

IIIT RK Valley
Rajiv Gandhi University of Knowledge Technologies-AP
Department of Mechanical Engineering
Course Structure from 2015 Batch Onwards

EI Semester-I

Course Code	Name of the Course	L	T&PS	P	Credits
MA1101	Engineering Mathematics I	2	2	0	4
CS6101	Programming in C and Data structures	2	2	0	4
CE1102	Engineering Drawing	2	2	0	4
ME1101	Engineering Mechanics	2	2	0	4
ME1102	Thermodynamics	2	2	0	4
ME1701	Engineering Workshop Laboratory	0	0	2	2
CS6701	Programming in C and Data structures Lab	0	0	2	2
EN502	Advanced English & Communication Skills Lab-I	0	0	2	2
Total Credits					26

EI Semester-II

Course Code	Name of the Course	L	T&PS	P	Credits
MA1201	Engineering Mathematics-II	2	2	0	4
EE1102	Basic Electrical and Electronics Engineering	2	2	0	4
ME1201	Mechanics of Solids	2	2	0	4
ME1202	Kinematics of Machines	2	2	0	4
ME1203	Material Science and Metallurgy	2	2	0	4
ME1801	Mechanics of Solids Laboratory	0	0	2	2
EE1702	Basic Electrical and Electronics Laboratory	0	0	2	2
EN602	Advanced English & Communication Skills Lab-II	0	0	2	2
Total Credits					26

E1 Summer Semester

Course Code	Name of the Course	L	T&PS	P	Credits
MA2206	Mathematics III-Probability&Statistics, Transform Calculus	2	2	0	4
ME1901	Mechanical Engineering Software Laboratory – I	0	0	2	2
Total Credits					6

E2 Summer Semester-I

Course Code	Name of the Course	L	T&PS	P	Credits
ME 2101	Dynamics of Machines	2	2	0	4
ME 2102	Design of Machine Elements I	2	2	0	4
ME 2103	Fluid Mechanics and Hydraulic Machinery	2	2	0	4
ME 2104	Manufacturing Processes	2	2	0	4
ME 2105	Machine Drawing	2	2	0	4
ME2703	Fluid Mechanics and Hydraulic Machinery Laboratory	0	0	2	2
ME2702	Material Science and Metallurgy Laboratory	0	0	2	2
EN702	Advanced English & Communication Skills Lab-III	0	0	2	2
Total Credits					26

E2 Summer Semester-II					
Course Code	Name of the Course	L	T&PS	P	Credits
ME2201	Metal Cutting and Machine Tools	2	2	0	4
ME2202	Thermal Engineering I	2	2	0	4
ME2203	Design of Machine Elements II	2	2	0	4
ME2204	Heat Transfer	2	2	0	4
ME2205	Meterology and Mechanical Measurements	2	2	0	4
ME2801	Manufacturing processes Laboratory	0	0	2	2
ME2802	Thermal Engineering Laboratory	0	0	2	2
EN802	Advanced English & Communication Skills Lab-IV	0	0	2	2
Total Credits					26
E2 Summer Semester					
Course Code	Name of the Course	L	T&PS	P	Credits
ME2901	Heat Transfer Laboratory	0	0	2	2
ME2902	Meterology and Mechanical Measurements Laboratory	0	0	2	2
Total Credits					4
E3 Semester-I					
Course Code	Name of the Course	L	T&PS	P	Credits
	Elective I	2	2	0	4
	Elective II	2	2	0	4
	Elective III+Lab	2	2	2	6
	Free Elective I	2	2	0	4
ME3700	Mini Project				4
Total Credits					22
E3 Semester-II					
Course Code	Name of the Course	L	T&PS	P	Credits
	Elective IV	2	2	0	4
	Elective V	2	2	0	4
	Elective VI	2	2	0	4
BMXXXX	Free Elective II	2	2	0	4
ME3800	Mini project				4
Total Credits					20
E3 Summer Semester					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3900	Summer internship				4
Total Credits					4
E4 Semester-I					
Course Code	Name of the Course	L	T&PS	P	Credits
	Elective VII	2	2	0	4
	Elective VIII	2	2	0	4
	Free Elective III	2	2	0	4
ME4700	Project				6
Total Credits					18

E4 Semester-II					
Course Code	Name of the Course	L	T&PS	P	Credits
HS3201	Environmental Science	2	2	0	4
	Elective IX	2	2	0	4
	Free Elective IV	2	2	0	4
ME4800	Project				6
ME4900	Community Service				2
Total Credits					20
					198
List of Electives in E3 & E4					
Elective I					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3501	Design Optimization	2	2	0	4
ME3502	Theory of Elasticity	2	2	0	4
ME3503	Thermal Engineering II	2	2	0	4
ME3504	Renewable Energy Engineering	2	2	0	4
ME3505	Advanced Materials Technology	2	2	0	4
ME3506	Industrial Engg. And Management	2	2	0	4
ME3507	Finite Element Methods	2	2	0	4
Elective II					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3508	Mechanical Vibrations	2	2	0	4
ME3509	Fatigue, Creep & Fracture	2	2	0	4
ME3510	Micro Electro Mechanical Systems	2	2	0	4
ME3511	Refrigeration and Air Conditioning	2	2	0	4
ME3512	Turbo Machinery	2	2	0	4
ME3513	Soft Computing	2	2	0	4
ME3514	Managerial Economy & Financial Accountancy	2	2	0	4
ME3515	Design Thinking	2	2	0	4
Elective III					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3516	Computational Fluid Dynamics	2	2	2	6
ME3517	CAD/CAM	2	2	2	6
ME3518	CNC Machining	2	2	2	6
ME3519	Signal Processing	2	2	2	6
Elective IV					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3601	Nonlinear Vibrations	2	2	0	4
ME3602	Experimental Stress Analysis	2	2	0	4
ME3603	System identification & condition monitoring	2	2	0	4
ME3604	Fluid Power Control	2	2	0	4
ME3605	Heat Exchangers Design	2	2	0	4

ME3606	Welding Technology	2	2	0	4
ME3607	Nano Technology	2	2	0	4
ME3608	Operations Research	2	2	0	4
Elective V					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3609	Random Vibrations	2	2	0	4
ME3610	Advanced Mechanics of Solids	2	2	0	4
ME3611	Image processing	2	2	0	4
ME3612	Multi-Phase flow heat Transfer	2	2	0	4
ME3613	Solar Energy Technology	2	2	0	4
ME3614	Advanced Manufacturing Processes	2	2	0	4
ME3615	Process Dynamics & Adaptive Control	2	2	0	4
Elective VI					
Course Code	Name of the Course	L	T&PS	P	Credits
ME3616	Mechanics of Composite Materials	2	2	0	4
ME3617	Theory of Plates & Shells	2	2	0	4
ME3618	Automobile Engineering	2	2	0	4
ME3619	Gas Dynamics	2	2	0	4
ME3620	Additive Manufacturing	2	2	0	4
ME3621	Advanced Fluid Mechanics	2	2	0	4
Elective VII					
Course Code	Name of the Course	L	T&PS	P	Credits
ME4501	Simulation of Mechanical Systems	2	2	0	4
ME4502	Design for Manufacturability	2	2	0	4
ME4503	Advanced Engg. Thermodynamics	2	2	0	4
ME4504	Nuclear Power Generation & Safety	2	2	0	4
ME4505	Surface Engineering	2	2	0	4
Elective VIII					
Course Code	Name of the Course	L	T&PS	P	Credits
ME4506	Control Systems & Engineering	2	2	0	4
ME4507	Rotor Dynamics	2	2	0	4
ME4508	Fuels & Combustion	2	2	0	4
ME4509	Advanced Metal Forming	2	2	0	4
ME4510	Robotics and Applications	2	2	0	4
Elective XI					
Course Code	Name of the Course	L	T&PS	P	Credits
ME4601	Tribology	2	2	0	4
ME4602	Vehicle Dynamics	2	2	0	4
ME4603	Turbulent Flows	2	2	0	4
ME4604	Inspection and Quality Control	2	2	0	4
ME4605	Biomechanics	2	2	0	4