

B.Tech in Mechanical Engineering (2018-2019)

Sem	Course Code Course Name (L-T-P)C							General Proficiency Courses	Software Skill Enhancement/Soft Skill Development/Competitive Exam Preparation	Community Service	Lect. Courses	L	T	P	Weekly Contact	Credits	
I	MAL151 Engineering Maths-I (3-0-2) 4	PYL150 Engineering Physics (3-0-2) 4	CLL101 Eff. Comm.-I (1-0-2) 2	CSL106 FOCP-I (1-0-2) 2	MEL150 Basics of Mechanical Engineering (2-0-2) 3	ECL110 Basics of Electrical & Electronics Engg. (3-0-2) 4		MER118 General Proficiency (-- 1)			6	13	--	12	25	20	
II	MAL152 Engineering Maths-II (3-0-2) 4	CHL150 Engg. Chemistry (2-0-2) 3	CLL102 Eff. Comm.-II (1-0-2) 2	CSL108 FOCP-II (1-0-2) 2	MEP110 Engg Graphics & Drg (1-0-3) 3	CLL 120 Human Values and professional Ethics (2-0-0) 2	CSL110 Problem Solving and design thinking (2-0-2)3	MER119 General Proficiency (-- 1)			6	12	--	13	25	20	
	MED 210: Minor Project																02
III	MEL215 Production Engineering (3-0-2) 4	MEL203 Mechanics of Solids-I (3-0-2) 4	MEL290 Thermodynamics (3-1-0) 4	MEL205 Engg. Mechanics (3-1-0) 4	MEP207 M/c Drawing (0-0-4) 2	OE-1 3 Credits		MER218 General Proficiency (-- 1)	MEP200 Special Software Solidworks/ANSYS/MATLAB/other software packages (0-0-2) 1		5	15	2	10	27	23	
IV	MEL314 Energy Conversion (3-0-2) 4	MEL206 Theory of Machines (3-1-0) 4	MEL208 Fluid Mechanics (3-1-0) 4	MEL209 Materials Science and Engg. (2-0-2) 3	OE-2 3 Credits	CLP120 Creative Writing (0-0-2) 1		MER219 General Proficiency (-- 1)	MEP220 Special Software Solidworks/ANSYS/MATLAB/other software packages (0-0-2) 1		5	14	2	8	24	21	
	MET 310: Industrial Training I																02
V	MEL202 Heat and Mass Transfer (3-1-2) 5	MEL207 Machine Design I (3-1-0) 4	MEL303 Fluid Machines (2-1-2) 4	OE-3 (Foreign Language) (1-2-0) 3	SML300 Entrepreneurship (2-0-2) 3 Credits	MEC321 Seminar 1 Credit		MER318 General Proficiency (-- 1)	MEP300 Special Software Solidworks/ANSYS/MATLAB/other software packages (0-0-2) 1	MES300 CS-V (35 Hours)	5	11	5	8	24	22	
VI	MEL 326 Instrumentation & Control Engineering (3-0-2) 4	MEL 310 Industrial Engineering (3-1-0) 4	MEL 306 Machine Design II (2-2-0) 4	CHL100 Environmental Studies (3-0-0) 3	OE-4 3 Credits	MED320 Project Based Learning Tinkering lab. 1 Credit		MER319 General Proficiency (-- 1)	CLP300 Campus to Corporate (0-0-2) 1	MES300 CS-VI (35 Hours) 1 Credit	5	14	3	4	21	21+1	
	MET 410: Industrial Training-II																03
VII	MED423 Major Project I Credits-4	MEL401 Operations Research (2-1-0) 3	PE-1 3 Credits	PE-2 3 Credits	PE-3 3 Credits	PE-4 3 Credits		MER418 General Proficiency (-- 1)		MES400 CS-VII (70 Hours)	5	14	1		15	20	
VIII	MED424 Major Project II Credits-6	PE-5 3 Credits Could be offered through MOOCs	PE-6 3 Credits Could be offered through MOOCs			Optional pre-placement training (6 credits). Student opting for it is not required to register for Major Project II		MER419 General Proficiency (-- 1)	SEG400 Self Study Course GATE NC	MES400 CS-VIII (70 Hours) 2 Credit	2	6			6	13+2	
CORE COURSES = 107 (BS=21, ESTA=27, HMS=11, PC=48); ELECTIVE COURSES = 30 (HMS=3, OE=9, PE=18); SPT = 19 ; VA = 3 ; GP = 8 TOTAL CREDITS = 167																167 +3=169	

Set of Programme Electives for Specialization						
4 th year						
Thermal Engineering	MEL312 ICE & GT (2-0-2) 3	MEL402 RAC (2-1-2) 4	MEL404 Power Plant Engineering (2-1-0) 3	MEL 611-TH Renewable Energy Systems (2-1-0) 3	MEL410 Design of Thermal Systems (2-1-0) 3	MEL621-TH Analysis of IC Engine systems (2-1-0) 3
Mechanical Engineering Design	MEL315 Mechanics of Solids II (2-1-0) 3	MEL625-MD Vibration and Noise Engineering (2-0-2)3	MEL627-MD Mechatronics (2-0-2)3	MEL510 Introduction to FEM (2-1-0) 3	MEL420 Advanced Theory of Machines (2-0-2) 3	MEL560 Advanced Machine Design (2-1-0) 3
Industrial & Production Engineering	MEL318 Modern Manufacturing Processes (3-0-0) 3	MEL403 Computer Aided Manufacturing (2-0-2)3	MEL627-MD Mechatronics (2-0-2)3	MEL408 Quality Assurance and Reliability Engineering (2-1-0) 3	MEL412 Supply Chain Management (2-1-0) 3	MEL570 Production & Operations Management (2-1-0) 3
Automobile Engineering	MEL625-MD Vibration and Noise Engineering (2-0-2) 3	MEL319 Automobile System Engineering (2-1-0) 3	MEL418 Vehicle Development and Testing (2-1-0) 3	MEL627-MD Mechatronics (2-0-2)3	MEL409 Emerging Automotive Technologies (2-1-0) 3	MEL613-AE Automotive Safety (2-1-0) 3
Minimum and maximum number of registered students in each elective should be 20 and 60 respectively.						