Why a MS in Analytics degree?

The explosion of modern computing power and data acquisition techniques has created a job market that seeks people with a strong background in fundamental statistical analysis, operations research, management of information systems, and computer science. Today, corporations have come to realize that the collection and storage of large amounts of business operations data has become increasingly easy and inexpensive.

However, having the ability to analyze, make sense of the data, and use it as a predictive tool is what gives a corporation a competitive edge. Data analysts are professionals who have the analytical and technical expertise to make sense of the data. The MS in Analytics at BGSU is designed to position students for a successful career in analytics.

Why a MSA at Bowling Green State University?

The MSA at BGSU is an interdisciplinary graduate program that involves four departments across two colleges. BGSU already thrives on its nationally recognized faculty, as well as strong undergraduate and graduate programs in statistics, operations research, management of information systems and computer science. BGSU has embraced a long-standing tradition of collaborations among faculty from these fields. These strengths and traditions at BGSU put the University in a unique position to offer a high-quality MS in Analytics degree.

Learning outcomes

As a graduate of the MSA program, you will possess a thorough understanding of statistical techniques pertaining to descriptive and predictive analytics, and operations research techniques pertaining to prescriptive analytics. You will also have a thorough understanding of computer algorithmic, database management, and business intelligence techniques, as well as software and hardware platforms pertaining to big data analytics.

Other highly sought-after areas of expertise include a keen understanding of how analytics are applied to critical tasks facing business decision-making, and the ability to communicate effectively orally, in writing and through the use of creative data presentation and visualization.

Program strengths and uniqueness

- Full-time, cohort, 12-month program
- Focus on hands-on experience and applications
- Analytical skills in descriptive, predictive and prescriptive analytics
- Technical skills in database management, business intelligence and big data analytics
- Soft skills in management and leadership
- An integrated experience in analytics projects
- Taught by full-time faculty
- Collaborations with the Center for Business Analytics

Professional opportunities

According to a report by the McKinsey Global Institute, the U.S. is expected to have a shortfall of 140,000-190,000 people with critical analytical skills by 2018.

Graduates with a MSA degree are already in high demand, and as more companies begin to tap into big internal and external data sets, the demand for these jobs with excellent pay, benefits and career advancement opportunities will continue to increase.

FOR MORE INFORMATION

Contact Graduate Coordinator, Keith Ramsdell, at msanalytics@bgsu.edu or visit www.bgsu.edu/msanalytics.
Admission requirements
The program strongly recommends that applicants have a minimum of a 3.0/4.0 undergraduate grade point average (GPA). Applicants are required to submit an official transcript from all colleges and universities attended. They are also required to submit official scores from the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT).

All applicants must submit a statement of purpose and three (3) letters of recommendation. Submission of a current professional resume is strongly suggested.

International applicants are also required to submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Entering students should have a background in calculus, statistics and computer programming. The prerequisites may be satisfied by one of the following: undergraduate course completion, taking MSA 5000 and/or MSA 5001, or substantial practical professional experience.

What is the cost of tuition?
Please refer to www.bgsu.edu/offices/bursar for current information on tuition and fees.

Funding options
Domestic students enrolled in four (4) or more credit hours are eligible to apply for financial aid using the Free Application for Federal Student Aid (FAFSA) to calculate student contribution and financial need. You may apply online at www.fafsa.ed.gov.

How to apply
Visit the BGSU Graduate College website at www.bgsu.edu/graduate/admissions.

Application deadline, fall term: July 15
Application deadline, spring term: N/A

Curriculum
Summer Prerequisites
- MSA 5000 Essentials in Mathematics and Statistics 2 hours
- MSA 5001 Essentials in Computer Programming 2 hours

Upon review by the Program Coordinator, these courses may be waived for applicants who have prior coursework in college calculus, statistics and computer programming.

Fall
- MSA 5020 Regression Analysis 3 hours
- MSA 5400 Database Management 3 hours
- MSA 5470 Exploratory Data Analysis 3 hours
- MSA 6010 Decision Optimization 3 hours
- MSA 6701 Analytics Project I 1 hour

Spring
- MSA 5160 Time-Series Analysis and Forecasting 3 hours
- MSA 5600 Business Intelligence 3 hours
- MSA 6440 Data Mining 3 hours
- MSA 6500 Big Data Analytics 3 hours
- MSA 6702 Analytics Project II 1 hour

Summer
- MSA 6450 Advanced Data Analytics 3 hours
- MSA 6600 Project Management 3 hours
- MSA 6703 Analytics Project III 1 hour

TOTAL SEMESTER HOURS: 39 HOURS