

**Bachelor of Science in Artificial Intelligence Engineering
Study Plan (Fall Start)**

Total Credit Hours: 140

First Year (Freshman)

Semester 1

Code	Title	Cr.	Prerequisite
ARL101(A)	Comm. Skills in Arabic I	3	Nil
ECS100	Intro. to Engr. & Computing	3	Nil
MTT102	Calculus I	3	nil/MTT101
STT100	General Statistics	3	Nil
ISL100(A)	Islamic Culture	3	Nil
ENG200	English II	3	EPT/IELTS 6/ENG102

Total Credit Hours 18

Semester 2

Code	Title	Cr.	Prerequisite
FWS205	UAE and GCC Society	3	ENG102
OE1	Open Elective 1	3	
COE101	Introduction to Artificial Intelligence	3	STT100
PHY102	Physics & Engr. Applications I	3	MTT102
PHY102L	Physics & Engr. Applications I Lab	1	MTT102, PHY102(co)
MTT 200	Calculus II	3	MTT102

Total Credit Hours 16

Second Year (Sophomore)

Semester 3

Code	Title	Cr.	Prerequisite
CSC201	Computer Programming I	3	MTT101 or higher
PHY201	Physics & Engr. Applications II	3	PHY102
PHY201L	Physics & Engr. Applications II Lab	1	PHY102, PHY201(co)
EEN210	Digital Circuits	3	ECS100
COE202	Engineering Ethics, Economy, and Law	3	ENG200, MTT102
MTT202	Discrete Structures and Applications	3	STT100

Total Credit Hours 16

Semester 4

Code	Title	Cr.	Prerequisite
CSC202	Computer Programming II	3	CSC201
CEN333	AI-powered Cross-platform Mobile App. Develop.	3	CSC201
CEN201	Electric Circuits I	3	ECS100 or PHY201, EEN210
AIN305	Artificial Intelligence for Engineers	3	CSC201, MTT200, COE101
MTT205	Differential Equations	3	MTT200, MTT204(co)
MTT204	Introduction to Linear Algebra	3	MTT200

Total Credit Hours 18

Third Year (Junior)

Semester 5

Code	Title	Cr.	Prerequisite
CEN320	Signals and Systems	3	MTT205, CEN201
CSC301	Data Structures and Algorithms	3	CSC202, MTT202
CSC305	Data Communications and Networks	3	Junior Level
CEN304	Electronic Devices and Circuits	3	CEN201
AIN325	Edge AI	3	CEN325, AIN310
OE2	Open Elective 2	3	

Total Credit Hours 18

Semester 6

Code	Title	Cr.	Prerequisite
CEN330	Probability and Stochastic Processes	3	CEN320, STT100
EEN365	Control Systems for Robotics Engineers	3	MTT204, CEN320
FWS310	Fund. of Innovation & Entrepreneurship	3	ENG200, 60 credits
CEN401L	Embedded and IoT Lab	1	CEN425(co), EEN210
AIN425	Internet of AI-powered Things	3	AIN325
AIN310	Machine Learning and Pattern Recognition	3	CSC201, COE101, MTT200
CSC202L	Programming Lab	1	CSC201, CSC202(co)

Total Credit Hours 17

Summer Semester

Code	Title	Cr.	Prerequisite
AIN399i	Internship in Artificial Intelligence Engineering I	2	90 Credit Hours

Fourth Year (Senior)

Semester 7

Code	Title	Cr.	Prerequisite
GEN300	Numerical Methods	3	MTT205, CSC201
ME1	Major Elective 1	3	
AIN410	Deep Learning	3	AIN310
ME2	Major Elective 2	3	
AIN451	Artificial Intelligence Engineering Design Project I	1	Senior Status
CEN464	Digital Signal Processing	3	CEN320
CEN464L	Signal Processing Lab	1	CEN464(co)

Total Credit Hours 17

Winter Semester

Code	Title	Cr.	Prerequisite
AIN399ii	Internship in Artificial Intelligence Engineering II	1	AIN399i

Semester 8

Code	Title	Cr.	Prerequisite
AIN482	Natural Language Processing	3	AIN410
AIN475	Self-Driving Cars	3	AIN310, AIN325
AIN333	Mobile Computer Vision and Machine Learning	3	CEN333, Co-CEN454
AIN452	Artificial Intelligence Engineering Design Project II	2	AIN451
CEN454	Computer Vision and Machine Learning	3	CEN464, CEN330
ME3	Major Elective 3	3	

Total Credit Hours 17