

MCE00XX	Open Elective 4	3	0	0	3						
MCE00XX	Open Elective 5	3	0	0	3						
MCE4170	Internship (Industry/ Research/ Industry Certification)	0	0	2	1						
	Seventh Semester Credits				13			Eighth Semester Credits			12

Program Elective 1 to Program Elective 7

List of Program Electives Courses

IV	V	VI	VII
PE1 <ul style="list-style-type: none"> • MCE2240: Digital System Design • MCE2241: IOT Systems 	PE2 <ul style="list-style-type: none"> • MCE3140: Finite Element Methods • MCE3141: Signals and Systems 	PE3 <ul style="list-style-type: none"> • MCE3242: Additive Manufacturing • MCE3243: Cyber-Physical System PE 4 <ul style="list-style-type: none"> • MCE3252: Collaborative Robots • MCE3253: Intelligent Systems PE5 <ul style="list-style-type: none"> • MCE3263: MEMS and NEMS • MCE3264: Artificial Intelligence 	PE6 <ul style="list-style-type: none"> • MCE4143: Machine Vision • MCE4144: Production and Operations Management PE 7 <ul style="list-style-type: none"> • MCE4153: Industrial IOT • MCE4154: E-Mobility

List of Open Electives Courses

Graded OE	Non-Graded OE
OE1 MCE0001: Fundamental of Robotics OE2 MCE0002: Automation in Industry OE3 MCE0003: Introduction to Building Automation OE4 MCE0004: Sensor Technologies OE5 MCE0005: Smart Agriculture	

Department of Mechatronics Engineering
School of Engineering
Faculty of Science, Technology and Architecture
Bachelor of Technology in Mechatronics Engineering, Batch 2025 Onwards
Minor Specialization/ Honors (160 + 18 Credits)

First Semester					Second Semester						
Code	Course Name	L	T	P	Cr	Code	Course Name	L	T	P	Cr
CHY1001	Engineering Chemistry & Lab	2	0	2	3	PHY1001	Engineering Physics & Lab	2	1	2	4
MAS1001	Calculus & Matrices	2	1	0	3	MAS1002	Computational Mathematics	2	1	0	3
ECE1002	Electronic Circuits	2	1	0	3	CHY1002	Environmental Studies	2	0	0	2
MEE1008	Basic Mechanical Engineering	3	0	0	3	EEE1001	Electrical Technology	2	0	0	2
CSCXXXX	Problem-Solving Using Computers	2	1	0	3	CIV1002	Engineering Material and Mechanics	2	1	0	3
DOA1001	Universal Human Values	1	0	0	1	MEE1038	Creativity & Innovation IDEA Lab	1	0	2	2
CSCXXXX	Problem-Solving Using Computers Lab	0	0	2	1	BIT1001	Biology for Engineers	2	0	0	2
LLC1011	Communication Skills	2	0	0	2	MEE1037	MATLAB for engineers lab	0	0	2	1
MEE1036	Engineering Graphics	0	0	2	1	DOA1002	Wellness and Community Services	1	0	0	1
	First Semester Credits				20		Second Semester Credits				20
Third Semester					Fourth Semester						
Code	Course Name	L	T	P	Cr	Code	Course Name	L	T	P	Cr
MBBXXX/ MEEXXXX	Principles of Management/ Engineering Economics	3	0	0	3	MBBXXX/ MEEXXXX	Principles of Management/ Engineering Economics	3	0	0	3
MCE2101	Linear Integrated Circuits	3	1	0	4	MASXXXX	Statistics & Probability	3	0	0	3
MCE2102	Embedded Controllers	3	1	0	4	MCE2203	Sensors and Actuators	3	1	0	4
MCE2103	Strength of Materials	3	0	0	3	MCE22XX	Program Elective 1	3	0	0	3
MCE2104	Manufacturing Technology	3	1	0	4	MCE00XX	Open Elective 1	3	0	0	3
MCE2105	Kinematics and Dynamics of Machines	3	1	0	4	XXXXXXX	Technical Report Writing	2	0	0	2
MCE2130	Embedded Controllers Lab	0	0	2	1	MCE2231	Integrated Electronics Lab	0	0	2	1
MCE2131	PLC Lab	0	0	4	2	MCE2232	Sensors and Actuators Lab	0	0	2	1
						MCE2271	Project-based Learning-1	0	0	3	3
	Third Semester Credits				25		Fourth Semester Credits				23
Fifth Semester					Sixth Semester						
Code	Course Name	L	T	P	Cr	Code	Course Name	L	T	P	Cr
MCE3101	Design of Machine Elements	3	0	0	3	MCE3201	Drives and Automation	3	1	0	4
MCE3102	Robotics	3	0	0	3	MCE32XX	Program Elective 3	3	0	0	3
MCE3105	Mobile Robots	3	1	0	4	MCE32XX	Program Elective 4	3	0	0	3
MCE3106	Modern Control Theory	3	0	0	3	MCE3204	Fluid Mechanics	3	1	0	4
MCE31XX	Program Elective 2	3	0	0	3	MCE32XX	Program Elective 5	3	0	0	3
MCE00XX	Open Elective 2	3	0	0	3	MCE00XX	Open Elective 3	3	0	0	3
MCE3130	Design and Modelling Lab	0	0	2	1	MCE3231	Drives and Automation Lab	0	0	2	1
MCE3133	Robotics Lab	0	0	2	1	MCE3233	Pneumatics and Hydraulics Lab	0	0	4	2
MCE3171	Project-based Learning-2	0	0	3	3	MCE32XX	*Minor Specialization - 2/ Honors	3	0	0	3
MCE31XX	*Minor Specialization - 1/ Honors	3	0	0	3						

