Revised Curriculum of B.Sc. Engineering Honours Degree Programme
Mechanical Engineering Specialization
Department of Mechanical Engineering

Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits		Norm		
					GPA	NGPA	GPA	NGPA	Total
Semester 1									
MA1012	Mathematics	C	3.0	1/1	3.0				
CS1032	Programming Fundamentals	C	2.0	3/1	3.0				
ME1032	Mechanics	C	2.0	3/4	2.0				
MT1022	Properties of Materials	C	2.0	3/4	2.0				
CE1022	Fluid Mechanics	C	2.0	3/4	2.0				
EE1012	Electrical Engineering	C	2.0	3/4	2.0				
EL1012	Language Skill Enhancement I	C	-	3/1	1.0		15.0	0.0	15.0
				Total for Semester 1	15.0	0.0	**15.0**	**0.0**	**15.0**
Term A									
EL1022	Language Skill Enhancement II	C	-	6/1	1.0				
MN1012	Engineering in Context	C	2.0	-		1.0			
ME1952	Engineering Design	C	2.0	3/1		1.5			
ME1962	Engineering Skill Development	C	1.0	6/1		1.5	1.0	4.0	5.0
DE1xx2	Non-Technical Elective I*	E			2.0		2.0	0.0	2.0
				Total for Term A	3.0	4.0	**3.0**	**4.0**	**7.0**
Semester 2									
MA1022	Methods of Mathematics	C	3.0	1/1	3.0				
CS2812	Visual Programming	C	1.0	3/1	2.0				
EN1802	Basic Electronics	C	2.0	3/4	2.0				
MT1812	Engineering Materials	C	1.5	3/2	2.0				
ME2122	Engineering Drawing & Computer Aided Modelling	C	2.0	3/1	3.0				
ME1042	Introduction to Mechanical Engineering Systems	C	1.0	3/1	2.0				
ME1052	Fundamentals of Engineering Thermodynamics	C	2.5	3/2	3.0				
ME1062	Public Speaking and Negotiation Skills	C	0.5	3/2	-	1.0	17.0	1.0	18.0
				Total for Semester 2	17.0	1.0	**17.0**	**1.0**	**18.0**

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Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits		Norm		
					GPA	NGPA	GPA	NGPA	Total
Semester 3									
MA2012	Differential Equations	C	2.0	-	2.0				
MA2022	Calculus	C	2.0	-	2.0				
EE2802	Applied Electricity	C	1.5	3/2	2.0				
EN2852	Applied Electronics	C	1.5	3/2	2.0				
ME2022	Manufacturing Engineering I	C	3.5	3/2	4.0				
ME2112	Fluid Dynamics	C	1.5	3/2	2.0				
ME2092	Mechanics of Machines I	C	3.5	3/2	4.0				
ME2012	Mechanics of Materials I	C	1.5	3/2	2.0				
ME2902	Industrial Visits	C	-	3/1		1.0	20.0	1.0	21.0
ME2602	Motor Vehicle Technology	O	1.5	3/2	2.0		0.0	0.0	0.0
				Total for Semester 3	22.0	1.0	**20.0**	**1.0**	**21.0**
Semester 4									
MA2032	Linear Algebra	C	2.0	-	2.0				
MA2042	Discrete Mathematics	C	2.0	-	2.0				
ME2032	Thermodynamics of Heat Engines & Work Transfer Devices	C	3.5	3/2	4.0				
ME3072	Manufacturing Engineering II	C	3.5	3/2	4.0				
ME3032	Mechanics of Machines II	C	1.5	3/2	2.0				
ME3062	Mechanics of Materials II	C	3.5	3/2	4.0				
ME2142	Machine Elements and Innovative Design	C	2.0	3/1	3.0				
ME2952	Social/Community Project	C	-	3/1		1.0	21.0	1.0	22.0
CS2832	Modular Software Development	O	1.0	6/1	3.0				
CH2802	Process Engineering	O	1.5	3/2	2.0		0.0	0.0	0.0
				Total for Semester 4	26.0	1.0	**21.0**	**1.0**	**22.0**

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Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits		Norm		
					GPA	NGPA	GPA	NGPA	Total
Semester 5									
MA3012	Applied Statistics	C	2.0	-	2.0				
MA3022	Numerical Methods	C	2.0	-	2.0				
ME3012	Control Systems & Instrumentation	C	3.5	3/2	4.0				
ME3022	Fluid Power Systems & Machinery	C	3.5	3/2	4.0				
ME3052	Machine Design & Project	C	3.0	3/1	4.0				
ME4042	Production & Operations Management	C	2.5	2/2	3.0				
ME3082	Technical Report Writing	C	0.5	3/2		1.0	19.0	1.0	20.0
MN3052	Industrial Management and Marketing	O	2.5	3/2	3.0				
ME3612	Intellectual Property	O	2.0	-	2.0		0.0	0.0	0.0
				Total for Semester 5	24.0	2.0	**19.0**	**1.0**	**20.0**
Term B & Semester 6									
ME3992	Industrial Training	C	-	-		6.0	0.0	6.0	6.0
				Total for Term B & Semester 6	0.0	6.0	**0.0**	**6.0**	**6.0**

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Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits		Norm		
					GPA	NGPA	GPA	NGPA	Total
Semester 7									
MN4122	Human Resource Management and Industrial Relations	C	2	-	2.0				
MN3042	Business Economics and Financial Accounting	C	2.5	3/2	3.0				
ME4202	Design/Research Project**	C	-	-	3.0				
ME4902	Guest Lectures and Presentations	C	1.0	-		1.0	8.0	1.0	9.0
ME4512	Industrial Products, Machinery & Equipment Design	E	2	3/1	3.0				
ME4332	Computer Aided Design & Manufacture	E	3.0	3/1	4.0				
ME4452	Industrial Project Management	E	3.5	3/2	4.0				
ME4242	Energy Technology & Environment	E	2.5	3/2	3.0				
ME4382	Refrigeration & Airconditioning	E	3.5	3/2	4.0				
ME4462	Automation Systems	E	2.5	3/2	3.0				
ME4342	Mechatronic Systems Engineering	E	3.0	3/1	4.0		7.0	0.0	7.0
MA4012	Linear Models & Multivariate Statistics	E	3.0	-	3.0				
MA4022	Operational Research	E	3.0	-	3.0				
MA4032	Time Series & Stochastic Process	E	3.0	-	3.0				
MN4042	Technology Management	E	1.5	3/2	2.0				
MN4062	Organization Behaviour & Management	E	1.5	3/2	3.0				
ME4642	Advanced Dynamics & Vibrations	E	2.5	3/2	3.0				
ME3622	Fundamental Biomechanics	E	1.5	3/2	2.0				
ME4372	Aerodynamics	E	3.5	3/2	4.0		3.0	0.0	3.0
				Total for Semester 7	56.0	1.0	**18.0**	**1.0**	**19.0**

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Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits		Norm		
					GPA	NGPA	GPA	NGPA	Total
Term C									
ME4202	Design/Research Project**	C	-	-	2.0		2.0	0.0	2.0
DE3xx2	Non-Technical Elective II*	E			2.0		2.0	0.0	2.0
				Total for Term C	4.0	0.0	**4.0**	**0.0**	**4.0**
Semester 8									
ME4072	Industrial Engineering	C	3.5	3/2	4.0				
ME4202	Design/Research Project**	C	-	-	5.0		9.0	0.0	9.0
ME4392	Advanced Aspects of Manufacturing	E	3.0	-	3.0				
ME4472	Computer Aided Engineering	E	2.5	3/2	3.0				
ME4482	Logistics and Supply Chain Management	E	2.5	3/2	3.0				
ME4422	Energy Conservation	E	2.5	3/2	3.0				
ME4442	Heat and Mass Transfer	E	2.5	3/2	3.0				
ME4492	Advanced Automation System	E	2.5	3/2	3.0				
ME4502	Robotics Technology	E	2.5	3/2	3.0		6.0	0.0	6.0
MA4042	Neural Network and Fuzzy Logic	E	3.0	-	3.0				
MN4072	Small Business Management Entrepreneurship	E	1.5	3/2	2.0				
MN4022	Engineering Economics	E	1.5	3/2	2.0				
ME4662	Die and Mould Design	E	2.5	3/2	3.0				
ME4432	Computational Fluid Dynamics	E	2.5	3/2	3.0				
ME4672	Control Systems Design	E	2.5	3/2	3.0				
ME4632	Automotive Engineering	E	3.5	3/2	4.0				
ME4652	Marine Engineering & Naval Architecture	E	3.5	3/2	4.0		3.0	0.0	3.0
				Total for Semester 8	54.0	0.0	**18.0**	**0.0**	**18.0**
Total for the Programme					219.0	15.0	**135.0**	**15.0**	**150.0**

* - Weekly load of lectures and lab/Assignment hrs vary among different Non-technical modules.
** - A total of 10 credits for Design/Research Project over Semester 7, Term C and Semester 8.

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Modules Offered to Other Fields of Specialization

Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/weeks	Credits	
					GPA	NGPA
Semester 2						
ME1812	Basic Thermal Sciences	-	2.0	-	2.0	
ME2842	Basic Thermal Sciences and Applications	-	2.5	3/2	3.0	
ME1802	Introduction to Manufacturing Engineering	-	2.0	3/2	2.5	
Semester 3						
ME1822	Basic Engineering Thermodynamics	-	1.5	3/2	2.0	
Semester 4						
ME2832	Mechanics of Machines	-	1.5	3/2	2.0	
Semester 5						
ME3812	Machine Design	-	1.0	3/1	2.0	