

**Bachelor of Technology in Mechanical Engineering**  
**Specialisation in Manufacturing Engineering**  
**School of Mechanical Engineering**

<b>Programme Credit Structure</b>		<b>Credits</b>						
<b>Foundation Core Courses</b>		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
<b>Discipline-linked Engineering Science Courses</b>		15	BSTS202P	Qualitative Skills Practice II	0	0	3	1.5
<b>Discipline Core Courses</b>		49	BFLE200L	Foreign Language	2	0	0	2
<b>Specialisation Elective Courses</b>		21	BHSM200L	HSM Elective	3	0	0	3
<b>Open Elective Courses</b>		03	<b>Discipline-linked Engineering Science Courses</b>		<b>15</b>			
<b>Project and Internship</b>		09	BMEE209L	Materials Science and Engineering	3	0	0	3
<b>Total Graded Credit Requirement</b>		151	BMEE209P	Materials Science and Engineering Lab	0	0	2	1
<b>Non-Graded Credit Requirement</b>		11	BMEE215L	Engineering Optimization	3	1	0	4
<b>Basic Sciences and Mathematics</b>		<b>24</b>	BMEE330L	Control Systems	3	0	0	3
	<b>L T P C</b>		BMEE308P	Microcontrollers and Interfacing Lab	0	0	2	1
BPHY101L	Engineering Physics	3	0	0	3			
BPHY101P	Engineering Physics Lab	0	0	2	1			
BCHY101L	Engineering Chemistry	3	0	0	3			
BCHY101P	Engineering Chemistry Lab	0	0	2	1			
BMAT101L	Calculus	3	0	0	3			
BMAT101P	Calculus Lab	0	0	2	1			
BMAT102L	Differential Equations and Transforms	3	1	0	4			
BMAT201L	Complex Variables and Linear Algebra	3	1	0	4			
BMAT202L	Probability and Statistics	3	0	0	3			
BMAT202P	Probability and Statistics Lab	0	0	2	1			
<b>Engineering Sciences</b>		<b>15</b>	<b>Discipline Core Courses</b>		<b>49</b>			
BMEE102P	Engineering Design Visualisation Lab	0	0	4	2			
BEEE102L	Basic Electrical and Electronics Engineering	3	0	0	3			
BEEE102P	Basic Electrical and Electronics Engineering Lab	0	0	2	1			
BMEE201L	Engineering Mechanics	2	1	0	3			
BCSE101E	Computer Programming: Python	1	0	4	3			
BCSE103E	Computer Programming:Java	1	0	4	3			
<b>Humanities, Social Sciences and Management</b>		<b>15</b>	BMEE202L	Mechanics of Solids	3	0	0	3
BENG101N	Effective English Communication (NGC)	0	0	4	2			
BENG101L	Technical English Communication	2	0	0	2			
BENG101P	Technical English Communication Lab	0	0	2	1			
			BMEE202P	Mechanics of Solids Lab	0	0	2	1
			BMEE203L	Engineering Thermodynamics	2	1	0	3
			BMEE204L	Fluid Mechanics and Machines	3	0	0	3
			BMEE204P	Fluid Mechanics and Machines Lab	0	0	2	1
			BMEE206P	Machine Drawing Lab	0	0	4	2
			BMEE207L	Kinematics and Dynamics of Machines	3	0	0	3
			BMEE207P	Kinematics and Dynamics of Machines Lab	0	0	2	1
			BMEE210L	Mechatronics and Measurement Systems	3	0	0	3
			BMEE210P	Mechatronics and Measurement Systems Lab	0	0	2	1
			BMEE301L	Design of Machine Elements	3	1	0	4
			BMEE302L	Metal Casting and Welding	3	0	0	3
			BMEE302P	Metal Casting and Welding Lab	0	0	2	1
			BMEE303L	Thermal Engineering Systems	3	0	0	3
			BMEE303P	Thermal Engineering Systems Lab	0	0	2	1
			BMEE304L	Metal Forming and Machining	3	0	0	3
			BMEE304P	Metal Forming and Machining Lab	0	0	2	1
			BMEE306L	Computer Aided Design and Finite Element Analysis	3	0	0	3
			BMEE306P	Computer Aided Design and Finite Element Analysis Lab	0	0	2	1

BMEE401L	Computer Integrated Manufacturing	3	0	0	3	<b>Open Elective Courses</b>	<b>03</b>	
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			
<b>Specialisation Elective Courses</b>						<b>21</b>	<b>Project and Internship</b>	<b>9</b>
BMEE212L	Quality Control and Improvement	3	0	0	3	BMEE399J	Summer Industrial Internship	1
BMEE305L	Manufacturing Planning and Control	3	0	0	3	BMEE497J	Project-I	3
BMEE307L	Product Design and Development	3	0	0	3	BMEE498J	Project-II / Internship	5
BMEE309L	Lean Manufacturing	3	0	0	3	BMEE499J	One Semester Internship	14
BMEE310L	Supply Chain Management	3	0	0	3	<b>Non-Graded Credit Requirement</b>		<b>11</b>
BMEE316E	Industrial Robotics	3	0	2	4	BMEE101N	Introduction to Engineering	1
BMEE319E	Advanced Material Characterization Methods	3	0	2	4	BSSC101N	Essence of Traditional Knowledge	2
BMEE403L	Design of Jigs, Fixtures and Press Tools	3	0	0	3	BSSC102N	Indian Constitution	2
BMEE406E	Advanced Manufacturing Process	3	0	2	4	BEXC100N	Extracurricular Activities	2
BMEE410L	Industrial Revolution 4.0	3	0	0	3	BCHY102N	Environmental Sciences	2
BMEE412E	Manufacturing Systems Design	3	0	2	4	BHUM101N	Ethics and Values	2