

Bachelor of Technology in Mechanical Engineering (Electric Vehicles)

School of Mechanical Engineering

Programme Credit Structure		Credits				
Foundation Core Courses			54	BENG102P	Technical Report Writing	0 0 2 1
Basic Sciences and Mathematics		24	BSTS101P	Quantitative Skills Practice I	0 0 3 1.5	
Engineering Sciences		15	BSTS102P	Quantitative Skills Practice II	0 0 3 1.5	
Humanities, Social Sciences and Management (HSM)		15	BSTS201P	Qualitative Skills Practice I	0 0 3 1.5	
Discipline-linked Engineering Science Courses			15	BSTS202P	Qualitative Skills Practice II	0 0 3 1.5
Discipline Core Courses			49	BFLE200L	Foreign Language	2 0 0 2
Specialisation Elective Courses			21	BHSM200L	HSM Elective	3 0 0 3
Open Elective Courses			03	Discipline-linked Engineering Science Courses 15		
Project and Internship			09	BMEE209L	Materials Science and Engineering	3 0 0 3
Total Graded Credit Requirement			151	BMEE209P	Materials Science and Engineering Lab	0 0 2 1
Non-Graded Credit Requirement			11	BMEE215L	Engineering Optimization	3 1 0 4
Basic Sciences and Mathematics			24	BMEE330L	Control Systems	3 0 0 3
			L T P C	BMEE330P	Microcontrollers and Interfacing Lab	0 0 2 1
BPHY101L	Engineering Physics		3 0 0 3	BMEE407L	Artificial Intelligence	2 1 0 3
BPHY101P	Engineering Physics Lab		0 0 2 1	Discipline Core Courses 49		
BCHY101L	Engineering Chemistry		3 0 0 3	BMEE202L	Mechanics of Solids	3 0 0 3
BCHY101P	Engineering Chemistry Lab		0 0 2 1	BMEE202P	Mechanics of Solids Lab	0 0 2 1
BMAT101L	Calculus		3 0 0 3	BMEE203L	Engineering Thermodynamics	2 1 0 3
BMAT101P	Calculus Lab		0 0 2 1	BMEE204L	Fluid Mechanics and Machines	3 0 0 3
BMAT102L	Differential Equations and Transforms		3 1 0 4	BMEE204P	Fluid Mechanics and Machines Lab	0 0 2 1
BMAT201L	Complex Variables and Linear Algebra		3 1 0 4	BMEE206P	Machine Drawing Lab	0 0 4 2
BMAT202L	Probability and Statistics		3 0 0 3	BMEE207L	Kinematics and Dynamics of Machines	3 0 0 3
BMAT202P	Probability and Statistics Lab		0 0 2 1	BMEE207P	Kinematics and Dynamics of Machines Lab	0 0 2 1
Engineering Sciences			15	BMEE210L	Mechatronics and Measurement Systems	3 0 0 3
BMEE102P	Engineering Design Visualisation Lab		0 0 4 2	BMEE210P	Mechatronics and Measurement Systems Lab	0 0 2 1
BEEE102L	Basic Electrical and Electronics Engineering		3 0 0 3	BMEE301L	Design of Machine Elements	3 1 0 4
BEEE102P	Basic Electrical and Electronics Engineering Lab		0 0 2 1	BMEE302L	Metal Casting and Welding	3 0 0 3
BMEE201L	Engineering Mechanics		2 1 0 3	BMEE302P	Metal Casting and Welding Lab	0 0 2 1
BCSE101E	Computer Programming: Python		1 0 4 3	BMEE303L	Thermal Engineering Systems	3 0 0 3
BCSE103E	Computer Programming:Java		1 0 4 3	BMEE303P	Thermal Engineering Systems Lab	0 0 2 1
Humanities, Social Sciences and Management			15	BMEE304L	Metal Forming and Machining	3 0 0 3
BENG101N	Effective English Communication (NGC)		0 0 4 2	BMEE304P	Metal Forming and Machining Lab	0 0 2 1
BENG101L	Technical English Communication		2 0 0 2	BMEE306L	Computer Aided Design and Finite Element Analysis	3 0 0 3
BENG101P	Technical English Communication Lab		0 0 2 1	BMEE306P	Computer Aided Design and Finite Element Analysis Lab	0 0 2 1

BMEE401L	Computer Integrated Manufacturing	3	0	0	3
BMEE401P	Computer Integrated Manufacturing Lab	0	0	2	1
BMEE402L	Heat and Mass Transfer	3	0	0	3
BMEE402P	Heat and Mass Transfer Lab	0	0	2	1

Specialisation Elective Courses 21

BMEE213E	Automotive Vehicles	2	0	2	3
BMEE214E	Automotive Electricals and Electronics	2	0	2	3
BMEE325L	Internal Combustion Engines	3	0	0	3
BMEE327E	Vehicle Dynamics	2	0	2	3
BMEE328E	Hybrid and Electric Vehicles Technology	2	0	2	3
BMEE329E	Noise, Vibration, and Harshness	2	0	2	3
BMEE404L	Design of Transmission Systems	2	1	0	3
BMEE409E	Computational Fluid Dynamics	2	0	2	3
BMEE413L	Design of Chassis Components	2	1	0	3
BMEE414L	Vehicle Body and Aerodynamics Engineering	3	0	0	3
BMEE415L	Electrical Machines, Drives and Power Systems	3	0	0	3
BMEE416L	Autonomous Vehicle Systems	3	0	0	3
BMEE417L	Energy Storage and Management for Electric Vehicles	3	0	0	3
BMEE418L	Materials for Electric and Hybrid Electric Vehicles	3	0	0	3
BMEE419L	Electric Vehicle Testing and Certification	3	0	0	3

Open Elective Courses 03

Engineering Disciplines | Projects | Sciences | Humanities | Social Sciences | Liberal Arts | Economics | Finance | Entrepreneurship | Management | Skills | Reading

Project and Internship 9

BMEE399J	Summer Industrial Internship	1
BMEE497J	Project-I	3
BMEE498J	Project-II / Internship	5
BMEE499J	One Semester Internship	14

Non-Graded Credit Requirement 11

BMEE101N	Introduction to Engineering	1
BSSC101N	Essence of Traditional Knowledge	2
BSSC102N	Indian Constitution	2
BEXC100N	Extracurricular Activities	2
BCHY102N	Environmental Sciences	2
BHUM101N	Ethics and Values	2