



# School of Mechanical Engineering

## Program Structure of B. Tech. Four Year Full Time Degree (Entry Batch 2018 Onwards)

1 <sup>st</sup> Semester 2018-22							2 <sup>nd</sup> Semester						
Sl. No.	Course Code	Course Title	L	T	S/P	C	Sl. No.	Course Code	Course Title	L	T	S/P	C
1.	MTL1012	Engineering Mathematics-I	3	0	0	3	1	MTL1026	Engineering Mathematics-II	3	0	0	3
2	ECL1010	Basic Electronics	3	0	2	4	2	ECP 1200	Engineering Graphics	0	0	4	2
3		Engineering Physics	3	0	2	4	3		PYTHON-I	1	0	4	3
4	ECL1020	Introduction to 'C' Programming-	1	0	4	3	4	MEL1112	Materials Science and Engineering	3	0	2	4
5	LNL1411	Communication Skills	2	0	2	3	5	MEL1012	Engineering Mechanics	3	1	0	4
6	MEL1001	Introduction to Mechanical Engineering	1	0	0	1	6	PCL 1067	Discourse of Human Values –AICTE MC-HS	2	0	0	2
7		Engineering Workshop	0	0	2	1	7	LMP1142	Language Lab-I-HS	0	0	2	1
8		Induction Program											
		NSS (Non-Credit)-UGC				40 Hrs							
Total Credits						19	Total Credits						19
3 <sup>rd</sup> Semester							4 <sup>th</sup> Semester						
Sl. No.	Course Code	Course Title	L	T	S/P	C	Sl. No.	Course Code	Course Title	L	T	S/P	C
1		Environmental Studies-AICTE	3	0	0	N C	1	MEL 2232	Fluid Machines	3	0	2	4
2	PCL2042	Introduction to Logic-AICTE	3	0	0	3	2	MEL 2212	Thermal Engineering	3	0	2	4
3	MEL2015	Kinematics of Machines	3	0	0	4	3	MEL 2113	Manufacturing Processes	3	0	2	4
4	MEL2231	Fluid Mechanics	3	0	2	4	4	MEL 2018	Dynamics of Machines	3	0	2	4
5	MEL2014	Strength of Materials	3	1	2	5	5	MEL 2017	Machine Design	3	1	0	4
6	MTL6066	Numerical Methods	3	1	0	4	6	MEL 2016	Mechanics of Materials	3	0	0	3
7	MEL1211	Thermodynamics	3	0	0	3	7		Constitutional of India- AICTE	2	0	0	2
Total Credits						23	Total Credits						25
5 <sup>th</sup> Semester							6 <sup>th</sup> Semester						
Sl. No.	Course Code	Course Title	L	T	S/P	C							
1	MEL3221	Heat and Mass Transfer	3	0	2	4	1		Open Elective-I	3	0	0	3
2	MEL3131	Industrial Engineering	3	0	0	3	2		School Elective –II	3	0	0	3
3	MEL3019	Design of Machine Elements	3	0	0	3	3	MEL3121	Metrology and Measurements	3	0	2	4
4	MEL3114	Machining Processes	3	0	0	3	4	MEL3222	Internal Combustion Engines	3	0	2	4
5	MEL3021	CAD/CAM	3	0	2	4	5	MEL3022	Mechanical Vibrations	3	1	2	4
6		School Elective –I	3	0	0	3	6	MEL2133	Operations Research	3	0	0	3
7		Finite Element Analysis	3	0	0	3							
		Minor Project-I –				2	7	MED 4921	Minor Project- Projects				2
									Advance CAD/CAM Lab	0	0	3	2
Total Credits						25	Total Credits						25

7 <sup>th</sup> Semester							8 <sup>th</sup> Semester						
Sl. No.	Course Code	Course Title	L	T	S / P	C	Sl. No.	Course Code	Course Title	L	T	S / P	C
1	ECC 4980	Summer Internship Evaluation-				2	1	ECD 4992 / ECC 4982	(Major Project + <b>Open Elective-III</b> ) (9+3) / Internship (12)				12
2		Open Elective-II	3	0	0	3							
3	ECL4170	<b>OFC (Compulsory)</b>	3	0	2	4							
4	M EL 4223	Refrigeration and Air-conditioning	3	0	2	4							
5	MEL 4031	Automobile Engineering	3	0	2	4							
6		Disaster management – AICTE-MC	2	0	0	2							
7	MEC 4913	Colloquium	0	0	2	1							
8	MED 4921	Project- Phase-I	0	0	4	2							
Total Credits						22	Total Credits						12

## 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 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

### School Elective-II

Course Code	Course Title	L-T-P	Credits
MEE 4234	Computational Fluid Flow and Heat Transfer	3-0-0	3
MEE 4025	Design for Manufacturing and Assembly	3-0-0	3
MEE 4034	Environmental Science and Engineering	3-0-0	3
MEE 4141	Maintenance Engineering	3-0-0	3
MEE 4026	Mechanical System Design	3-0-0	3
	THE FUTURE OF THE AUTOMOBILE		
MEE 4027	Product Design & Developments	3-0-0	3
MEE 4035	Tool Design	3-0-0	3
MEE 4143	Total Quality Management	3-0-0	3
MEE 4235	Energy Management	3-0-0	3

### Open Elective

Course Code	Course Title	L-T-P	Credits
	Industrial Psychology	3-0-0	3
	Artificial Intelligence	3-0-0	3
MEE 3225	Fuel Combustion and Pollution	3-0-0	3
MEE 4142	Injection Moulding and Mould Design	3-0-0	3
	INTRODUCTION TO SENSORS	3-0-0	3