

**M. Tech (Engineering Design) - 2015 Batch**

**COURSE COMPONENTS**

**Table 1**

<b>S. No.</b>	<b>Sub. Code</b>	<b>Subjects</b>	<b>Credit</b>
1	14MA3008	Computational Mathematics	3:0:0
2	14CE3006	Finite Element Methods in Engineering	3:0:0
3	14MA3018	Optimization Techniques	3:0:0
4	14ME3006	Computer Applications in Design	3:0:0
5	14ME3007	Engineering Materials and Applications	3:0:0
6	14ME3008	Advanced Strength of Materials	3:0:0
7	14ME3011	Computer Aided Engineering Laboratory	0:0:2
8	14ME3026	Advanced Mechanism Design	3:0:0
9	14ME3028	Advanced Mechanical Vibrations	3:0:0
10	14ME3033	Engineering Product Design and Development Strategies	3:0:0
11	14ME3039	Experimental Stress Analysis	3:0:0
12	14ME3040	Engineering Fracture Mechanics	3:0:0
13	15ME3001	Vibration Laboratory I	0:0:1
		<b>Total Subject Credits</b>	<b>36</b>
14	14VE3001/3002	Value Education III/IV	2
15	PSP3998	Part Semester Project	12
16	FSP3999	Full Semester project	20
		<b>Total</b>	<b>70</b>

Sl.No	Sub. Code	Soft Core – [Engineering Design] (min of 12 credits to be earned)	Credits
1	14ME3023	Design of Mechanical System Elements	3:0:0
2	14ME3024	Design for Manufacturing and Assembly	3:0:0
3	14ME3027	Industrial Tribology	3:0:0
4	14ME3037	Quality Concepts in Design	3:0:0
5	15ME3002	Rotor Dynamics	3:0:0
6	15ME3003	Modal Analysis of Mechanical Systems	3:0:0
		<b>Total</b>	<b>18</b>

**M. Tech. (Thermal Engineering) - 2015 Batch**

**COURSE COMPONENTS**

S. No.	Sub. Code	Subjects	Credit
1	14CE3006	Finite Element Methods in Engineering	3:0:0
2	14MA3008	Computational Mathematics	3:0:0
3	14ME3001	Combustion in Engines	3:0:0
4	14ME3002	Advanced Thermodynamics	3:0:0
5	14ME3003	Advanced Fluid Mechanics	3:0:0
6	14ME3004	Design of Thermal Power Equipments	3:0:0
7	14ME3011	Computer Aided Engineering Laboratory	0:0:2
8	14ME3017	Advanced Heat Transfer Laboratory	0:0:1
9	14ME3019	Energy Conservation and Management	3:0:0
10	14ME3022	Advanced Heat Transfer	3:0:0
11	15ME3008	Advanced Instrumentation in Thermal Engineering	3:0:0
12	15ME3009	Advanced Refrigeration and Air-Conditioning Systems	3:0:0
13	15ME3010	Design and Analysis of Heat Exchangers	3:0:0
		<b>Total Subject Credits</b>	<b>36</b>
14	14VE3001/ 14VE3002	Value Education III/IV	2
15	PSP3998	Part Semester Project	12
16	FSP3999	Full Semester project	20
		<b>Total</b>	<b>70</b>

Sl.No	Sub. Code	Soft Core – [Thermal Engineering] (min of 12 credits to be earned)	Credits
1	14AE3002	Advanced Computational Fluid Dynamics	3:0:0
2	14AE3010	Advanced Computational Fluid Dynamics Lab	0:0:1
3	14ME3036	Biomass Energy	3:0:0
4	15ME3004	Nuclear Power Engineering	3:0:0
5	15ME3005	Solar Energy Utilization	3:0:0
6	15ME3011	Advanced Turbo Machinery	3:0:0
7	15ME3012	Two Phase Flow and Heat Transfer	3:0:0
		<b>Total</b>	<b>19</b>

**M. Tech (Advanced Manufacturing Technology) - 2015 Batch**

**COURSE COMPONENTS**

<b>S. No.</b>	<b>Sub. Code</b>	<b>Subjects</b>	<b>Credit</b>
1	14MA3008	Computational Mathematics	3:0:0
2	14ME3005	Computer Integrated Manufacturing Systems	3:0:0
3	14ME3007	Engineering Materials and Applications	3:0:0
4	14ME3011	Computer Aided Engineering Laboratory	0:0:2
5	14ME3012	CAD/CAM Laboratory	0:0:2
6	14ME3015	Theory of Metal Cutting	3:0:0
7	14ME3016	Advanced Metrology	3:0:0
8	14ME3018	Automation and Robotics Laboratory	0:0:2
9	14ME3020	Advanced Manufacturing Processes	3:0:0
10	14ME3024	Design for Manufacturing and Assembly	3:0:0
11	14ME3030	Industrial Robotics	3:0:0
12	14ME3034	Control of CNC Machine tools	3:0:0
13	15ME3007	Advanced Tool Design	3:0:0
		<b>Total Subject Credits</b>	36
14	14VE3001/ 14VE3002	Value Education III/IV	2
15	PSP3998	Part Semester Project	12
16	FSP3999	Full Semester project	20
		<b>Total</b>	<b>70</b>

<b>Sl. No</b>	<b>Sub. Code</b>	<b>Soft Core – [Manufacturing] (min of 12 credits to be earned)</b>	<b>Credits</b>
1	14CE3006	Finite Element Methods in Engineering	3:0:0
2	14MA3018	Optimization Techniques	3:0:0
3	14ME3006	Computer Applications in Design	3:0:0
4	14ME3025	Manufacturing System and Simulation	3:0:0
5	14ME3037	Quality Concepts in Design	3:0:0
6	15ME3006	Design of Fluid Power Systems	3:0:0
		<b>Total</b>	<b>18</b>

**Post Graduate Diploma in  
Advanced Manufacturing Technologies (PGDAMT) - 2015 Batch**

**COURSE COMPONENTS**

<b>S. No.</b>	<b>Sub. Code</b>	<b>Subjects</b>	<b>Credit</b>
1	14ME3005	Computer Integrated Manufacturing Systems	3:0:0
2	14ME3012	CAD/CAM Laboratory	0:0:2
3	14ME3016	Advanced Metrology	3:0:0
4	14ME3018	Automation and Robotics Laboratory	0:0:2
5	14ME3020	Advanced Manufacturing Processes	3:0:0
6	14VE3001/ 14VE3002	Value Education III/IV	2:0:0
7	15ME3006	Design of Fluid Power Systems	3:0:0
8	15ME3007	Advanced Tool Design	3:0:0
9	FSP3999	Full Semester Project	0:0:20
<b>Total</b>			<b>41</b>

**Post Graduate Diploma in  
Petroleum and Natural Gas Flow Measurements and Instrumentation - 2015 Batch**

**COURSE COMPONENTS**

<b>S. No.</b>	<b>Sub. Code</b>	<b>Subjects</b>	<b>Credit</b>
1	14AE3010	Advanced Computational Fluid Dynamics Lab	0:0:1
2	14ME3003	Advanced Fluid Mechanics	3:0:0
3	14ME3007	Engineering Materials and Applications	3:0:0
4	14ME3016	Advanced Metrology	3:0:0
5	14ME3018	Automation and Robotics Laboratory	0:0:2
6	14VE3001/ 14VE3002	Value Education III/IV	2:0:0
7	15ME3006	Design of Fluid Power Systems	3:0:0
8	15ME3008	Advanced Instrumentation in Thermal Engineering	3:0:0
9	FSP3999	Full Semester Project	0:0:20
<b>Total</b>			<b>40*</b>

\* towards the requirement of balance of one credit, student may choose Industrial Training or Mini Project.