BS in Artificial Intelligence

Professional Occupations

• Machine Learning Engineer
• AI Engineer
• AI Developer
• Data Scientist/Engineer
• Robotics Engineer/ Robotics Software Engineer.
• Computer Vision Programmer
• Artificial Intelligence Researcher

Program Overview

The BS of Artificial Intelligence program provides rigorous training to equip students with cutting-edge knowledge in AI and machine learning. Through a focus on technical skill development, innovation, and leadership, the program fosters a strong work ethic, social responsibility, environmental awareness, and a commitment to lifelong learning. The program goal is to prepare students for successful careers in AI and related advanced studies by delivering excellence in education, conducting impactful research, and engaging in community service, while addressing real-world challenges through AI-driven solutions.

Competitive Edge

Our Artificial Intelligence program is designed to provide a solid foundation in the main topics of the Artificial Intelligence body of knowledge. This foundation allows our graduates to excel in the design, development, operation, and maintenance of complex AI systems. Our faculty hold degrees from world-renowned western universities; additionally, our faculty have a high success rate in obtaining new research projects in both new and established disciplines. Furthermore, small class sizes provide students with the opportunity for individualized instruction.

Collaborators

مدينة الملك عبدالعزيز للعلوم والتقنية KACST
BOEING
MIT — Massachusetts Institute of Technology
BAE SYSTEMS
AUBURN UNIVERSITY
BUROHAPPOLD ENGINEERING
ABB
Shell
Henning Larsen
THALES
SCE القطاع السعودي للمهندسين
سابك sabic
IBM
IEEE
جامعة الملك عبدالله للعلوم والتقنية King Abdullah University of Science and Technology
ارامكو السعودية Saudi Aramco
AGH AGH University of Science and Technology

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http://coe.alfaisal.edu/departments/AI-home

Smart, desirable, feasible, marketable innovation to make the world better is what we do. IT's WHAT YOU'LL DO.

Alfaisal University
BS in AI | Study Plan Summary | Effective: Fall 2025

4 Year Curriculum: 133 Credit Hours Total

Freshman Year - Fall Semester

Course Code	Course-Title	CRHs
SE 100	Programming for Engineers	3
SE 100 L	Programming for Engineers Lab	1
MAT 101	Calculus I	3
PHU 103	Mechanics and Waves for Engineers	3
PHU 103 L	Mechanics and Waves for Engineers Lab	1
ENG 101	University Writing	3
ISL 101	Islamic Studies I	2
GE _ _ _	General Education Elective I	2
	Total	**18**

Freshman Year - Spring Semester

Course Code	Course-Title	CRHs
SE 120	Object-Oriented Programming I	3
SE 120 L	Object-Oriented Programming I Lab	1
SE 151	Discrete Mathematics	3
MAT 112	Calculus II	3
EE 210	Digital Logic Design	3
EE 210 L	Digital Logic Design Lab	1
ENG 222	Technical Writing	3
	Total	**17**

Sophomore Year - Fall Semester

Course Code	Course-Title	CRHs
DSE 200	Introduction to Data Science	3
DSE 212	Probability and Statistics for Engineers	3
SE 215	Data Structures	3
SE 215 L	Data Structures Lab	1
SE 239	Computer Networks	3
MAT 211	Calculus III	3
ARB 101	Arabic Language and Literature I	2
	Total	**18**

Sophomore Year - Spring Semester

Course Code	Course-Title	CRHs
SE 252	Database Management Systems	3
SE 252 L	Database Management Systems Lab	1
SE 254	Operating Systems	3
SE 254 L	Operating Systems Lab	1
DSE 201	Data Visualization	3
AI 213	Introduction to Artificial Intelligence	3
CSE 330	Introduction to Cybersecurity	3
	Total	**17**

Junior Year - Fall Semester

Course Code	Course-Title	CRHs
SE 201	Introduction to Software Engineering	3
SE 301	Analysis of Algorithms	3
SE 316	Application Development	3
AI 317	Computer Vision	3
AI 320	Data Mining	3
MAT 212	Linear Algebra	3
	Total	**18**

Junior Year - Spring Semester

Course Code	Course-Title	CRHs
AI 346	Introduction to Big Data	3
AI 347	Introduction to Machine Learning	3
AI 360	Agent Based Systems	3
AI 361	Human Centered AI	3
AI _ _ _	Technical Elective 1	3
	Total	**15**

Junior Year – Summer Semester

Course Code	Course-Title	CRHs
AI 390	Internship	0
	Total	**0**

Senior Year - Fall Semester

Course Code	Course-Title	CRHs
SE 400	Theory of Computation	3
AI 455	Generative AI	3
AI 475	Game Theory	3
AI _ _ _	Technical Elective 2	3
AI 495	Software Engineering Capstone Project I	3
	Total	**15**

Senior Year - Spring Semester

Course Code	Course-Title	CRHs
AI 480	Natural Language Processing	3
SE 481	Ethics and Professional Development	1
AI _ _ _	Technical Elective 3	3
AI _ _ _	Technical Elective 4	3
AI 496	Software Engineering Capstone Project II	3
GE _ _ _	General Education Elective II	2
	Total	**15**

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