



EGYPTIAN NATIONAL UNIVERSITIES

مشروع إنشاء الجامعات المصرية الاهلية

جامعة العلمين الدولية

ALALAMEIN INTERNATIONAL UNIVERSITY

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	MEC011	Engineering Drawing (1)	1	2	2	0	5	2	135	4
	CSE014	Structured Programming	3	3	0	0	6	3	180	6
	PHY212	Introduction to Engineering Physics	2	2	0	0	4	3	150	6
	MAT111	Mathematics I	3	1	0	0	4	3	150	6
	MAT123	Mechanics	2	2	0	0	4	3	150	6
	UC1	University Requirement (1)	2	0	0	0	2	2	90	4
	UE1	Elective University (1)	2	0	0	0	2	2	90	4
							27	18	945	36
2	CSE015	Object Oriented Programming	3	3	0	0	6	3	180	6
	CSE113	Electric & Electronic Circuits	1	3	2	0	6	3	180	6
	PHY211	Physics II	2	2	0	0	4	3	150	6
	MAT114	Analytical Geometry & Calculus I	3	2	0	0	5	4	195	8
	MAT131	Statistics	1	2	0	0	3	2	105	4
	UC2	University Requirement (2)	2	0	0	0	2	2	90	4
							26	17	900	34
	ELE115	Electrical Circuits & Measurements	2	2	1	0	5	3	165	5



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جامعة العلمين الدولية

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Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
3	CSE111	Data Structures	3	3	0	0	6	3	180	6
	CSE131	Logic Design	3	2	2	0	7	3	195	6
	AIE111	Artificial Intelligence	3	3	0	0	6	3	180	6
	MAT313	Differential Equations & Numerical Analysis	3	2	0	0	5	4	195	8
	UC3	University Requirement (3)	2	0	0	0	2	2	90	4
							<b>31</b>	<b>18</b>	<b>1005</b>	<b>35</b>
4	ELE432	Digital Signal Processing	2	1	1	0	4	3	150	6
	CSE112	Design & Analysis of Algorithms	3	3	0	0	6	3	180	6
	CSE132	Computer Architecture & Organization	3	2	0	0	5	3	165	6
	CSE315	Discrete Mathematics	2	0	2	0	4	3	150	6
	AIE121	Machine Learning	3	3	0	0	6	3	180	6
	UC4	University Requirement (4)	2	0	0	0	2	2	90	4
							<b>27</b>	<b>17</b>	<b>915</b>	<b>34</b>
5	CSE233	Operating Systems	3	2	0	0	5	3	165	6
	CSE261	Computer Networks	3	2	0	0	5	3	165	6
	CSE281	Image Processing	3	3	0	0	6	3	180	6
	AIE231	Neural Networks	3	3	0	0	6	3	180	6
	AIE241	Natural Language Processing	3	3	0	0	6	3	180	6
	UE2	Elective University (2)	2	0	0	0	2	2	90	4
							<b>30</b>	<b>17</b>	<b>960</b>	<b>34</b>
6	CSE221	Database Systems	3	3	0	0	6	3	180	6
	CSE272	Embedded Systems	3	3	0	0	6	3	180	6
	CSE383	Computer Vision	3	3	0	0	6	3	180	6
	AIE212	Knowledge-Based Systems	3	3	0	0	6	3	180	6
	AIE213	Optimization Techniques	3	0	3	0	6	3	180	6



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Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
	AIE291	Field Training 1 In AI Engineering	2	0	0	0	2	1	30	2
	UC5	University Requirement (5)	2	0	0	0	2	2	90	4
								<b>34</b>	<b>18</b>	<b>1020</b>
7	ELE215	Electronics & Digital Circuits	2	1	1	0	4	2	105	4
	AIE314	AI-Based Programming	3	3	0	0	6	3	180	6
	AIE322	Advanced Machine Learning	3	3	0	0	6	3	180	6
	E1	Elective Course (1)	2	2	0	0	4	3	150	6
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
	UC6	University Requirement (6)	2	0	0	0	2	2	90	4
							<b>28</b>	<b>16</b>	<b>885</b>	<b>32</b>
8	AIE323	Data Mining	3	3	0	0	6	3	180	6
	AIE332	Deep Learning	3	3	0	0	6	3	180	6
	AIE351	Robotics Design	3	3	0	0	6	3	180	6
	AIE392	Field Training 2 In AI Engineering	2	0	0	0	2	1	30	2
	E1	Elective Course (1)	2	2	0	0	4	3	150	6
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
							<b>30</b>	<b>16</b>	<b>900</b>	<b>32</b>
9	AIE425	Intelligent Recommender Systems	3	3	0	0	6	3	180	6
	AIE493	Graduation Project 1	2	0	0	0	2	3	120	6
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
	UC7	University Requirement (7)	2	0	0	0	2	2	90	4
							<b>22</b>	<b>14</b>	<b>750</b>	<b>28</b>
10	AIE424	Intelligent Decision Support Systems	3	3	0	0	6	3	180	6
	AIE494	Graduation Project 2	2	0	0	0	2	3	120	6



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International University

Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
	E2	Elective Course (2)	3	3	0	0	6	3	180	6
	UE3	Elective University (3)	2	0	0	0	2	2	90	4
							<b>22</b>	<b>14</b>	<b>750</b>	<b>28</b>
							<b>277</b>	<b>165</b>	<b>9030</b>	<b>329</b>

### Elective (E1)

- ELE211 Electromagnetic Fields
- ELE232 Fundamentals of Communication Systems
- ELE233 Control Engineering
- CHE142 Engineering Chemistry
- PHY328 Physics of Semiconductors & Dielectrics
- MAT121 Dynamics
- MAT122 Statics
- MAT231 Probability & Statistics

### Elective (E2)

- CSE273 Parallel & Distributed Systems
- CSE322 Big Data Analytics 1
- CSE363 Cloud Computing
- CSE376 Real Time & Embedded Systems Design
- CSE382 Computer Graphics
- CSE446 Information & Computer Networks Security
- CSE464 Internet of Things
- CSE478 High Performance Computing



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CSE485	Computer Games Theory
CSE487	Mixed & Augmented Reality
CSE488	Visualization & Animation
AIE315	Computational Logic
AIE316	Evolutionary Algorithms
AIE342	Advanced Methods for Data Analysis
AIE343	Machine Learning for Text Mining
AIE417	Selected Topics in Artificial Intelligence 1
AIE418	Selected Topics in Artificial Intelligence 2
AIE426	Decision Making Under Uncertainty
AIE427	Statistical Pattern Recognition
AIE444	Question Answering Systems
AIE452	Cognitive Robotics
AIE453	Planning Techniques for Robotics
AIE454	Robot Kinematics & Dynamics
AIE455	Robot Mapping & Localization
AIE456	Human Robot Interaction
AIE457	Mobile Robot Development