Data Analytics

Graduate Certificate
18 Credit Hours

This program is offered by the George Herbert Walker School of Business and Technology. It is available online and at the St. Louis main campus.

STEM program

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

Data analytics is the science of interpreting vast amounts of complex data to make sound decisions. The graduate certificate in data analytics focuses on developing and applying data analytics skills to fulfill significant needs in the business community. Students will integrate business concepts as well as key methods and tools for large-size data modeling, analysis and solving challenging problems involving "Big Data." The program provides a strong foundation in data analytics by bringing together salient techniques from statistics, mathematics, computer science, business, accounting, finance and management in a realistic business context.

Learning Outcomes

- Compose query statements to implement the data definition and manipulation.
- Construct multidimensional data cubes analysis.
- Apply effective methods for analyzing, presenting and using informational data.
- Develop meaningful reports and visualization of business data analytics appropriate to a technical and non-technical audience.
- Articulate forecasting and predictive models for real-world analytical applications.

Requirements

- BUSN 5760 Applied Business Statistics (3 hours)
- CSDA 5110 Analytics Programming with R (3 hours)
- CSDA 5210 Databases and Data Warehouses (3 hours)
- CSDA 5310 Data Visualization (3 hours)
- CSDA 5320 Analytics Applications Using Python (3 hours)
- CSDA 5330 Machine Learning to Predictive Analytics (3 hours)

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 Admission Requirements

Requirements for admission to the Certificate in Data Analytics program include:

Preliminary Skills and Prerequisite Courses:

To ensure adequate preparation in both information technology and business, an applicant to this data analytics program must have basic business and information technology knowledge. The George Herbert 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 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, data science, statistics, economics, biology, chemistry, or physics **OR**
  - Completed college-level algebra and statistics, with a B or better in both courses
  - Have work experience that includes business systems, database and/or analytics
- It is preferred that students have a business background and strong analytical skills.

Graduate Certificates