Business Analytics

Department Information

- **Program Coordinator:**
  Fred Riggins, Ph.D.
- **Email:**
  fred.riggins@ndsu.edu
- **Department Location:**
  200 Barry Hall
- **Department Phone:**
  701-231-5845
- **Department Web Site:**
  https://www.ndsu.edu/business/
- **Credential Offered:**
  M.S., Certificate
- **Test Requirement:**
  GMAT or GRE

Program Description

The Master of Science in Business Analytics (MSBA) program at North Dakota State University is a non-thesis, professional program structured to serve qualified students with undergraduate degrees in a variety of fields. The program is particularly attractive to students with undergraduate degrees in business, computer science, engineering, and statistics. The program is designed to provide the student with advanced applied problem solving skills and an understanding of business analytics methodologies and tools mastery. Students get hands-on experience with the most up-to-date tools and methodologies for data management, data modeling, visualization, and data mining.

NDSU business analytics faculty use a variety of teaching methods including case studies, group and individual projects, computer applications, student presentations, and discussion. Many classes take place in the Barry Hall computer labs. The program has a significant capstone experience where students work with local companies analyzing real data and solving real-world problems with data. The program is designated as a STEM program reflecting the technical nature of current data analysis practices.

- Transcripts showing completion of a baccalaureate degree from an institution with full accreditation for that degree. An undergraduate degree in business, economics, mathematics, statistics, engineering, computer science, or a related field is preferred, but not required.
- Students applying for the program should submit recent GMAT or GRE scores.

Individuals seeking admission to the MSBA program may request a waiver of the GMAT/GRE requirement if they meet one of the following requirements:

- The applicant holds a terminal degree (e.g., PhD, MD, JD).
- The applicant has a minimum of five (5) years of recent, post-bachelor's, full-time, professional work experience that is relevant to business analytics and data science.

Appropriate documentation (i.e. official transcript, Statement of Purpose, resume) is required to be uploaded to the application file. It does not, however, guarantee a waiver. Applicants should request the waiver in their Statement of Purpose and provide the rationale for the waiver request. Applicants are reviewed on a case-by-case basis, and waiver approval is determined at the discretion of the MBA program coordinator.

- Entering students should possess strong technical, quantitative, and analytical abilities as demonstrated by prior academic coursework or through work experience. Proficiency in at least one computer programming language should be demonstrated based on academic transcripts, certificates from face-to-face or online courses, or work experience.
- A Statement of Purpose discussing your strengths and weaknesses, and reason(s) for pursuing this degree.

All two-credit courses are offered in the evening during the academic year to accommodate students who are working full-time in their professions. These evening classes meet one night per week for eight weeks. Three-credit courses are typically offered during the day, evening, online, and/or in the summer.

All students take a minimum of 30 credit hours of approved graduate courses.

Program Curriculum

**MSBA Program Curriculum (30 credits):**
Data Analysis Foundations (5 credits)

- STAT 725 – Applied Statistics (3 credits) (existing course)
- MBA 751 – Business Analytics Concepts (2 credits) (existing course)

Business Analytics Foundations (8 credits)

- MBA 752 – Business Analytics Strategy (2 credits) (existing course)
- MBA 753 – Business Analytics Methods (2 credits) (existing course)
- MBA 722 – Marketing Analytics and Customer Intelligence (2 credits) (existing course)
- MBA 723 – Digital Marketing (2 credits) (existing course)

Business Analytics Advanced Courses (8 credits)

- MSBA 710 – Database Management (2 credits) (new course)
- MSBA 720 – Visualization and Reporting (2 credits) (new course)
- MSBA 740 – Advanced Business Analytics Methods (2 credits) (new course)
- MSBA 790 – Seminar in Business Analytics (2 credits) (new course)

Business Analytics Focus and Field Experience (9 credits)

- MSBA 795 – Capstone Project I, II, and III (6 credits) (new course)
- Elective (3 credits) choose from approved list or with advisory’s approval

Graduate courses must be taken through North Dakota State University.

* Approved electives must be 600- or 700-level courses in the College of Business, or a related area, taught by graduate faculty, and approved by the MSBA Program Director and the NDSU Graduate School. # Students who take MBA 751, MBA 752, MBA 753, and MBA 722 may receive a Graduate Certificate in Business Analytics.

Somnath Banerjee, Ph.D.
University of Central Florida, 2015
Field: Marketing

James Caton, Ph.D.
George Mason University, 2016
Field: Economics

Linlin Chai, Ph.D.
Iowa State University, 2016
Field: Marketing

Anne Denton, Ph.D.
University of Mainz, 1996
Field: Computer Science

Supavich Pengnate, Ph.D.
Oklahoma State University, 2013
Field: Management Information Systems

Frederick Riggins, Ph.D.
Carnegie Mellon University, 1994
Field: Management Information Systems

Limin Zhang, Ph.D.
University of Arizona, 2005
Field: Management Information Systems