	100	25	25	150
605	Production Technology	4	2	3	100	25	25	150
Total		20	12		500	150	150	800

SEMESTER – VII**W.E.F. – 2007 - 08**

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
701	Mechanical System Design	4	4	4	100	50	50	200
702	Control Engineering	4	-	3	100	-	-	100
703	Alternate Sources of Energy	4	2	3	100	25	25	150
704	Energy Conversion – II	4	2	3	100	25	25	150
705	Elective – I	4	2	3	100	25	25	150
706	Seminar	-	2	-	-	25	25	50
Total		20	12		500	150	150	800

✓ List of Electives:**Elective – I**

1. Computer Aided Design
2. Power Plant Engineering
3. Robotics
4. Advanced Machine Design
5. Design of Heat Transfer Equipment
6. Nano Technology

SEMESTER - VIII

Sr. No.	Subject	Teaching Scheme Hrs/Week		Examination Scheme				
		Theory	Prac/Tut.	Paper Hrs.	Theory Marks	T.W.	Pract.	Total Marks
801	Automobile Engineering	4	2	3	100	25	25	150
802	Industrial Engineering	4	2	3	100	25	25	150
803	Refrigeration & Air-Conditioning	4	2	3	100	25	25	150
804	Operation Research	4	2	3	100	25	25	100
805	Elective – II	4	2	3	100	25	25	150
806	Project	-	2		-	25	25	150
Total		20	12		500	150	150	800

✓ List of Electives:

Elective – II

1. Cryogenics
2. Advanced Automobile Engineering
3. Computer Aided Engineering
4. Computer Aided Manufacturing
5. Flexible Manufacturing Systems
6. Advanced Manufacturing Techniques