



School of Mechanical Engineering
Program Structure of B. Tech. Four Year Full Time Degree
(Entry Batch 2020-24 Onwards)

1st Semester								2nd 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
Theory								Theory							
1.	BSC	MTL1025	Engineering Mathematics-I	3	0	0	3	1	BSC	MTL1026	Engineering Mathematics-II	3	0	0	3
2	ESC	ECL1010	Basic Electronics	3	0	0	3	2	ESC	MEL 1011	Engineering Graphics	1	0	3	2.5
3	BSC	PHL1012	Engineering Physics	3	0	0	3	3	ESC	CSL1028	Programming in PYTHON-I (PL-2) PCC	2	0	0	2
4	ESC	CSL1022	Introduction to 'C' Programming-/Python.	3	0	0	3	4	BSC	MEL1112	Materials Science and Engineering	3	0	0	3
5	HSMC	LNL1411	Professional Communication Skills	2	0	0	2	5	ESC	MEL1012	Engineering Mechanics	3	1	0	4
6	MC		Induction Program					6	MC	PCL 1067	Discourse on Human Virtues – AICTE MC-HS	3	0	0	3
7	MC	PCN1010	NSS (Non-Credit)-UGC	0	0	0	0								
8		MEL1001	Introduction to Mechanical Engineering	1	0	0	NC								
Lab								Lab							
								7	ESC	CSP1028	Programming in PYTHON-I (PL-2) PCC	0	0	4	2
9	ESC	ECP1010	Basic Electronics	0	0	2	1	8	BSC	MEP1112	Materials Science and Engineering	0	0	2	1
10	BSC	PHP1012	Engineering Physics	0	0	2	1	9		LNP1142	Language lab	0	0	2	1
11	ESC	CSP1022	Introduction to 'C' Programming-/Python.	0	0	2	1								
12	HSMC	LNP1411	Professional Communication Skills	0	0	2	1								
13	ESC		Mechanical Workshop	0	0	3	1.5								
			TOTAL	15	0	11	19.5				TOTAL	15	1	11	21.5
Total Credits								Total Credits							
19.5								21.5							

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
Theory								Theory							
1	HSMC	PCL2042	Introduction to Logic-AICTE	3	0	0	3	1	PCC	MEL 2232	Fluid Machines	3	1	0	4
2	PCC	MEL2015	Kinematics of Machines	3	1	0	4	2	PCC	MEL 2212	Thermal Engineering	3	0	0	3
3	PCC	MEL2231	Fluid Mechanics	3	1	0	4	3	PCC	MEL 2113	Manufacturing Processes	3	0	0	3
4	PCC	MEL2014	Strength of Materials	3	1	0	4	4	PCC	MEL 2018	Dynamics of Machines	3	1	0	4
5	PCC	MEL2211	Thermodynamics	3	1	0	4	5	PCC	MEL 2016	Mechanics of Materials	3	1	0	4
6	PCC	MEL2013	Machine Drawing	1	0	3	2.5	6	PCC	MEL2017	Machine Design-I	3	1	0	4
7	MC	BTL2304	Environmental Studies-AICTE	3	0	0	NC	Lab							
Lab								7	PCC	MEP 2232	Fluid Machines	0	0	2	1
8	PCC	MEP2231	Fluid Mechanics	0	0	2	1	8	PCC	MEP 2212	Thermal Engineering	0	0	2	1
9	PCC	MEP2014	Strength of Materials	0	0	2	1	9	PCC	MEP 2113	Manufacturing Processes	0	0	2	1
10		MEC2001	Summer internship-I	0	0	2	1	10	PCC	MEP 2018	Dynamics of Machines	0	0	2	1
											Total	18	4	8	26
			TOTAL	19	4	9	24.5	Total Credits							
Total Credits								24.5							
Total Credits								26							

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		
Theory								Theory									
1	PCC	MEL3221	Heat and Mass Transfer	3	1	0	4	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	0	3		
3	PCC	MEL 3018	Machine Design - II	3	1	0	4	3	PCC	MEL3022	Mechanical Vibration	3	1	0	4		
4	PCC	MEL 3136	Metal Cutting and Machine Tool	3	0	0	3	4	PEC		School Elective-II	3	0	0	3		
5	ESC	MEL3021	CAD/CAM	3	0	0	3	5	PCC	MEL 3222	IC Engine	3	0	0	3		
6	PEC		School Elective -I	3	0	0	3	6	PCC	MEL3031	Automobile Engineering	2	0	0	2		
7		PCN 3079	Constitution of India	1	0	0	NC										
Lab								Lab									
8	PCC	MEP3221	Heat and Mass Transfer	0	0	2	1		ESC	MEP3121	Metrology and Measurements	0	0	2	1		
9	PCC	MEP 3136	Metal Cutting and Machine Tool	0	0	2	1		PCC	MEP3022	Mechanical Vibration	0	0	2	1		
10	ESC	MEP3021	CAD/CAM	0	0	2	1		PCC	MEP 3222	IC Engine	0	0	2	1		
		MEC3002	Summer Internship-II	0	0	2	1		PCC	MEP3031	Automobile Engineering	0	0	2	1		
			TOTAL	19	2	8	24				TOTAL	17	1	8	22		
Total Credits								24	Total Credits								22

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															
Theory															
1	OEC		Open Elective-II	3	0	0	3	1			Open Elective-III				NC
2			School Elective -III	3	0	0	3	2	PW	MED 4912	Major Project	0	0	20	10
3		MEL4223	Refrigeration and Air conditioning	3	0	0	3								
Lab															
4		MEP4223	Refrigeration and Air conditioning	0	0	2	1								
		MEC4003	Summer Internship III	0	0	2	1								
		MED4921	Minor Project	0	0	3	1.5								
			TOTAL	9	0	7	12.5								
Total Credits							12.5	Total Credits							10

LIST OF SCHOOL ELECTIVES

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
MEE 2134	Mechanical System Design	3-0-0	3
MEE3065	Mechatronics	3-0-0	3

School Electives-III

Course Code	Course Title	L-T-P	Credits
MEE 3162	Quality Management	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
MEE3144	Industry 4.0	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
MEE3144	Industry 4.0	3-0-0	3