1. **B.Tech Mechanical Engineering**

Breakup of Courses

Sl. No	Category	Total number of Credits
1	University Core	48
2	University Elective	3
3	Programme Core	114
4	Programme Elective	15
	Minimum Total Number of Credits	**180**

Category Wise breakup of Courses

Category	Recommended credits	%	Recommended %
Engineering	123	68.3	66
Humanities	13	7.2	8
Management	9	5.0	6
Sciences	35	19.5	20
TOTAL	**180**	**100**	**100**

University Elective

Course Title	L	T	P	C
University Elective	3	0	0	3
				3

CURRICULUM

Abbreviations	
Automotive and Thermal Engineering Division	AT
Design and Mechatronics Division	DM
Production and Industrial Engineering Division	PI
Project Work	PW

University Core

Course Code	Course Title	L	T	P	C	Category/ Division
ENG103	Communicative English –I	2	0	2	3	Humanities
CHY103	Chemistry –I	3	0	2	4	Science
PHY101	Engineering Physics –I	3	0	2	4	Science
MAT101	Engineering Mathematics – I	3	1	0	4	Science
CSE101	Computer Programming and Problem Solving	2	0	2	3	Engineering
EEE101	Basic Electrical and Electronics Engineering	3	0	2	4	Engineering
EVS101	Environmental Studies	3	0	0	3	Science
MEE101	Engineering Graphics-I	0	0	4	2	DM
ENG104	Communicative English –II	2	0	2	3	Humanities
CHY104/ CHY105/ CHY106/ CHY107	Biological Chemistry/ Nanoscience and Nanotechnology/ Organic Chemistry/ Physical Chemistry	3	0	2	4	Science
PHY102	Engineering Physics –II	3	0	2	4	Science
MEE102	Workshop Practice-I	0	0	2	1	PI
FRE101/ GER101/ ESP101/ JAP101	Foreign Language	2	0	0	2	Humanities
MGT301	Ethics and Values	3	0	0	3	Management
GUC201	Co/Extra-Curricular Activity	-	-	-	2	Humanities
GUC301	Comprehensive Examination	-	-	-	2	Engineering
					48	

Programme Core

Course Code	Course Title	L	T	P	C	Category/ Division
HUM201	Psychology and Sociology	3	0	0	3	Humanities
MAT102	Engineering Mathematics-II	3	1	0	4	Science
MAT201	Engineering Mathematics-III	3	1	0	4	Science
MAT202	Applied Numerical Methods	3	0	0	4	Science
MEE103	Engineering Graphics – II	0	0	4	2	DM
MEE104	Workshop Practice – II	0	0	2	1	PI
MEE201	Engineering Mechanics	3	1	0	4	DM
MEE202	Materials Engineering and Technology	2	1	2	4	PI
MEE203	Engineering Thermodynamics	2	1	0	3	AT

MEE204	Fundamentals of Manufacturing Processes	3	0	2	4	PI
MEE205	Computer Aided Machine Drawing	0	0	4	2	DM
MEE206	Instrumentation and Control Engineering	2	1	2	4	DM
MEE207	Fluid Mechanics	2	1	2	4	AT
MEE208	Strength of Materials	2	1	2	4	DM
MEE209	Kinematics of Machinery	2	1	0	3	DM
MEE210	Thermal Engineering Systems	2	1	2	4	AT
MEE211	Machining Processes and Metrology	3	0	2	4	PI
MEE212	Power Plant Engineering	2	1	0	3	AT
MEE301	Dynamics of Machinery	2	1	2	4	DM
MEE302	Design of Machine Elements	2	1	0	3	DM
MEE303	Heat and Mass Transfer	2	1	2	4	AT
MEE304	Turbo-Machines	2	1	2	4	AT
MEE305	Hardware Project	0	0	4	2	PW
MEE306	Design of Transmission Systems	3	1	0	4	AT
MEE307	CAD/CAM	2	0	4	4	DM/PI
MEE308	Industrial Engineering and Management	3	0	0	3	PI
MEE350	Industrial Internship	-	-	-	2	PW
MEE401	Operations Research	2	1	0	3	PI
MEE450	Project Work	-	-	-	20	PW

Programme Electives

Course Code	Course Title	L	T	P	C	Division
MEE213	Robotics	3	0	0	3	DM
MEE214	Mechatronics	3	0	0	3	DM
MEE215	Renewable Energy Sources	3	0	0	3	AT
MEE216	Programmable Automation Controllers	2	1	0	3	DM
MEE217	Internal Combustion Engines	3	0	0	3	AT
MEE218	Surface Modification Technologies	3	0	0	3	PI
MEE219	Nanomaterials /MEMS	3	0	0	3	PI
MEE220	Design of Composite Materials	2	1	0	3	DM
MEE221	Tribology	2	1	0	3	AT
MEE222	Product Design For Manufacturing	2	1	0	3	PI
MEE223	Metal Casting Technology	3	0	0	3	PI
MEE224	Metal Forming Theory and Practice	3	0	0	3	PI
MEE225	Fluid Power Systems	3	0	0	3	AT
MEE226	Cryogenic Engineering	2	1	0	3	AT
MEE312	Acoustics and Noise Control Engineering	2	1	0	3	AT
MEE313	Product Design	2	1	0	3	DM
MEE314	Tool Design	2	1	0	3	DM
MEE315	Finite Element Analysis	2	1	0	3	DM

MEE316	Mechanical Vibrations	2	1	0	3	DM
MEE317	Non-Destructive Evaluation and Testing	3	0	0	3	DM
MEE318	Production Planning and Control	3	0	0	3	PI
MEE319	Lean Enterprises and New Manufacturing Technology	3	0	0	3	PI
MEE320	Modeling and Simulation of Manufacturing Systems	3	0	0	3	PI
MEE321	Gas Dynamics and Jet Propulsion	2	1	0	3	AT
MEE322	Fuels and Combustion	3	0	0	3	AT
MEE323	Computational Fluid Dynamics	2	1	0	3	AT
MEE324	Refrigeration and Air Conditioning	2	1	0	3	AT
MEE325	Solar Thermal Power Engineering	3	0	0	3	AT
MEE326	Nuclear Power Engineering	3	0	0	3	AT
MEE309	New Venture Planning and Management	3	0	0	3	PI
MEE310	Facilities and Process Planning	3	0	0	3	PI
MEE311	Rapid Manufacturing Technologies	3	0	0	3	PI
MEE327	Introduction to Biomaterials Science	3	0	0	3	PI
MEE328	Introduction to Tribology	3	0	0	3	AT
MEE403	Welding Engineering	3	0	0	3	PI
MEE404	Automobile Engineering	3	0	0	3	AT
MEE405	Advanced Machining Processes	2	1	0	3	PI
MEE402	Total Quality Management and Reliability	3	0	0	3	PI