

# Certificate in Business and Managerial Analytics

Business decision making is increasingly complex due to the availability of data on virtually every aspect of a business. Today's business professionals need to understand and rely on accurate data analysis to leverage organizational knowledge, make data-driven decisions, and maximize competitive advantages.

Accordingly, this program is designed for students who want to understand how to leverage an organization's data to inform business decision making and risk reduction. Through elective focus areas, students may build industry-specific analytics knowledge and experience.

## Big Data & Jobs

According to the U.S. Bureau of Labor Statistics, employment of data scientists and analysts is projected to grow 36 percent from 2023 to 2031, much faster than the average for all occupations.

### Core Requirements | 6 credits

- MBA 6100: Business Analytics
- COSC 6520: Data Analytics

### Skills Courses | at least 2 credits

- ECON 6114: Introduction to R Programming
- ECON 6116: SQL
- ECON 6118: Python Programming

## Program Admission and Faculty Contact

### Admission

Foundational statistical knowledge is needed for program success. Programming knowledge is not required for admission. The GMAT/GRE is not required for GSM certificate program applications. Please visit the GSM website for admission details and the application website.

### Questions

Please contact Program Director Professor Scott Rex, [scott.rex@marquette.edu](mailto:scott.rex@marquette.edu)

### Electives and Elective Focus Areas | 6 credits

#### Communication Analytics

- ADPR 5350: Social Media Analytics and Measurement
- COMM 6002: Communication Research in Action
- COMM 6815: Digital Communication Strategies in Metrics

#### Economic Analytics

- ECON 6560: Applied Econometrics
- ECON 6561: Applied Time-Series Econometrics and Forecasting

#### Finance Analytics

- FINA 5075: FinTech Foundations and Applications
- MSF 6520: Financial Econometrics

#### Health Care Analytics

- HEAL 6830: Quality Improvement Science in Health Care
- HEAL 6835: Health Care Informatics, Technology and Professional Issues

#### Marketing Analytics

- MARK 6130: Customer Relationship Management
- MARK 6160: Marketing Research
- MARK 6165: Marketing Analytics

### Electives Only

With prerequisite eligibility, students may complete 6 credits from multiple elective areas above.

### Course Waivers

Up to three credits within the BMAN Certificate may be waived through (1) completion of up to three graduate-level credits within the BMAN curriculum (core, skills and/or elective courses) prior to entering the certificate or (2) earning a B or better in one of the undergraduate and elective waiver eligible courses in the departments of Computer Science, Mathematical and Statistical Sciences, Advertising, Economics, and engineering majors in Biomedical, Civil, Mechanical, Electrical and Computer Engineering.

