

PROGRAMME : MASTER OF SCIENCE (MECHANICAL ENGINEERING) (MSME)
TYPE : FULL TIME & PART TIME

TYPE OF COURSES	CREDIT HOURS		
	PROGRAM STRUCTURE (MODE)		
	COURSEWORK ONLY (W)	COURSEWORK AND RESEARCH (C)	RESEARCH ONLY (T)
A. Core Course	15 Credits Hours	9 Credits Hours	0 credit
B. Elective by Specialization	9 Credits Hours	6 Credits Hours	N/A
C. University Required Course	6 Credits Hours	6 Credits Hours	0 Credit Hour
D. Research Courses	12 Credits Hours	21credit hours	42Credit hours
TOTAL	42 Credits Hours	42 credit hours	42 credit hours

A. CORE COURSES

Select 3 courses for Mixed Mode, Select 5 courses by Course Mode

No.	Course Code	Course Title	Credit Hours	Pre-Requisite
1.	MECH 7537	Advanced Fluid Dynamics (C &W)	3	
2.	MECH 7521	Structural Analysis (C&W)	3	
3	MECH 7525	Heat and Mass Transfer (C&W)	3	
4.	MECH 7539	Applied Engineering Mathematics (W)	3	
5.	MECH 7401	Applied Finite Element Methods (W)	3	

B. Elective by Specialization

Select 2 courses for Mixed Mode, Select 3 courses by Course Mode

No.	Course Code	Course Title	Credit Hours	Pre-Requisite
Structure				
1	MECH 7501	Smart Structures	3	
2	MECH 7503	Composites Structures	3	
3	MECH 7527	Biomechanics	3	
4	MECH 7529	Applied Elasticity	3	
5	MECH 7531	Applied Plasticity	3	
6	MECH 7505	Micro-Electromechanical System (MEMS)	3	
7	MECH 7507	Nanotechnology	3	
8	MECH 7402	Advanced Vibration	3	
9	MECH 7401	Applied Finite Element Methods	3	
10	MECH 7539	Applied Engineering Mathematics	3	

11	MECH 7533	Special Topics in Mechanical Engineering*	3	
Aerospace				
1	MECH 7503	Composites Structures	3	
2	MECH 7523	Experimental Fluid Dynamics	3	
3	MECH 7513	Modern Control Systems	3	
4	MECH 7517	Combustion	3	
5	MECH 7519	Propulsion Systems	3	
6	MECH 7511	Computational Fluid Dynamics	3	
7	MECH 7401	Applied Finite Element Methods	3	
8	MECH 7539	Applied Engineering Mathematics	3	
9	MECH 7533	Special Topics in Mechanical Engineering*	3	
Thermofluid and Renewable Energy				
1	MECH 7523	Experimental Fluid Dynamics	3	
2	MECH 7517	Combustion	3	
3	MECH 7511	Computational Fluid Dynamics	3	
4	MECH 7509	Renewable Energy	3	
5	MECH 7510	Solar Energy System	3	
6	MECH 7537	Two Phase Flow and Heat Transfer	3	
7	MECH 7539	Applied Engineering Mathematics	3	
8	MECH 7533	Special Topics in Mechanical Engineering*	3	

C. UNIVERSITI REQUIRED COURSE

No.	Course Code	Course Title	Credit Hours	Pre-requisite
1	RKGS 7000	Values, Technology and Society (For W& C)	3	
2	RKGS 7001	Values, Technology and Society (For T)	0	
3	MECH 7950	Research Methodology and Seminar (For W &C)	3	
4	MECH 7951	Research Methodology and Seminar (For W &C)	0	

D. RESEARCH COURSES

No.	Course Code	Course Title	Credit Hours	Pre-requisite
Coursework and Research (21 Credit Hours)				
1	MECH 7994	Research Proposal	0	
2	MECH 7998	Dissertation	21	MECH 7994
Research only (42 credit hours)				
1	MECH 7994	Research Proposal	0	
2	MECH 7999	Thesis	42	MECH 7995
3	MECH 7995	Comprehensive Exam	0	MECH 7994
Course Mode (12 Credit Hours)				
1	MECH 7997	Project Paper	12	

