

M. Tech. Mechanical Engineering Design (AY: 2017-2018)

SEMESTER I

Course Code	Course Title	Teaching Scheme Hours/Week			Examination Scheme				Marks	Credit
		Lecture	Tutorial	Practical	In Semester	End Semester	Oral	Practical		
MED1101	Advanced Mathematics and Numerical Techniques	3	1	0	50	50	0	0	100	4
MED1102	Design of Experiments and Research Methodology	3	1	0	50	50	0	0	100	4
MED1103	Advance Mechanics of Materials	3	0	0	50	50	0	0	100	3
MED1104	Design Of Tribosystems	3	0	0	50	50	0	0	100	3
PEMED1101	Elective I	3	0	0	50	50	0	0	100	3
MED1105	Design Of Tribosystems Lab	0	0	2	0	0	25	0	25	1
MED1106	Advance Mechanics of Materials Lab	0	0	2	0	0	0	25	25	1
PEMED1102	Elective I Lab	0	0	2	0	0	25	0	25	1
Total		15	2	6	250	250	50	25	575	20

Elective I: 1. Transport Phenomena 2. Advance Materials Technology 3. Power Train design

SEMESTER II

Course Code	Course Title	Teaching Scheme Hours /Week			Examination Scheme				Marks	Credit
		Lecture	Tutorial	Practical	In Semester	End Semester	Oral	Practical		
MED1201	Automation and Control Technology	3	0	0	50	50	0	0	100	3
MED1202	Vibration and Acoustic	3	0	0	50	50	0	0	100	3
MED1203	Finite Element Analysis	3	0	0	50	50	0	0	100	3
MED1204	Design & Optimization	3	0	0	50	50	0	0	100	3
PEMED1201	Elective II	3	0	0	50	50	0	0	100	3
MED1205	Automation and Control Technology Lab	0	0	2	0	0	25	0	25	1
MED1206	Vibration and Acoustic Lab	0	0	2	0	0	25	0	25	1
MED1207	Finite Element Analysis Lab	0	0	2	0	0	0	25	25	1
MED1208	Seminar	0	2	0	0	0	50	0	50	2
AC 1201	Audit Course*	0	0	2	0	0	0	0	0	0
Total		15	2	8	250	250	100	25	625	20

Elective II:

1. Computational Fluid Dynamics
2. Design for Manufacture and Assembly
3. Heat Exchanger Design

Audit Course

1. Soft Skills and Business Communication
2. Entrepreneurship Development

SEMESTER III

Course Code	Course Title	Teaching Scheme Hours /Week			Examination Scheme			Marks	Credit
		Lecture	Tutorial	Practical	In Semester	End Semester	Oral		
HSEL 2101	Elective III	3	1	0	50	50	0	100	4
OE 2101	Elective IV	3	0	0	50	50	0	100	3
MED 2101	Project Stage I	0	0	18	125	0	100	225	9
Total		6	1	18	225	100	100	425	16

Elective III:

1. Environmental Studies
2. Engineering Economics and Project Management
3. Fundamentals of Disaster Management

Elective IV:

1. Modal Analysis
2. Vehicle Dynamics
3. Reliability-Base Design Optimization

SEMESTER IV

Course Code	Course Title	Teaching Scheme Hours /Week			Examination Scheme			Marks	Credit
		Lecture	Tutorial	Practical	In Semester	End Semester	Oral		
MED2201	Project Stage II	0	0	28	200	0	150	350	14
Total		0	0	28	200	0	150	350	14