



EGYPTIAN NATIONAL UNIVERSITIES

مشروع إنشاء الجامعات المصرية الأهلية

جامعة العلمين الدولية

ALALAMEIN INTERNATIONAL UNIVERSITY

Al Alamein
International University

Mechatronics Engineering Program

برنامج هندسة الميكاترونيات

Study Plan

الخطة الدراسية

Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
1	MEC011	Engineering Drawing (1)	2	0	3	0	5	3	165	6
	PHY111	Physics I	2	2	0	0	4	3	150	6
	MAT111	Mathematics I	3	0	1	0	4	3	150	6
	MAT122	Statics	3	1	1	0	5	3	165	6
	CHE142	Engineering Chemistry	2	3	0	0	5	3	165	6
	UC1	University Requirement (1)	2	0	0	0	2	2	90	4
							25	17	885	34
2	MEC012	Engineering Drawing (2)	2	3	0	0	5	3	165	6
	MEC041	Production Engineering	2	3	0	0	5	3	165	6
	PHY211	Physics II	2	2	0	0	4	3	150	6
	MAT112	Mathematics II	3	0	1	0	4	3	150	6
	MAT121	Dynamics	3	1	1	0	5	3	165	6
	UC2	University Requirement (2)	2	0	0	0	2	2	90	4
							25	17	885	34
3	MEC111	Mechanical Engineering Drawing	2	3	0	0	5	3	165	6
	MEC151	Thermal Energy	2	0	2	0	4	3	150	6
	ELE111	Electrical Circuits	2	1	2	0	5	3	165	6



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	MAT312	Differential Equations	2	0	2	0	4	3	150	6
	UC3	University Requirement (3)	2	0	0	0	2	2	90	4
	MEC121	Manufacturing Technology	2	3	0	0	5	3	165	6
							25	17	885	34
4	CSE014	Structured Programming	2	3	0	0	5	3	180	6
	ELE234	Logic Design	2	1	2	0	5	3	165	6
	MEC253	Thermodynamics	2	1	2	0	5	3	165	6
	MEC112	Strength of Material	2	0	2	0	4	3	150	6
	MEC251	Fluid Mechanics	2	1	2	0	5	3	165	6
	UC4	University Requirement (4)	2	0	0	0	2	2	90	4
							26	17	915	34
5	ELE112	Electronic Circuits	2	1	2	0	5	3	165	6
	MEC211	Mechanics of Machinery	2	1	2	0	5	3	165	6
	MEC252	Heat & Mass Transfer	2	1	2	0	5	3	165	6
	ELE271	Electrical Machines	2	1	2	0	5	3	165	6
	MAT131	Probability and Statics 1	2	1	2	0	5	3	195	6
	UC5	University Requirement (5)	2	0	0	0	2	2	90	4
							27	17	945	34
6	MEC013	Technical Report Writing	2	0	0	0	2	2	90	4
	MEC214	Mechanical Vibration	2	1	2	0	5	3	165	6
	ELE380	Motors and electronic System	2	2	0	0	4	3	150	6
	MEC271	Automatic Control	2	1	2	0	5	3	165	6
	ELE238	Data Communication and Computer Networks	3	2	0	0	5	3	165	6
	MEC131	Metallurgy & Material testing	2	1	2	0	5	3	165	6
							26	17	900	34



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7	MEC313	Mechanical Power Transmission	2	2	1	0	5	3	165	6
	MEC341	Measurment and Instrumentation	1	3	0	0	4	2	120	4
	MEC231	Engineering Economy	٢	٠	٢	٠	٤	٣	١٥٠	٦
	UC6	University Requirement (6)	2	0	0	0	2	2	90	4
	E1	Elective Course (1)	2	2	2	0	6	3	180	6
	UE1	Elective University (1)	2	0	0	0	2	2	90	4
							23	15	795	30
8	MEC273	Hydraulics and pneumatics Control	2	1	2	0	5	3	165	6
	MEC471	Microcontroller & Embedded Systems	2	1	2	0	5	3	165	6
	MEC475	Digital Control	٢	1	2	٠	5	٣	١٦٥	٦
	MEC391	Industrial Project	1	6	0	0	7	3	195	6
	MEC455	Industrial Automation	2	1	2	0	5	3	165	6
	UE2	Elective University (2)	2	0	0	0	2	2	90	4
							29	17	945	34
9	ELE384	Image Prossecing and Computer vision	2	3	0	0	5	3	165	6
	MEC472	Mechatronic System Design	٢	3	0	٠	5	٣	165	٦
	MEC491	Graduation project 1	1	6	0	0	7	3	195	6
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
	E3	Elective Course (3)	3	3	0	0	6	3	180	6
	UC7	University Requirement (7)	2	0	0	0	2	2	90	4
							31	17	975	34
10	MEC492	Graduation project 2	1	6	0	0	7	3	195	6
	E4	Elective Course (4)	3	3	0	0	6	3	180	6
	E5	Elective Course (5)	3	3	0	0	6	3	180	6
	E6	Elective Course (6)	3	3	0	0	6	3	180	6



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	UE3	Elective University (3)	2	0	0	0	2	2	90	4
							27	14	825	28
							264	165	8955	330

Elective (E1)

- MEC235 Nanotechnology basics & health risk
- MEC255 Energy Resources
- MEC329 Industrial Robotics
- MEC442 Microfabrication and Thin-Film Technology Laboratory

Elective (E2, E3, E4, E5, E6)

- MEC343 Micro and Nanosystem Computer-Aided Design
- MEC363 System Psychology & Biomechanics
- MEC372 Sensors and Measurement Systems
- MEC381 Gait Analysis & Locomotion
- MEC429 Industrial automated assembly mechanisms
- MEC441 Computer Integrated Manufacturing
- MEC473 Design of Autonomous Systems
- MEC474 Modeling & Simulation of Mechatronics systems
- MEC481 Rehabilitation Robotics
- MEC482 Refrigeration and Air Conditioning



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MEC499	Special Topic
AIE111	Artificial Intelligence
AIE121	Machine Learning
ELE213	Industrial Electronics
ELE321	Signals and systemf fundamentals
ELE432	Digital Signal Processing
CSE015	Object Oriented Programming
CSE111	Data Structures