Artificial Intelligence

Artificial intelligence (AI) uses computers and technology to achieve the outcomes of human problem- solving and decision-making abilities. It comprises methods to solve easy problems for humans but hard for digital computers, such as Natural Language Understanding, Natural Language Generation, and Image Understanding.

This program is suitable for many people with a quantitative background or experience dealing with data and who would like to obtain some grounding in artificial intelligence. Examples include software engineers who want to complement their programming skills with Machine Learning and Deep Learning modeling skills, pharmaceutical data analysts who explore the transition from traditional statistical analytics to contemporary deep learning models, and many more.

List of the requirements for the AI certification program are as follows:

12 credits are required, which can be satisfied by:

o 2 core courses (6 credits)

o 2 elective courses (6 credits)

Admission Requirements

Applicants should have a bachelor's degree and have some experience with programming and data analytics. Some experience with programming, equivalent to CS 602 (Java), and some experience in data analytics, equivalent to CS 482 (Data Mining).

What are the Courses to be taken?

Students must take a total of four courses, with the following compulsory core courses and elective courses to choose from.

Core courses:

Code	Title	Credits
DS 675	Machine Learning	3
DS 677	Deep Learning	3

Elective courses:

Code	Title	Credits
CS 634	Data Mining	3
DS 680	Natural Language Processing	3
DS 669	Reinforcement Learning	3
DS 789	Trustworthy Artificial Intelligence	3
CS 670	Artificial Intelligence	3
CS 681	Computer Vision	3
CS 659	Image Processing and Analysis	3

Sample course sequence:

1. CS 634, CS 670, DS 675, DS 677

2. DS 675, DS 677, DS 669, DS 680

3. DS 670, DS 675, DS 677, CS 681