Master of Science in Business Analytics

Benedictine University's Master of Science (M.S.) in Business Analytics

The Master of Science (M.S.) in Business Analytics at Benedictine University is a new and exciting program that leverages the decades-long expertise of our faculty members. Benedictine's graduate business programs have been preparing professionals for rapid advances in technology, intense global competition and more complex business environments for more than 50 years.

The M.S. in Business Analytics focuses on the skills, technologies, applications and practices for iterative exploration and investigation of past business performance in order to gain valuable insights that drive business planning. It makes extensive use of data, statistical and quantitative analysis, explanatory and predictive modeling, and fact-based management to drive decision-making. Data-driven companies treat their data as a corporate asset and leverage it for competitive advantage.

Examples of business analytics uses include:
- Exploring data to find new patterns and relationships
- Explaining why a certain result occurred
- Simulate business decisions to facilitate business planning and execution
- Forecasting future results

The program is appropriate for students in information technology or other areas of business because it leverages information technology and business thinking to turn data into actionable intelligence. The program is designed for students who have an interest in quantitative methods, exploring and uncovering relationships through data analysis, using data to solve business problems, and entering or advancing a career in business analytics.

Benedictine offers an innovative course of study that integrates the M.S. in Business Analytics body of knowledge with the student's choice of a concentration. Students may choose from concentrations in Business Administration, Forensic Accounting, Health Information Systems Management, Management Information Systems, Marketing and Professional Internship. These concentrations and additional electives are not only applicable to a student's profession, but are also key in broadening a student's perspective.

The program gives students the unique opportunity to interact with graduate students in all of Benedictine's Accountancy, Business Administration, Management Information Systems and Public Health programs. The exposure to other students with different talents, experiences and job responsibilities is a major component in each student's development of business analytics skills.

▲ Program Overview

▼ Program Concentrations

Business Administration
The Business Administration concentration provides exposure to the major business functions of accounting and finance along with operations management and supply chain management. It is most appropriate for students who have or expect to have significant experience within these areas of an organization. It is also appropriate for those students who are considering a Master of Business Administration (M.B.A.) as a dual degree.

Forensic Accounting
The Forensic Accounting concentration is intended for students with a background in accounting who are interested in gaining the skills and knowledge necessary for the certified public accountant (CPA) exam or certified fraud examiner (CFE) exam. It is also appropriate for students who are considering a Master of Science (M.S.) in Accountancy as a dual degree.

Health Information Systems Management
The Health Information Systems Management concentration establishes a foundation for the M.S. in Business Analytics student to pursue an interest in the health care field. It is important for business analytics and health care professionals to effectively manage and apply appropriate tools to solve health care issues and problems. This concentration is also appropriate for students considering a Master of Public Health (M.P.H.) as a dual degree.

Management Information Systems
The Management Information Systems concentration addresses the current competitive environment in business, health care and other settings that rely on information systems and resources for the successful management of day-to-day operations and the implementation of long-term strategies. For many organizations, the creative application of information technology is directly associated with a substantive competitive advantage.

Marketing
The Marketing concentration is for students interested in developing a broad range of skills in marketing or more focused skills in data analysis for direct mail, advertising and strategic marketing communications. Students who have experience or are interested in pursuing roles in marketing management, planning and agency marketing are able to enhance their skills with this concentration.

Professional Internship
The full-time internship program is developed specifically for recent college graduates and offers a professional internship experience as part of the M.S. in Business Analytics concentration. Students complete 64 quarter credit hours in M.S. in Business Analytics courses, including 12 quarter credit hours in internship courses. The goal of the internship experience is to prepare students for a career by providing them with an experience that allows them to adapt and demonstrate future roles and responsibilities in the workplace.

The M.S. in Business Analytics program requires 64 quarter credit hours, integrating 36 quarter credit hours of core courses, 12 quarter credit hours of elective courses and 16 quarter credit hours of courses in one of several concentrations: Business Administration, Forensic Accounting, Health Information Systems Management, Management Information Systems, Marketing and Professional Internship Program.

The curriculum is offered in a structured yet flexible format with required and elective courses offered annually. By completing two courses (eight credit hours) per term as a full-time course of study, professionals may earn their M.S. degree in Business Analysis in two years. Program advisors can help students matriculate into the program at each of the four quarters (Fall, Winter, Spring or Summer). An advisor may also devise a part-time program of study.

Dual Degree Options

Students who earn the M.S degree in Business Analytics may wish to consider completing a second graduate degree for an additional 32 credit hours in Accountancy, Business Administration or Management Information Systems. Application and admission are required to each graduate program, and students must complete all requirements for the selected dual degree.

▲▼ Curriculum

Business Analytics Core Courses (36 credit hours)

MBA 541	Analytical Tools for Management Decisions (4)
MIS/MSBA 659	Business Analytics (4)
MIS 674	Database Management Systems (4)
MIS/MSBA 663	Data Mining and Business Intelligence (4)
MSBA 685	Data Visualization (4)
MSBA 686	Analytics for Big Data (4)
MSBA 687	Data Warehousing (4)
MIS 683	Project Management (4)
MSBA 689	Business Analytics Capstone (4)

Business Analytics Elective Courses (12 credit hours)

MSBA 600	Independent Study (1-4)
MSBA 623	Web Analytics (4)
MSBA 641	Optimization Techniques for Management Decisions (4)
MSA 606	Forensic Accounting (4)
MSA 607	Fraud Examination (4)
MBA/MSA 608	Fraud and the Legal Environment (4)
MIS 609	Computer Fraud (4)
MIS 616	Information System Auditing (4)
MIS 677	Decision Support and Knowledge-based Systems (4)
MBA 613	Business and Economic Forecasting (4)
MBA 630	Operations Management (4)
MBA 632	Supply Chain Management (4)
MBA 626	Strategic Managerial Communications (4)
MBA 662	Brand Management (4)
MBA 665	Marketing Research (4)
MGMT 530	Organizational Behavior (4)
MGMT 581	Team Building (2)
MSBA 690	Business Analytics Internship (1-4)

Business Analytics Concentrations (16 credit hours)

- Business Administration
- Forensic Accounting
- Health Information Systems Management
- Management Information Systems
- Marketing
- Professional Internship

Please visit www.ben.edu/catalogs for more program information, including course descriptions. Please visit www.ben.edu/benulive for the online schedule of M.S. in Business Analytics, M.S. in Accountancy, M.S. in Management Information Systems, M.B.A., M.S. in Management and Organizational Behavior and M.P.H. courses available each quarter.

▲▼ Program Options

4+1 M.S. in Business Analytics Program

Well-qualified Benedictine University students who complete an undergraduate major in Accounting, Business Analytics, Business and Economics, Business with Science Applications, Computer Information Systems, Economics, Finance, International Business and Economics, Management and Organizational Behavior or Marketing may be eligible to complete the M.S. in Business Analytics in one additional year of full-time graduate study. The full-time 4+1 M.S. in Business Analytics program is developed specifically for recent college graduates. Admission to the program is not automatic and an application must be completed during the student's senior year of undergraduate coursework. Classes are conducted on evenings and weekends to meet the needs of busy students.

"Business analytics has become a requirement of conducting business today. It's no longer optional. Analytics provides an infrastructure for making informed decisions.

Today's data-driven companies are able to remain competitive by relying on decisions derived from analytics rather than anecdotal evidence.

Companies are moving beyond basic reporting and dashboards to robust predictive analysis and optimization. The demand for analytics professionals has far outstripped the supply of competent analysts. To be successful, today's analysts need to pair technical skills with business knowledge. Balancing technical skill and business knowledge is critical for any analytics implementation to be successful."

—Nathan Patrick Taylor, M.S.'08, M.P.H.'06
Lecturer in the M.S. in Business Analytics program

▼ Full-Time Faculty

Barbara T. Ozog, Ph.D.
Program Director and Professor, Master of Science in Management Information Systems (1992)
Ph.D., 1985, M.S., 1979, Northwestern University
B.S., 1977, Loyola University Chicago

Ron P. Baiman, Ph.D.
Assistant Professor, Department of Graduate Business Administration (2013)
Ph.D., 1992, M.A., 1981, New School for Social Research
B.Sc., 1973, Hebrew University

Sharon Borowicz, Ph.D., EA
Associate Professor and Department Chair, Department of Graduate Business Administration (2005)
Ph.D., 2003, Benedictine University
M.B.A., 1992, Roosevelt University
B.S., 1982, Elmhurst College

Eileen G. Clark, M.S.
Associate Professor, Computer Science and Information Systems (1971)
M.S., 1971, Purdue University
B.S., 1969, State University of New York (Albany)

John C. Draut, M.B.A.
Instructor and Program Director, Master of Science in Accountancy (2008)
M.B.A., 1981, DePaul University
B.S., 1970, University of Illinois

Ricky M. Holman, J.D.
Assistant Professor, Department of Graduate Business Administration (2013)
J.D., 1988, Thomas M. Cooley Law School
B.S., 1977, George Mason University

Ralph D. Meeker, Ph.D.
Professor, Physics, Computer Science and Information Systems (1970)
Ph.D., 1970, Iowa State University
B.S., 1967, Benedictine University

Daniel E. Nohl, Ph.D.
Program Director and Professor, Computer Science and Information Systems (1987)
Ph.D., 1990, Illinois Institute of Technology
M.S., 1977, B.S., 1973, University of Illinois

Peter F. Sorensen Jr., Ph.D., RODC
Chair and Professor, Department of Management and Organizational Behavior (1985)
Ph.D., 1971, Illinois Institute of Technology
M.A., 1966, B.A., 1961, Roosevelt University

Apostolos Xanthopoulos, Ph.D.
Assistant Professor, Department of Graduate Business Administration (2013)
Ph.D., 2009, Illinois Institute of Technology
M.B.A., 1989, M.A., 1988, University of Texas at Arlington
B.B.A., 1985, Kent State University

Therese F. Yaeger, Ph.D.
Professor, Department of Management and Organizational Behavior (2007)
Ph.D., 2001, M.S., 1996, B.A., 1995, Benedictine University

Thomas Yu, Ph.D.
Assistant Professor, Department of Graduate Business Administration (2008)
Ph.D., 1978, Texas A&M University
M.S., 1973, Arizona State University
B.S., 1971, Montana State University

Date in parenthesis indicates year joined Benedictine University faculty.

▼ Lecturers

Senior Lecturers

George Chakrabarty, M.B.A., MCPM
Ann H. Fulmer, M.S.
Edwin J. Kocinski, M.B.A.
John Malec, M.A.
Bernard Silverman, Ph.D.
James C. Zoda, Ph.D.

Lecturers

Ruth Chen, Ph.D.
Tsun Chow, Ph.D.
Robert A. Dengler, Ph.D.
Bryan J. Eckert, M.B.A.
Chris Fernandez, Ph.D.
William H. Kuglich, M.S.
Sam Russo, M.S., M.B.A.
Greg Sellers, Ph.D.
Martin Mark Sowa, M.A., M.B.A.
Nathan Patrick Taylor, M.S., M.P.H.

The individuals listed above have been employed on an as-needed basis to teach courses at Benedictine University within the last several years. Instructors listed may not currently be employed by Benedictine University. The University is fortunate to be able to provide our students with part-time faculty whose experience, credentials and commitment to education add to the high quality of our resident faculty.

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