

ACADEMIC PLAN

Fall / 2025

PROGRAM : Undergraduate
DEGREE: Bachelor of Engineering
CURRICULUM: Mechatronics Engineering
COLLEGE: Engineering

Faculty Core Requirements [8-8 Courses / 20 Cr.]	CLASSIFICATION	COURSE	COURSE NAME	COURSE Cr.	Minimum Grade	Required
	FACULTY CORE REQUIREMENTS [8 Course(s)/20Cr.]	CSC 200	Introduction to Computer & Software Tools	3.000	D	N
		CSC 201	Computer Programming I - C++	3.000	D	N
		LAW 230	Law & Ethics for Engineers	3.000	D	N
		MGT 225	Engineering Economics & Financial Management	3.000	D	N
		PHY 200	Engineering Mechanics - Dynamics	3.000	D	N
		PHY 202	General Physics LAB	1.000	D	N
		PHY 204	Electric Circuits	3.000	D	N
		PHY 205	Electric Circuits LAB	1.000	D	N
General Education University Requirement [6-6 Courses / 18 Cr.]	CLASSIFICATION	COURSE	COURSE NAME	COURSE Cr.	Minimum Grade	Required
	Business & Management [1 Course(s)/3Cr.]	MGT 223	Project Management for Engineers	3.000	D	N
	Citizenship and Social Responsibility [1 Course(s)/3Cr.]	LAW 210	Fighting Corruption	3.000	D	N
	Computer Literacy [1 Course(s)/3Cr.]	MIS 210	Computer Skills for Business	3.000	D	N
	Job Readiness [1 Course(s)/3Cr.]	HRM 245	Work Ready Now	3.000	D	N
	Language & Communication [1 Course(s)/3Cr.]	EGN 216	Communication and Scientific Cultures	3.000	D	N
		ENG 200	Writing Skills	3.000	D	N
	Religious Diversity [1 Course(s)/3Cr.]	ESC 205	Judaïsme, Christianité et Islam	3.000	D	N
		ESC 225	Enseignement Social de l'Eglise	3.000	D	N
Major Core Requirements [26-26 Courses / 58 Cr.]	CLASSIFICATION	COURSE	COURSE NAME	COURSE Cr.	Minimum Grade	Required
	Major Core Requirements [26 Course(s)/58Cr.]	CSC 300	Computer Programming II - C++	3.000	C	Y
		CSC 301	Computer Programming - C++ Laboratory	1.000	C	Y
		CTE 320	Logic Design	3.000	C	Y

Major Core Requirements [26-26 Courses / 58 Cr.]	Major Core Requirements [26 Course(s)/58Cr.]	CTE 410	Signals and Systems Analysis and Processing	3.000	C	Y
		CTE 411	MATLAB application in signal processing	1.000	C	Y
		CTE 444	Engineering graphing and Software Applications	3.000	C	Y
		CTE 510	Microprocessors and Microcontrollers	3.000	C	Y
		CTE 511	Microprocessors and Microcontrollers Laboratory	1.000	C	Y
		CTE 525	Digital Signal Processing	3.000	C	Y
		MCE 200	Introduction to Mecatronics Engineering	2.000	C	Y
		MCE 399	Work Experience:Technical internship MCE	0.000	C	Y
		MCE 403	Electric Power System	3.000	C	Y
		MCE 405	Electric Power System Laboratory	1.000	C	Y
		MCE 408	Linear Control Systems for Chemical Engineering	3.000	C	Y
		MCE 409	Mechanics of solids	3.000	C	Y
		MCE 410	Fluid Mechanics	3.000	C	Y
		MCE 430	Mechatronics	3.000	C	Y
		MCE 431	Mechatronics Laboratory	1.000	C	Y
		MCE 499	Internship I for Mechatronics Engineering	0.000	C	Y
		MCE 500	Electrical Machines	3.000	C	Y
		MCE 510	Robotics	3.000	C	Y
		MCE 511	Robotics Laboratory	1.000	C	Y
		MCE 520	Sensors and Instrumentation	3.000	C	Y
		MCE 530	Control and Optimization in Mechatronics Systems	3.000	C	Y
		MCE 698	Final Year Project for Mechatronics Engineering	3.000	C	Y
		MCE 699	Internship II for Mechatronics Engineering	2.000	D	Y
Science and Math Requirements [17-17 Courses / 43 Cr.]	CLASSIFICATION	COURSE	COURSE NAME	COURSE Cr.	Minimum Grade	Required

Science and Math Requirements [17-17 Courses / 43 Cr.]	Science and Math Requirements [17 Course(s)/43Cr.]	CHM 200	General Chemistry I	3.000	D	N
		CHM 201	General Chemistry I LAB	1.000	D	N
		ELE 300	Electronics	3.000	C	N
		ELE 301	Electronics Laboratory	1.000	C	N
		ELE 402	Digital Electronics	3.000	C	N
		ELE 403	Digital Electronics Laboratory	1.000	C	N
		MAT 201	Calculus for Engineers I	3.000	D	N
		MAT 202	Algebra for Engineers I	3.000	D	N
		MAT 211	Calculus for Engineers II	3.000	D	N
		MAT 212	Algebra for Engineers II	3.000	D	N
		MAT 302	Probability and Statistics for engineers	3.000	D	N
		MAT 321	Calculus for Engineers III	3.000	D	N
		MAT 331	Numerical Analysis	3.000	D	N
		PHY 300	Statics	3.000	D	N
		PHY 302	Electrostatics & Electromagnetism	3.000	D	N
		PHY 305	Optics & Electromagnetism Laboratory	1.000	D	N
		PHY 340	Thermodynamics	3.000	D	N
Technical Electives [6-6 Courses / 16 Cr.]	CLASSIFICATION	COURSE	COURSE NAME	COURSE Cr.	Minimum Grade	Required
	Technical Electives [6 Course(s)/16Cr.]	CME 440	Energy and Heat Transfer	3.000	C	N
		CTE 400	Network Engineering	3.000	C	N
		CTE 550	Analog Communication	3.000	C	N
		CTE 558	Embedded Systems	3.000	C	N
		CTE 570	Artificial Intelligence I	3.000	C	Y
		CTE 572	Database Systems	3.000	C	N
		MCE 505	Operations Research	3.000	C	N
		MCE 560	Renewable Energy Sources	3.000	C	N
		MCE 563	Manufacturing Processes	3.000	C	N
		MCE 564	Virtual Instrumentation and Labview	3.000	C	N

Technical Electives [6-6 Courses / 16 Cr.]	Technical Electives [6 Course(s)/16Cr.]	MCE 565	Virtual Instrumentation and VHDL Lab	1.000	C	N
		MCE 566	Refrigeration and Air- Conditioning	3.000	C	N
		MCE 568	CNC Machining Technology	3.000	C	N
		MCE 569	Intelligent Control	3.000	C	N
		MCE 570	CNC Machining Technology LAB	1.000	C	N
		MCE 571	Power Electronics	3.000	C	N
		MCE 572	Introduction to Petroleum Geology	3.000	C	N
		MCE 573	Kinematics and dynamics of machines	3.000	C	N
		MCE 599	Industrial visit for Mechatronics engineering	1.000	C	N