## **List of Courses**

# **Bachelor of Science in Artificial Intelligence**

Program Requirements	<b>Total Courses</b>	Total Credit Hours
General Education Courses	10 Courses	30 Credit Hours
Program Core Courses	12 Courses	36 Credit Hours
Program Specialization Courses	18 Courses	54 Credit Hours
Program Elective Courses	3 Courses	9 Credit Hours
Total	43 Courses	129 Credit Hours

#### General Education Courses | 10 Courses (30 Credit Hours)

SR.	Course Code	Course Name	Credit Hours	Pre-requisites
1	CIS 101	Computer Fundamentals	3	
2	ENG 101	English I	3	
3	HUM 101	Critical Thinking	3	
4	SSS 101	Study Skills	3	
5	ENG 102	English II	3	ENG 101
6	BUS 204	Innovation and Entrepreneurship	3	
7	ST 200	Introduction to Statistics	3	ST 102
8	ACS 101 ACSE 101	Communication Skills in Arabic Communication Skills in Arabic for non-Arabs	3	
9	ISLA 201 ISL 201	Islamic Culture (Arabic) Islamic Culture (English)	3	
10	UAE/A 201 UAE 201	UAE Studies (Arabic) UAE Studies (English)	3	

#### Program Core Courses | 12 Courses (36 Credit Hours)

SR.	Course Code	Course Name	Credit Hours	Pre-requisites
1	ST 101	Calculus I	3	
2	ST 102	Linear Algebra	3	ST 101
3	ST 103	Fundamentals of Computer Programming	3	CIS 101
4	ST 203	Database Management Systems	3	ST 103
5	ST 204	Data Structures and Algorithms	3	ST 103
6	ST 208	Probability Theory	3	ST 200
7	ST 205	Networking and Information Security	3	CIS 101
8	ST 207	Multimedia Technology	3	ST 103
9	ST 301	Discrete Structures and their Applications	3	ST 102
10	ST 305	Advanced Computer Programming	3	ST 103

11	ST 306	Parallel and Distributed Programming	3	ST 204
12	ST 308	Knowledge Management Systems	3	ST 203

## Program Specialization Courses | 18 Courses (54 Credit Hours)

SR.	Course Code	Course Name	Credit Hours	Pre-requisites
1	AI 101	Introduction to Artificial Intelligence	3	CIS 101
2	AI 201	Fundamentals of Natural Language Processing	3	AI 101
3	AI 202	Fundamental of Machine Learning	3	AI 101
4	AI 206	Computer Vision Systems	3	AI 201,AI 202
5	AI 302	Advanced Techniques in Machine Learning	3	AI 202
6	AI 303	Application of AI to Energy Transition	3	AI 201,AI 202
7	AI 304	Neural Networks and Deep Learning	3	AI 202
8	AI 307	Data Mining	3	ST 203,ST 204
9	AI 309	Fuzzy Logic	3	ST 301
10	AI 310	Research in Al	3	AI 302,AI 303
11	AI 401	Robotics	3	AI 310
12	AI 402	Human Computer Interaction	3	AI 206
13	AI 403	Data Science and Analytics	3	AI 307
14	AI 404	Advanced Topics in AI	3	AI 310
15	AI 405	Pattern Recognition Systems	3	AI 302,AI 303
16	AI 406	Autonomous Robotics	3	AI 401
17	AI 495	AI Internship	3	
18	AI 499	AI Capstone	3	

### Program Elective Courses | 3 Courses (9 Credit Hours)

SR.	Course Code	Course Name	Credit Hours	Pre-requisites
1	ST 407	Cybersecurity (Elective)	3	ST 205
2	ST 408	Digital Forensics (Elective)	3	ST 205
3	ST 409	Cloud Computing Concepts (Elective)	3	ST 205
4	AI 410	AI and Internet of Things (Elective)	3	ST 205,ST 207
5	ST 411	Block chain and Applications (Elective)	3	AI 303