M. Tech (Engineering Design) - 2017 Batch

COURSE COMPONENTS
Table 1

S. No.	Course Code	Name of the Course	Credits
1	17MA3008	Computational Mathematics	3:0:0
2	17ME3001	Finite Element Methods in Engineering	3:0:0
3	17ME3002	Computer Applications in Design	3:0:0
4	17ME3003	Advanced Mechanical Vibrations	3:0:0
5	17ME3004	Advanced Strength of Materials	3:0:0
6	17ME3005	Engineering Materials and Applications	3:0:0
7	17ME3006	Advanced Mechanism Design	3:0:0
8	17ME3007	Experimental Stress Analysis	3:0:0
9	17ME3008	Engineering Product Design and Development Strategies	3:0:0
10	17MA3018	Optimization Techniques	3:0:0
11	17ME3009	Engineering Fracture Mechanics	3:0:0
12	17ME3040	Advanced Computer Aided Engineering Laboratory	0:0:2
13	17ME3039	Vibration Laboratory	0:0:1
		Total Subject Credits	**36**
14	17VE3002	Value Education	0:0:2
15	FSP3999	Full Semester project	20
16	PSP3998	Part Semester Project	12
		Total	**70**

Table 2

Professional Elective

Sl.No	Course Code	Professional Elective – [Engineering Design] (min of 12 Credits to be earned)	Credits
1	17ME3010	Design of Mechanical System Elements	3:0:0
2	17ME3011	Industrial Tribology	3:0:0
3	17ME3012	Quality Concepts in Design	3:0:0
4	17ME3013	Rotor Dynamics	3:0:0
5	17ME3014	Design for Manufacturing and Assembly	3:0:0
6	17ME3015	Modal Analysis of Mechanical Systems	3:0:0
		Total	**18**

M. Tech (Thermal Engineering) - 2017 Batch
COURSE COMPONENTS

Table 1

S. No.	Course Code	Name of the Course	Credits
1	17MA3008	Computational Mathematics	3:0:0
2	17ME3001	Finite Element Methods in Engineering	3:0:0
3	17ME3025	Advanced Thermodynamics	3:0:0
4	17ME3026	Advanced Heat Transfer	3:0:0
5	17ME3027	Advanced Fluid Mechanics	3:0:0
6	17ME3028	Design of Thermal Power Equipment	3:0:0
7	17ME3029	Combustion in Engines	3:0:0
8	17ME3030	Energy Conservation and Management	3:0:0
9	17ME3031	Advanced Instrumentation in Thermal Engineering	3:0:0
10	17ME3032	Advanced Refrigeration and Air-Conditioning Systems	3:0:0
11	17ME3033	Design and Analysis of Heat Exchangers	3:0:0
12	17ME3042	Advanced Heat Transfer Laboratory	0:0:1
13	17ME3044	Advanced Computational Fluid Dynamics Lab	0:0:2
		Total Subject Credits	36
	17VE3002	Value Education	0:0:2
14	FSP3999	Full Semester project	20
15	PSP3998	Part Semester Project	12
		Total	**70**

Table 2

Professional Elective

Sl.No	Course Code	Professional Elective – [Thermal Engineering] (min of 12 Credits to be earned)	Credits
1	17AE3006	Advanced Computational Fluid Dynamics	3:0:0
2	17ME3034	Biomass Energy	3:0:0
3	17ME3035	Advanced Turbomachinery	3:0:0
4	17ME3036	Two Phase Flow and Heat Transfer	3:0:0
5	17ME3037	Solar Energy Utilization	3:0:0
6	17ME3038	Nuclear Power Engineering	3:0:0
		Total	**18**

M. Tech (Advanced Manufacturing Technology) - 2017 Batch

COURSE COMPONENTS

Table 1

S. No.	Course Code	Name of the Course	Credits
1	17MA3008	Computational Mathematics	3:0:0
2	17ME3005	Engineering Materials and Applications	3:0:0
3	17ME3012	Quality Concepts in Design	3:0:0
4	17ME3014	Design for Manufacturing and Assembly	3:0:0
5	17ME3016	Advanced Manufacturing Processes	3:0:0
6	17ME3017	Control of CNC Machine tools	3:0:0
7	17ME3018	Theory of metal cutting	3:0:0
8	17ME3019	Computer Integrated Manufacturing Systems	3:0:0
9	17ME3020	Advanced Metrology and Measurement Systems	3:0:0
10	17ME3021	Industrial Robotics	3:0:0
11	17ME3022	Advanced Tool Design	3:0:0

12	17ME3041	CAD/CAM Laboratory	0:0:2
13	17ME3043	Automation and Robotics Laboratory	0:0:1
		Total Subject Credits	**36**
14	17VE3002	Value Education	0:0:2
15	17ME3999	Full Semester project	20
16	17ME3998	Part Semester Project	12
		Total	**70**

Table 2

Professional Elective

Sl. No	Course Code	Professional Elective – [Manufacturing] (min of 12 Credits to be earned)	Credits
1	17ME3001	Finite Element Methods in Engineering	3:0:0
2	17ME3002	Computer Applications in Design	3:0:0
3	17ME3008	Engineering Product Design and Development Strategies	3:0:0
4	17ME3023	Design of Fluid Power Systems	3:0:0
5	17ME3024	Manufacturing System and Simulation	3:0:0
6	17MA3018	Optimization Techniques	3:0:0
		Total	**18**

M. Tech (Advanced Manufacturing Technology) - Lateral Students 2017 Batch
(Eligibility: PGD in Advanced Manufacturing Technology)

COURSE COMPONENTS

Table 1

PROGRAM CORE

S.No.	Course Code	Name of the Course	Credits
1	17MA3008	Computational Mathematics	3:0:0
2	17ME3005	Engineering Materials and Applications	3:0:0
3	17ME3014	Design for Manufacturing and Assembly	3:0:0
4	17ME3017	Control of CNC Machine tools	3:0:0
5	17ME3018	Theory of Metal cutting	3:0:0
6	17ME3021	Industrial Robotics	3:0:0
7	17ME3040	Advanced Computer Aided Engineering Laboratory	0:0:2
		Total Credits	**20**
8	PSP3998	Part Semester Project	12
		Total	**32**

Table 2

Sl.No	Course Code	Professional Elective – [Manufacturing Engineering] (min of 14 Credits to be earned)	Credits
1	17ME3001	Finite Element Methods in Engineering	3:0:0
2	17MA3018	Optimization Techniques	3:0:0
3	17ME3002	Computer Application in Design	3:0:0
4	17ME3024	Manufacturing System and simulation	3:0:0
5	17ME3012	Quality Concepts in Design	3:0:0
6	17ME3008	Engineering Product Design and Development Strategies	3:0:0
7	17ME3011	Industrial Tribology	3:0:0
		Total	**21**

Post Graduate Diploma in Advanced Manufacturing Technologies (PGDAMT) (from 2017 Batch)

COURSE COMPONENTS
Table 1

S. No.	Course Code	Name of the Course	Credits
1	17ME3016	Advanced Manufacturing Processes	3:0:0
2	17ME3019	Computer Integrated Manufacturing Systems	3:0:0
3	17ME3023	Design of Fluid Power Systems	3:0:0
4	17ME3022	Advanced Tool Design	3:0:0
5	17VE3002	Value Education	0:0:2
6	17ME3041	CAD/CAM Laboratory	0:0:2
7	17ME3043	Automation and Robotics Laboratory	0:0:1
8	17ME3020	Advanced Metrology and Measurement Systems	3:0:0
9	FSP3999	Full Semester Project	0:0:20
10	ITP3901	Industrial Training	0:0:1
		Total	**41**

Post Graduate Diploma in Petroleum and Natural Gas Flow Measurements and Instrumentation (from 2017 Batch)

COURSE COMPONENTS

Table 1

S. No.	Course Code	Name of the Course	Credits
1	17ME3005	Engineering Materials and Applications	3:0:0
2	17ME3020	Advanced Metrology and Measurement Systems	3:0:0
3	17ME3023	Design of Fluid Power Systems	3:0:0
4	17ME3027	Advanced Fluid Mechanics	3:0:0
5	17ME3031	Advanced Instrumentation in Thermal Engineering	3:0:0
6	17ME3044	Advanced Computational Fluid Dynamics Laboratory	0:0:2
7	17ME3043	Automation and Robotics Laboratory	0:0:1
8	17VE3002	Value Education	0:0:2
9	FSP3999	Full Semester Project	0:0:20
10	ITP3901	Industrial Training	0:0:1
		Total	**41**