

Bachelor of Science in Artificial Intelligence and Smart Systems

Four-year study plan (120 credit hours):

Year	Semester	Courses	Credits	Prerequisites
First Year	First Semester	ENG 103: English I	3	-
		MTH 100: College Algebra	3	-
		CIT 100: Computer Concepts and Applications	3	-
		GED 101: Islamic Culture	3	-
		MAT 140: Probability and Statistics	3	-
		GED 112: Contemporary Emirati Studies	3	-
		Total	18	
	Second Semester	ENG 104: English II	3	ENG 103
		MAT 110: Calculus	3	MTH 100
		MAT 130: Linear Algebra	3	MTH 100
		AIS 120: Foundations of Data Science	3	-
		AIS 140: Programming with Python	3	CIT 100
		GED-Free Elective	3	-
		Total	18	
Second Year	First Semester	MAT 150: Numerical Analysis	3	MAT 110
		AIS 210: Object Oriented Programming	3	AIS 140
		AIS 230: Knowledge Representation	3	-
		AIS 250: Introduction to Artificial Intelligence	3	AIS 140
		AIS 270: Digital Systems	3	-
		IES 111: Innovation, Entrepreneurship, and Sustainability	3	-
		Total	18	
	Second Semester	AIS 220: Machine Learning	3	AIS 140, AIS 250
		AIS 240: Data Structures and Algorithms	3	AIS 140
		AIS 260: Fundamentals of Data & Network Communication	3	CIT 100
		MAT 160: Discrete Mathematics	3	MTH 100
		MAT 170: Optimization Techniques	3	MAT 140
		IES 112: Introduction to Environmental Sustainability	3	-
		Total	18	

Year	Semester	Courses	Credits	Prerequisites
Third Year	First Semester	AIS 310: Deep Learning	3	AIS 220
		AIS 330: Computer Vision	3	AIS 140
		AIS 350: Database Systems	3	AIS 240
		AIS 370: Cybersecurity Principles	3	CIT 100
		AIS 371: Human-Robot Interaction	3	AIS 140
		Total	15	
	Second Semester	AIS 320: Reinforcement Learning	3	AIS 220
		AIS 322: Natural Language Processing	3	AIS 250
		AIS 340: IoT and Robotics	3	AIS 270
		AIS 360: AI Systems Design and Deployment	3	AIS 220
		AIS 380: Artificial Intelligence Safety and Security	3	AIS 370
		Total	15	
Fourth Year	First Semester	AIS 410: Internship	6	90 cr. Hrs
		Total	6	
	Second Semester	AIS 420: Project Management	3	80 cr. Hrs
		One Major Elective	3	
		One Major Elective	3	
		AIS 440: Senior Graduation Project	3	AIS 410
		Total	12	
	Total Program Credits			120

Major Electives

No.	Course Code	Course Title	Prerequisite(s)	Cr.H
1	AIS 460	Advanced NLP	AIS 322	3
2	AIS 461	Advanced Computer Vision	AIS 330	3
3	AIS 462	Cloud Computing	AIS 260	3
4	AIS 463	Multi-Agent Systems	AIS 360	3
5	AIS 464	AI for Smart Cities	AIS 340	3
6	AIS 465	Medical Signal and Image Processing	MAT 150	3
7	AIS 466	3D Vision and Augmented Reality	AIS 330	3
Total (select ONLY two courses)				6

General Electives

No.	Course Code	Course Title	Prerequisite(s)	Cr.H
1	GED 130	Introduction to GIS	-	3
2	GED 140	Conceptual Physics	-	3
3	GED 150	Critical Thinking	-	3
4	GED 160	Psychology in Everyday Life	-	3
5	GED 162	Corporate Social Responsibility	-	3
6	GED 180	Human Behavior and Socialization	-	3
Total (select ONLY one course)				3