

Artificial Intelligence

Graduate Certificate 18 Credit Hours

This program is offered by the George Herbert Walker School of Business & Technology, and is only available at the St. Louis home campus.

For information on the general requirements for a certificate, see Certificate Program Policies and Procedures under the Academic Policies section of this catalog.

Program Description

Artificial Intelligence (AI) is a rapidly-evolving branch of computer science focusing on analyzing data and making appropriate and effective decisions based on this analysis. A background on Artificial Intelligence and Machine Learning will be provided and the potential benefits of the technology in multiple areas will be described. Python will be introduced and used to resolve AI-related questions. The program will introduce Deep Learning and provide an understanding of many ways in which AI can provide support to multiple disciplines.

Learning Outcomes

At the end of the program, students will be able to:

- Explain the role of data analytics in organizational decision making.
- Utilize current analytical languages to manage key artificial intelligence requirements.
- Explain the fundamental aspects of artificial intelligence and the potential benefits to companies and organizations.
- Develop machine learning techniques and algorithms to resolve key artificial intelligence problems.
- Implement major algorithms and statistical models related to Machine Learning to solve problems in different areas of industry.
- Utilize Deep Learning methods to address topics in multiple disciplines.

Requirements

The 18 hours for the certificate in artificial intelligence requires the following courses:

- CSDA 5210 Databases and Data Warehouses (3 hours)
- CSAI 5210 Artificial Intelligence with Python (3 hours)
- CSDA 5230 Data Analytics (3 hours)
- CSDA 5320 Analytics Application using Python (3 hours)
- CSAI 5220 Machine Learning (3 hours)
- CSAI 5320 Deep Learning - Image, Video and Audio (3 hours)

Program Assessment

At the end of the final course, the program learning outcomes will be assessed through a detailed final exam.

Admission

See the Admission section of this catalog for general admission requirements. Students interested in applying must submit their application online at www.webster.edu/ apply. Transcripts should be sent from your institution electronically to transcripts@webster.edu. If this service is not available, send transcripts to:

Office of Admission
Webster University

470 E. Lockwood Ave.
St. Louis, MO 63119

Additional Requirements

Requirements for admission to the artificial intelligence certificate program include:

Preliminary Skills and Prerequisite Courses

To ensure adequate preparation in both information technology and business, an applicant to this artificial intelligence certificate program must have basic business knowledge and basic information technology knowledge. The Walker School of Business & Technology accepts individuals who have successfully graduated from undergraduate computer science, information systems, mathematics, business administration, management or similar degree programs and possess the basic business, mathematics and information technology knowledge.

Requirements

- Official transcripts from all of your previously attended colleges and universities (including community colleges and summer courses).
- To be eligible for this program, students must have either:
 - Earned an undergraduate degree in business, management, computer science, statistics, economics, biology (BS), chemistry (BS) or physics (BS).
 - OR**
 - Completed college-level algebra and statistics, in the last 5 years, with a B or better in both courses.
 - Have work experience that includes business, database and analytics.
- A phone interview or essay may be required.
- It is preferred that students have a business background and strong analytical skills.