

# Data Analytics & Applications

The Master of Data Analytics & Applications prepares modern learners to develop the practitioner and leadership skills, knowledge, and expertise needed to successfully manage and implement enterprise-wide data analytics and applications projects and initiatives.

Offered in collaboration between the McKelvey School of Engineering's Sever Institute and the School of Continuing & Professional Studies, individuals will acquire relevant and practical knowledge of the data analytics and applications field; improve critical thinking and communication skills; expand capacity to tackle multidimensional, data-driven problems; and develop the leadership acumen needed to be successful in demanding senior management roles.

Contact: Jerome Farmer  
Phone: 314-304-2877  
Email: [jeromey.farmer@wustl.edu](mailto:jeromey.farmer@wustl.edu)  
Website: <https://caps.wustl.edu/items/mdaa/>

## Degree Requirements

The Master of Data Analytics & Applications program requires the successful completion of 30 units of graduate course work, including 21 units of required core courses and 9 units of electives. New students without evidence of math and programming proficiency will be required to take 6 units of bridge courses.\*

### Required Courses: 21 units

- Enterprise Data Management
- Analytics Applications
- Applied Data Analytics for Practitioners
- Data Engineering Foundations of Data Analytics
- Data Visualization and Storytelling
- Introduction to Relational Databases and SQL Programming
- Applied Machine Learning

### Elective Courses: 9 units

Choose from options such as the following:

- Applied Natural Language Processing
- Applications of Deep Neural Networks
- Applied Simulation Modeling
- Architectural Data Analytics Applications
- Special Topics in Data Analytics and Applications
- Applied Research Study

\* Proficiency in introductory statistics, linear algebra and Python are required for admittance into the program. The School of Continuing & Professional Studies and the McKelvey School of Engineering offer two introductory bridge courses covering these subject areas:

1. Foundations of Programming for Data Analytics & Applications (U71 DATA 5001).
  - a. Students with proficiency in Python may have the requirement to take Foundations of Programming for Data Analytics & Applications waived. Proficiency is established with a B or better in an introductory Python programming course or relevant work experience (as evaluated by the program director or delegated evaluator).
2. Foundations of Mathematics for Data Analytics & Applications (U71 DATA 5002).
  - a. Students with proficiency in introductory statistics and linear algebra may have the requirement to take Foundations of Mathematics for Data Analytics and Applications waived. Proficiency is demonstrated with a B or better in Introduction to Statistics and Linear Algebra courses.