



School of Mechanical Engineering
Program Structure of B. Tech. Four Year Full Time Degree
(Entry Batch 2019-23 Onwards)

1 st Semester								2 nd Semester							
Sl. No.	AICTE CODE	Course Code	Course Title	L	T	S/P	C	Sl. No.	AICTE Code	Course Code	Course Title	L	T	S/P	C
1.	BSC	MTL1012	Engineering Mathematics-I	3	0	0	3	1	BSC	MTL1026	Engineering Mathematics-II	3	0	0	3
2	ESC	ECL1010	Basic Electronics	3	0	2	4	2	ESC	MEP 1116	Engineering Graphics	1	0	3	2.5
3	BSC	PHL1012	Engineering Physics	3	0	2	4	3	ESC	CSL3029	Programming in PYTHON-I(PL-2)PCC	2	0	4	4
4	ESC	CSL1022	Introduction to 'C' Programming-	3	0	2	4	4	BSC	MEL1112	Materials Science and Engineering	3	0	2	4
5	HSMC	LNL1411	Communication Skills	2	0	2	3	5	ESC	MEL1012	Engineering Mechanics	3	1	0	4
6								6	MC	PCL 1067	Discourse on Human Virtues - AICTE MC-HS	3	0	0	3
7	MC		Induction Program						PCC	MEL2211	Thermodynamics	3	1	0	4
8	MC		NSS (Non-Credit)-UGC												
9								7		LNP1142	Language lab	0	0	2	1
	Lab														
10	ESC	MEP1043	Mechanical Workshop	0	0	3	1.5								
			TOTAL	14	0	11	19.5				TOTAL	18	2	11	
Total Credits				19.5				Total Credits				25.5			

3 rd Semester								4 th Semester							
Sl. No.	AICTE code	Course Code	Course Title	L	T	S/P	C	Sl. No	AICTE code	Course Code	Course Title	L	T	S/P	C
1	HSMC	PCL2042	Introduction to Logic-AICTE	3	0	0	3	1	PCC	MEL 2232	Fluid Machines	3	1	2	5
2	PCC	MEL2015	Kinematics of Machines	3	1	0	4	2	PCC	MEL 2212	Thermal Engineering	3	0	2	4
3	PCC	MEL2231	Fluid Mechanics	3	1	2	5	3	PCC	MEL 2113	Manufacturing Processes	3	0	2	4
4	PCC	MEL2014	Strength of Materials	3	1	2	5	4	PCC	MEL 2018	Dynamics of Machines	3	1	2	5
								5	PCC	MEL 2016	Mechanics of Materials	3	1	0	4
6	PCC	MEL2013	Machine Drawing	1	0	3	2.5	6	PCC	MEL3222	Internal Combustion Engines	3	0	0	3
7	MC	BTL2304	Environmental Studies-AICTE	3	0	0	NC	7							
			TOTAL	18	3	7	19.5				Total	20	3	8	25
Total Credits							19.5	Total Credits							25

5 th Semester								6 th Semester							
Sl. No.	AICTE code	Course Code	Course Title	L	T	S/P	C	Sl. No.	AICTE code	Course Code	Course Title	L	T	S/P	C
1	PCC	MEL3221	Heat and Mass Transfer	3	1	2	5	1	OEC		Open Elective-I	3	0	0	3
2	PCC	MEL3131	Industrial Engineering	3	0	0	3	2	ESC	MEL3121	Metrology and Measurements	3	0	2	4
3	PCC	MEL 2017	Machine Design - I	3	0	0	3	3			Automobile Engineering	3	0	2	4
4	PCC	MEL	Metal Cutting and Machine Tool	3	0	2	4	4	PEC		School Elective-II	3	0	0	3
5	ESC	MEL3021	CAD/CAM	3	0	2	4	5	HSMC	MEL 2133	Operations Research	3	0	0	3
6	PEC		School Elective -I	3	0	0	3	6	PCC	MEL 3020	Finite Element Analysis	3	0	0	3
7			Constitution of India	1	0	0	NC	7	PCC		Machine Design -II	3	0	0	3
8			Summer Training-I	0	0	2	1								
9															
			TOTAL	19	1	8	23				TOTAL	21	0	4	23
Total Credits							23	Total Credits							23

7 th Semester								8 th Semester							
Sl. No.	AICTE Code	Course Code	Course Title	L	T	S/P	C	Sl. No.	AICTE Code	Course Code	Course Title	L	T	S/P	C
Passing of Comprehensive Exam, conducted in 4 th Week of August, Last Week of October, is mandatory for Award of degree															
1	OEC		Open Elective-II	3	0	0	3	1	PW	MED 4912	Major Project	10	0	0	10
2	PEC	MEE 3022	Mechanical Vibration	3	0	2	4								
3			School Elective -III	3	0	0	3								
4			Refrigeration and Air conditioning	3	0	0	3								
5			Summer Training-II	0	0	2	1								
6			Entrepreneurship Development	3	0	0	3								
7			Minor Project	0	0	3	1.5								
			TOTAL	15	0	7	18.5				TOTAL				10
Total Credits							18.5	Total Credits							10

School Elective –I

Course Code	Course Title	L-T-P	Credits
MEE 3224	Power Plant Engineering	3-0-0	3
MEE 3134	Work Study and Ergonomics	3-0-0	3
MEE 3122	Computer Integrated Manufacturing Systems	3-0-0	3
MEE 3024	Concurrent Engineering	3-0-0	3
MEE 3032	Industrial Automation	3-0-0	3
MEE 3233	Gas Dynamics and Jet Propulsion	3-0-0	3
MEE 3033	Control Systems	3-0-0	3
MEE 3079	Tribology	3-0-0	3

School Electives-III

Course Code	Course Title	L-T-P	Credits
MEE 3162	Quality Management	3-0-0	3
MEE 3163	Robotics	3-0-0	3
MEE 3164	Non Destructive Testing	3-0-0	3
MEE 4234	Computational Fluid Flow and Heat Transfer	3-0-0	3
MEE 3239	Fuel and Combustion	3-0-0	3
MEE 3240	Hydrogen and Fuel Cell	3-0-0	3
MEE 3165	Project Management	3-0-0	3
MEE 4235	Energy Management	3-0-0	3
MEE 4025	Design for Manufacturing and Assembly	3-0-0	3
MEE 4027	Product Design & Developments	3-0-0	3
	Automobile Engineering	3-0-0	3

Open Elective

Course Code	Course Title	L-T-P	Credits
MEL 1112	Material Science and Engineering	3-0-0	3
MEE 4027	Product Design and Development	3-0-0	3
MEE 3225	Fuel Combustion and Pollution	3-0-0	3
MEE 3163	Robotics	3-0-0	3
MEE 3080	Design of Composite Materials	3-0-0	3
MEE 4143	Quality Management	3-0-0	3
MEE 4141	Maintenance Engineering	3-0-0	3
MEE 3238	Sustainable Energy Engineering	3-0-0	3

School Electives-II

Course Code	Course Title	L-T-P	Credits
MEE 3236	Alternate Fuels	3-0-0	3
MEE 3237	Solar Thermal Power Engineering	3-0-0	3
MEE 3160	Digital Manufacturing and Design	3-0-0	3
MEE 3161	Micro and Nano Machining	3-0-0	3
MEE 3080	Design of Composite Materials	3-0-0	3
MEE 3081	Modeling and Simulation of Manufacturing System	3-0-0	3
MEE 3238	Sustainable Energy Engineering	3-0-0	3
MEE 4141	Maintenance Engineering	3-0-0	3