COURSE STRUCTURE

AND

DETAILED SYLLABUS

R16

MECHANICAL ENGINEERING

For

B.TECH. FOUR YEAR DEGREE COURSE

(Applicable for the students admitted into Academic Year 2016-17)

(I – IV Years Syllabus)

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES

Basar, Nirmal, Telangana - 504107

COURSE STRUCTURE (R16) FOR B.TECH.(REGULAR)

Applicable for the students of B.Tech. (Regular) from the Academic Year 2016-17 and onwards

I YEAR
I SEMESTER

Subject Code	Subject Name	L-T-P	Credits
MA1101	Mathematics-I	4-0-0	4
CY1001	Engineering Chemistry	4-0-0	4
CS1101	Programming in C	4-0-0	4
ME1101	Engineering Drawing and Computer Drafting-I	2-0-3	4
ME1001	Engineering Mechanics	4-0-0	4
HS1101	Communication Skills-I	2-0-0	1
CY1601	Engineering Chemistry Lab	0-0-3	2
CS1701	Programming in C Lab	0-0-3	2
ME1601	Engineering Workshop	0-0-3	2
	Total	20-0-12	27

I YEAR
II SEMESTER

Subject Code	Course Name	L-T-P	Credits
HS1001	English for Communication	4-0-0	3
MA1201	Mathematics-II	4-0-0	4
PH1001	Engineering Physics	4-0-0	4
CS1201	Scripting Languages	4-0-0	3
ME1201	Engineering Drawing and Computer Drafting-II	2-0-3	4
HS1201	Communication Skills-II	2-0-0	1
PH1601	Engineering Physics Lab	0-0-3	2
HS1601	English for Communication Lab	0-0-3	2
	Total	20-0-9	23

II YEAR
I SEMESTER

Subject Code	Course Name	L-T-P	Credits
MA2102	Mathematics -III	4-0-0	4
ME2101	Kinematics of Machinery	4-0-0	4
ME2102	Thermodynamics	4-0-0	4
ME2103	Mechanics of Solids	4-0-0	4
ME2104	Material Science & Metallurgy	4-0-0	4
HS2101	Soft Skills-I	2-0-0	1
ME2701	Mechanics of Solids Lab	0-0-3	2
ME2702	Material Science & Metallurgy Lab	0-0-3	2
ME2901	Seminar-I	0-0-2	1
	Total	22-0-8	26

II YEAR
II SEMESTER

Subject Code	Course Name	L-T-P	Credits
MA2202	Mathematics -IV	4-0-0	4
ME2201	Dynamics of Machinery	4-0-0	4
ME2202	Fluid Mechanics	4-0-0	4
ME2203	Manufacturing Processes	4-0-0	4
EE2001	Basic Electrical and Electronics Engineering	4-0-0	4
BM2201	Personality Development-I	2-0-0	1
EE2601	Electrical and Electronics Engineering Lab	0-0-3	2
ME2801	Manufacturing Processes Lab	0-0-3	2
ME2902	Seminar-II	0-0-2	1
	Total	22-0-8	26

III YEAR
I SEMESTER

Subject Code	Course Name	L-T-P	Credits
ME3101	Hydraulic Machines	4-0-0	4
ME3102	Metrology & Instrumentation	4-0-0	4
ME3103	Design of Machine Elements-I	4-0-0	4
BM3001	Managerial Economics and Financial Analysis	4-0-0	3
BSBE3001	Environmental science	4-0-0	3
BM3101	Personality Development-II	2-0-0	1
ME3701	Fluid Mechanics & hydraulic machines Lab	0-0-3	2
ME3702	Metrology & Instrumentation Lab	0-0-3	2
ME3703	Machine Drawing Practice	1-0-3	2
ME3901	Seminar-III	0-0-2	1
	Total	23-0-11	26

III YEAR
II SEMESTER

Subject Code	Course Name	L-T-P	Credits
ME3201	Machining and Machine Tools	4-0-0	4
ME3202	Applied Thermodynamics-I	4-0-0	4
ME3203	Design of Machine Elements-II	4-0-0	4
ME3204	Heat Transfer	4-0-0	4
CS3001	Object oriented programming through Java	4-0-0	4
HS3201	Soft Skills-II	2-0-0	1
ME3801	Heat Transfer Lab	0-0-3	2
CS3601	Object oriented programming through Java Lab	0-0-3	2
ME3902	Seminar-IV	0-0-2	1
ME3000	Comprehensive Viva-I		1
	Total	22-0-8	27

IV YEAR
I SEMESTER

Subject Code	Course Name	L-T-P	Credits
ME3900	Summer Internship	-	6
ME4101	Applied Thermodynamics-II	4-0-0	4
ME4102	CAD/CAM	4-0-0	4
ME4103	Refrigeration and Air Conditioning	4-0-0	4
ME440X	Elective-I	4-0-0	3
ME441X	Elective-II	4-0-0	3
ME4701	Applied Thermodynamics Lab	0-0-3	2
ME4702	CAD/CAM Lab	0-0-3	2
ME4703	Automation and Robotics Lab	0-0-3	2
	Total	20-0-9	30

Elective-I			
ME4401	Composite Materials	4-0-0	3
ME4402	Non-Traditional Manufacturing Processes	4-0-0	3
ME4403	Advanced Fluid Mechanics	4-0-0	3
ME4404	Tribology	4-0-0	3
IM4405	Production Planning & Control	4-0-0	3
Elective-II			
ME4411	Welding Technology	4-0-0	3
ME4412	Automobile Engineering	4-0-0	3
ME4413	Computational Fluid Dynamics	4-0-0	3
ME4414	Finite Element Methods in Engineering	4-0-0	3
ME4415	Experimental Stress Analysis	4-0-0	3

IV YEAR
II SEMESTER

Subject Code	Course Name	L-T-P	Credits
XXxxxx	Open Elective	4-0-0	3
ME4800	Project	0-0-24	16
ME4000	Comprehensive Viva-II		1
Total		4-0-24	20

L : Lecture hours per week
T: Tutorial hours per week
P: Practical hours per week
C: Credits per subject