Data Analytics - M.S.

Curriculum

The Data Analytics Master of Science degree program is designed to provide students with in-depth knowledge for applying statistical methods and tools to solve real-world problems using data. The program includes core courses in statistical topics as well as advanced applications of data analytics. Students delve into the areas of data mining, analytics, management and visualization, forecasting, modeling, and optimization and simulation which provide skills necessary to fill the current analytics gap and prepare students for both the technical and business challenges posed by big data.

Upon completion of the program, graduates are expected to:

- Integrate the knowledge of mathematics, statistics and computer science to collect, analyze and interpret data.
- Use data to drive organizational decisions and optimize performance.
- Conduct analysis for advanced data mining strategies to optimize model performance.
- Make recommendations based on the evaluation of the ethical, legal and political issues of data usage and its implications for a given application, market or population.

Data Analytics

Master of Science

Prerequisite Courses *		
FIT1040	Spreadsheet Design for Business Solutions (or passing grade on challenge exam)	3
Core Courses		
DATA5025	Tools for Data Analytics	3
DATA5050	Data Management	3
DATA5100	Statistical Analysis	3
DATA5150	Data Mining	3
DATA5200	Data Visualization	3
DATA5300	Big Data Analytics	3
DATA5350	Text & Web Mining Analytics	3
DATA5400	Introduction to Predictive Modeling	3
DATA5515	Advanced Topics in Predictive Analytics	3
DATA5550	Optimization Simulation	3
DATA5600	Research Methods in Data Analytics	3
DATA5700	Data Analytics Capstone	3
Total Credits		**36.0-39.0**

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Prerequisite courses must be completed prior to or concurrently with core courses.

Admissions Requirements

To be considered for admission into any JWU graduate degree program offered on campus,#the following documents must be submitted:

1. A completed graduate application for admission
2. Official or certified transcripts/mark sheets from all institutions attended, including proof of bachelor's degree and master's degree (if applicable) conferral. Transcripts issued to a student are not considered official unless in an unopened university envelope. When a graduate program application is submitted prior to completing requirements for the bachelor's degree, Graduate Admissions will consider the application and, if admissible, will offer an acceptance pending submission of final transcript verifying bachelor degree conferral. Without such verification, students may not be allowed to register for the current semester or continue enrollment, and will be in jeopardy of losing their academic status with the university.
3. Statement of Purpose: an essay explaining your motivation, aptitude and goals related to graduate-level study
4. Letters of recommendation. Graduate programs at JWU require two letters of recommendation. Recommendations should be from individuals qualified to attest to the applicant's potential for success at the graduate level of study.
5. Current résumé or CV
6. Candidates for the M.S. in Data Analytics program at JWU must have a minimum 3.0 cumulative grade point average. A bachelor's degree in any major will be considered for admission, although an IT-related major is preferred.