BUSINESS ANALYTICS (M.S.)

https://paulcollege.unh.edu/program/ms/business-analytics

Description

The Master of Science in Business Analytics (MSBA), offered by the Peter T. Paul College of Business and Economics, prepares students for careers related to data analytics and quantitative decision making in modern organizations. Graduates from the MSBA program will be armed with skills in data storing/pre-processing/visualization, in building prediction/forecasting models, and in formulating/solving optimal business decision problems when faced with limited resources. The MSBA program places heavy emphasis on building both the theoretical fundamentals and the practical applications of business analytics supported by relevant and modern programming skills. In addition, the MSBA curriculum is designed to foster teamwork and presentation skills that will help students to seamlessly transition into relevant corporate roles.

The MSBA is a STEM-designated program and consists of 12 courses totaling 36 credit hours of coursework (10 required courses and 2 elective courses from a suggested list). Each course follows an 8-week-long term. The program can be completed in 9 months (taking three courses per term), 12 months (taking two to three courses per term), or 28-33 months (taking one course per term). The MSBA program requires that applicants possess an introductory level of exposure to Calculus and programming. General familiarity with basic concepts from Calculus I, Calculus II (e.g. functions, derivation, and integration), and Linear Algebra (basic matrix operations) as well as prior exposure to at least one programming language (C++, Python, R, Java, SQL, etc.) are highly desirable. Any students without Calculus, Linear Algebra, and programming fundamentals will have access to resources to acquire the relevant background prior to joining the program.

In addition, applicants are required to have a bachelor's degree and to submit a GMAT or GRE test score from within the last five years. The emphasis will be on the quantitative score for both tests, and waivers will be considered on a case-by-case basis. International students are also required to submit a TOEFL score (waivers will be considered on a case-by-case basis).

The field of Business Analytics has grown rapidly over the last few years due to technological advancements and the ease of access to data for decision making in organizations ranging from small to large. Every firm is interested in hiring and training individuals with analytical capabilities to sustain competitive advantage in the marketplace. A list of examples of careers in business analytics is as follows:

- Business Analytics & Optimization Consultant
- Business Case Modeling Analyst/Consultant
- Business Intelligence Analyst
- Decision Science Analyst
- Analyst & Planner (Six Sigma)
- Internal Quantitative Marketing Strategy Consultant
- Manager of Modeling and Analytics
- Pricing & Revenue Optimization Analyst
- Project Manager/Promotion Response Analytics
- Quantitative Analyst – Asset Allocation
- Quantitative Analyst – Insurance Risk
- Quantitative Marketing Solutions Director & Manager
- Quantitative Modeler

Requirements

The MSBA program requires students to take 12 courses (a total of 36 credit hours), from which 10 are required and 2 are electives. A listing of core courses is below. Part-time students take one course per term; full-time students take two or three courses per term.

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Student Learning Outcomes

- Students will demonstrate knowledge of content areas of business analytics.
- Students will demonstrate the ability to solve complex problems.
- Students will demonstrate effective oral communication behaviors.
Business Analytics (M.S.)

- Students will demonstrate effective written communication behaviors.
- Students will demonstrate ability to cleanse, aggregate, and visualize data.
- Students will apply statistical inference techniques to business problems.
- Students will effectively develop and interpret optimization & simulation software output.