## Bachelor of Technology in Mechanical Engineering (Smart Manufacturing)

School of Mechanical Engineering

Programme Credit Structure	Credits	Professional Core Courses 40
University Core Courses	60	BAMEE101 Manufacturing Processes 3 0 2 4
Professional Core Courses	60	BAMEE201 Mechanics of Materials 2 1 2 4
Professional Core	40	BAMEE202 Metallurgy and Mechanical Be- 3 0 2 4
Concentration	20	haviour of Materials
Open Elective Courses	40	BAMEE203 Thermodynamics and Thermal 3 0 2 4
Total Graded Credit Requirement	160	Systems
		BAMEE204 Fluid Mechanics and Heat Transfer 2 1 2 4
University Core Courses	60	BAMEE205 Engineering Innovation and Mod- 1 1 4 4
	LTPC	elling
BAPHY100 Physics*	4	BAMEE301 Computer Aided Design and Man- 3 0 2 4
BACHY100 Chemistry*	4	ufacturing
BAMAT101 Multivariable Calculus and Differ-	3 0 2 4	BAMEE302 Design of Mechanical Systems 2 1 2 4
ential Equations		BAMEE303 Control Systems 2 1 2 4
BAMAT200 Mathematics II*	4	BAMEE304 Computational Engineering 2 1 2 4
BAEEE101 Basic Engineering	3 0 2 4	
BACSE101 Problem Solving Using Python	0 0 4 2	Concentration
BACSE102 Problem Solving Using Java	0 0 4 2	
BAENG101 Technical English Communication	3 0 2 4	Smart Manufacturing 20
BASTS101 Qualitative and Quantitative Skills	3 0 0 1	
Practice I		BAMEE208 Smart Manufacturing 3 0 2 4
BASTS102 Qualitative and Quantitative Skills	3 0 0 1	BAMEE307 Manufacturing Systems Design 3 0 2 4
Practice II		BAMEE308 Industrial Internet of Things 2 1 2 4
BAFLC100 Foreign Language	1 0 2 2	BAMEE310 Introduction to Cyber Physical 3 0 2 4
BAHSM100 Humanities, Social Science and	3 0 0 3	Systems
Management		BAMEE313 Industrial Robotics 3 0 2 4
BAHUM101 India Studies	1 0 0 1	Open Elective Courses 40
BACHY101 Environmental Sciences	2 0 0 2	Engineering   Sciences   Humanities   Social Sciences   Liberal
BAHUM100 Ethics and Values*	2	Arts   Economics   Finance   Management
BAMGT101 Entrepreneurship	3 0 0 3	
BAMEE191 Basic Multidisciplinary Project	0 0 4 2	Ancillary (20 credits) - Students can opt for "Ancillary" in
BAMEE291 Innovative Design Project	0 0 4 2	other disciplines by earning 20 credits from the courses listed in
BAMEE391 Research / Design Project	0 0 6 3	the Ancillary options under Open Elective. Ancillary details will
BAMEE491 Technical Answers for Real World Problems	1 0 4 3	be mentioned only on the transcript.
BAMEE399 Internship I	0 0 2 1	Additional Concentration (20 credits) - Students can opt for
BAMEE499 Internship II / Capstone Project	0 0 126	"Additional Concentrations" in their own discipline by earning
BAENG100 Effective English Communication	0 0 4 2	20 credits from the courses listed in the Concentration options
(NCC)		under Open Elective. Concentration details will be mentioned
BAEXC100 Extracurricular Activities (NCCM)	0 0 4 2	only on the transcript.
*-Basket Details		Miner (additional 20 and the Control of the Control
BAPHY101 Applied Physics for Engineers	3 0 2 4	Minor (additional 20 credits) - Students can opt for a "Minor
BAPHY101 Applied Physics for Engineers BACHY109 Applied Chemistry for Enginners	3 0 2 4	Degree" in other disciplines 20 credits in addition to the mini-
BACHY109 Applied Chemistry for Enginners  BAMAT206 Linear Algebra and Integral Trans	3 0 2 4	mum credit requirement of the Undergraduate Degree from the

3 1 0 4

2 0 0 2

BAMAT206 Linear Algebra and Integral Trans-

forms

BAHUM102 Ethics in Engineering

**Second Major (additional 40 credits)** - Students can opt for a "Second Major" in other disciplines by earning 40 credits in addition to the minimum credit requirement of the Undergraduate Degree from the courses listed in the Second Major options.

courses listed in the Minor options