

MASTER OF SCIENCE IN ANALYTICS



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.

FOR MORE INFORMATION

Contact Program Director, Tammy Oelkrug,
at msanalytics@bgsu.edu or (419) 372-7671.
Visit us online at www.bgsu.edu/msanalytics

Program strengths and uniqueness

- Full-time, cohort, 12-month program
- Interdisciplinary program including courses in Accounting and Management Information Systems, Applied Statistics and Operations Research, Computer Science, and Mathematics and Statistics
- Approved for affiliation as a Professional Science Master's degree by the Commission on Affiliation of PSM Programs which provides a competitive advantage for graduates
- Focus on hands-on experience and applications, including an integrated experience in analytics project
- 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
- Taught by full-time faculty

Professional opportunities

In a 2017 Report, the Business-Higher Education Forum, a nonprofit membership group of Fortune 500 CEOs, college leaders and the consulting firm PricewaterhouseCoopers, found that by 2020, about 2.72 million job postings will seek workers with skills in data science and analytics (DSA). The analysis also found the demand for DSA skills is growing in all industries, and revealed that by 2021, 69% of employers expect candidates with DSA skills to get preference for jobs in their organizations.

Graduates with the MSA degree are in high demand, and as companies 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.



"My experience in the MSA program at BGSU was incredible. I chose this rigorous program not only for the single year curriculum that allows students to quickly re-enter the workforce, but also for the quality of the program. Our instructors have teaching and research expertise in multiple disciplines. I have also fallen in love with the city, campus and student community."

- Andrew C. Savage, '17

Admission requirements

The program strongly recommends that applicants have a minimum of a 3.0 undergraduate grade point average (GPA). Applicants are required to submit scanned copies of official or unofficial transcripts from all institutions attended. Upon admission, final official or notarized copies of transcripts from all institutions where degrees were earned and diplomas from international institutions must be submitted. Applicants 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 letters of recommendation. Submission of a current professional resume is strongly suggested.

International applicants are also required to submit scores from the International English Language Testing System (IELTS), the Pearson Test of English Academic (PTEA), or the Test of English as a Foreign Language (TOEFL). Successful completion of ELS 112 will also be accepted for this requirement.

The MSA program requires prerequisites including at least one college-level course in each of the following areas: calculus, statistics and computer programming. These prerequisites may also be satisfied with significant professional experience.

Cost of tuition

Please refer to www.bgsu.edu/offices/bursar for current information on tuition and fees.

Financial assistance

Financial assistance is available for full-time students through graduate assistantships and tuition scholarships on a competitive basis. The amount of funding is primarily based upon the strength of the applicant's undergraduate academic credentials. For more information, please contact the graduate coordinator.

Domestic students enrolled in four or more credit hours are also 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 only: July 15

Curriculum

A total of 33 credit hours of coursework at the graduate level are required.

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:

33 HOURS

