



EGYPTIAN NATIONAL UNIVERSITIES

مشروع إنشاء الجامعات المصرية الأهلية

جامعة العلمين الدولية

AL ALAMEIN INTERNATIONAL UNIVERSITY



Artificial Intelligence Engineering Program

برنامج هندسة الذكاء الاصطناعي

Study Plan

الخطة الدراسية

Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
1	MAT111	Mathematics I	3	0	1	0	4	3	150	6
	MAT123	Mechanics	2	2	0	0	4	3	150	6
	MEC011	Engineering Drawing (1)	2	0	3	0	5	3	135	4
	PHY212	Introduction to Engineering Physics	2	2	0	0	4	3	150	6
	CSE014	Structured Programming	2	3	0	0	5	3	180	6
	UC1	University Requirement (1)	2	0	0	0	2	2	90	4
							24	17	855	32
2	MAT112	Mathematics II	3	0	1	0	4	3	150	6
	MAT131	Probability & Statistics I	2	1	2	0	5	3	195	6
	CSE015	Object Oriented Programming	2	3	0	0	5	3	180	6
	CSE315	Discrete Mathematics	2	0	2	0	4	3	150	6
	UC2	University Requirement (2)	2	0	0	0	2	2	90	4
	UC3	University Requirement (3)	2	0	0	0	2	2	90	4
							22	16	855	32
	MAT212	Linear Algebra	2	0	2	0	4	3	150	6



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3	CSE111	Data Structures	2	3	0	0	5	3	180	6
	CSE113	Electric & Electronic Circuits	1	3	2	0	6	3	180	6
	CSE131	Logic Design	2	2	2	0	6	3	195	6
	UC4	University Requirement (4)	2	0	0	0	2	2	90	4
	UC5	University Requirement (5)	2	0	0	0	2	2	90	4
							25	16	885	32
4	MAT231	Probability & Statistics II	2	2	1	0	5	3	195	6
	MAT312	Differential Equations	2	0	2	0	4	3	150	6
	CSE132	Computer Architecture & Organization	2	2	1	0	5	3	165	6
	AIE111	Artificial Intelligence	2	2	1	0	5	3	180	6
	E1	Elective Course (1)	2	2	1	0	5	3	180	6
							24	15	870	30
5	E2	Elective Course (2)	2	2	1	0	5	3	180	6
	CSE221	Database Systems	2	2	1	0	5	3	180	6
	CSE233	Operating Systems	2	2	1	0	5	3	165	6
	AIE121	Machine Learning	2	2	1	0	5	3	180	6
	AIE291	Field Training 1 in Artificial Intelligence Engineering	2	0	0	0	2	2	60	4
	UE1	Elective University (1)	2	0	0	0	2	2	90	4
							24	16	855	32
6	CSE112	Design & Analysis of Algorithms	3	0	3	0	6	4	195	8
	CSE251	Software Engineering	2	2	1	0	5	3	180	6
	CSE261	Computer Networks	2	2	1	0	5	3	165	6



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Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
	CSE281	Image Processing	2	2	1	0	5	3	180	6
	CSE234	Embedded Systems	2	2	1	0	5	3	180	6
							26	16	900	32
7	ELE432	Digital Signal Processing	2	1	1	0	4	3	150	6
	CSE363	Cloud Computing	2	2	1	0	5	3	180	6
	CSE344	Introduction to Cyber Security	2	2	1	0	5	3	180	6
	AIE241	Natural Language Processing	2	2	1	0	5	3	180	6
	AIE323	Data Mining	2	2	1	0	5	3	180	6
	UE2	Elective University (2)	2	0	0	0	2	2	90	4
							26	17	960	34
8	CSE383	Computer Vision	2	2	1	0	5	3	180	6
	AIE212	Knowledge-Based Systems	2	2	1	0	5	3	180	6
	AIE213	Optimization Techniques	3	0	3	0	6	3	180	6
	AIE231	Neural Networks	2	2	1	0	5	3	180	6
	AIE392	Field Training 2 in Artificial Intelligence Engineering	2	0	0	0	2	2	60	4
	UC6	University Requirement (6)	2	0	0	0	2	2	90	4
							25	16	870	32
9	E3	Elective Course (3)	2	2	1	0	5	3	180	6
	E4	Elective Course (4)	2	2	1	0	5	3	180	6
	AIE351	Robotics Design	2	2	1	0	5	3	180	6
	AIE493	Graduation Project 1	2	3	0	0	5	3	180	6
	UC7	University Requirement (7)	2	0	0	0	2	2	90	4



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							22	14	810	28
10	E5	Elective Course (5)	2	2	1	0	5	3	180	6
	E6	Elective Course (6)	2	2	1	0	5	3	180	6
	AIE332	Deep Learning	2	2	1	0	5	3	180	6
	AIE494	Graduation Project 2	2	3	0	0	5	3	180	6
	UE3	Elective University (3)	2	0	0	0	2	2	90	4
							22	14	810	28
							240	157	8670	312



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Elective (E1)

CHE142	Engineering Chemistry
MAT121	Dynamics
MAT122	Statics
MAT315	Numerical Analysis
PHY211	Physics II

Elective (E2)

ELE115	Electrical Circuits & Measurements
ELE215	Electronics & Digital Circuits
ELE232	Fundamentals of Communication Systems
ELE233	Automatic Control Systems
ELE338	Wireless Communication Networks

Elective (E3)

CSE211	Web Programming
CSE271	Introduction to Parallel Computing
CSE272	Parallel & Distributed Systems
CSE322	Big Data Analytics 1
CSE363	Cloud Computing
CSE344	Introduction to Cyber Security
CSE382	Computer Graphics

Elective (E4)

CSE335	Real Time & Embedded Systems Design
CSE446	Information & Computer Networks Security
CSE464	Internet of things
CSE475	High Performance Computing
CSE485	Computer Games Theory
CSE487	Mixed & Augmented Reality
CSE488	Visualization & Animation
AIE314	AI-Based Programming

Elective (E5)

AIE315	Computational Logic
AIE316	Evolutionary Algorithms
AIE322	Advanced Machine Learning
AIE342	Advanced Methods for Data Analysis
AIE343	Machine Learning for Text Mining
AIE417	Selected Topics in Artificial Intelligence 1
AIE424	Intelligent Decision Support Systems
AIE425	Intelligent Recommender Systems
AIE444	Question Answering Systems

Elective (E6)

AIE418	Selected Topics in Artificial Intelligence 2
AIE426	Decision Making Under Uncertainty
AIE427	Statistical Pattern Recognition
AIE452	Cognitive Robotics
AIE453	Planning Techniques for Robotics
AIE454	Robot Kinematics & Dynamics
AIE455	Robot Mapping & Localization
AIE456	Human Robot Interaction
AIE457	Mobile Robot Development