

# **Business Analytics**



Benedictine University

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

The Master of Science (M.S.) in Business Analytics at Benedictine University is an 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 program 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
- Simulating 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.

The curriculum is offered in a structured yet flexible format with required and elective courses offered annually. By completing two courses (8 quarter credit hours) per term as a full-time course of study, professionals may earn their M.S. degree in Business Analytics 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.

### Curriculum • • •

### **Business Analytics Core Courses (36 quarter 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 Machine Learning (4)
MSBA 685 Data Visualization (4)
MSBA 686 Analytics for Big Data (4)
MSBA 687 Data Warehousing (4)
MIS/MBA 683 Project Management (4)
MSBA 689 Business Analytics Capstone (4)

### **Business Analytics Elective Courses (12 quarter 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 626 Strategic Managerial Communications (4)

MBA 630 Operations Management (4)
MBA 632 Supply Chain Management (4)
MBA 662 Brand Management (4)

MBA 665 Principles of Marketing Research (4)

MGMT 530 Organizational Behavior (4)

MGMT 581 Team Building (2)

MSBA 690 Business Analytics Internship (1-4)

### **Business Analytics Concentrations (16 quarter credit hours)**

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

Please visit ben.edu/registrar for more program information, including course descriptions. Please visit 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.

### **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 quarter 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.

## **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

# M.:

# Full-Time Faculty • • •

### Ron P. Baiman, Ph.D.

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

### Sharon Borowicz, Ph.D., EA

Associate Professor, Master of Business Administration, Master of Science in Accountancy and Master of Science in Taxation Programs (2005) Ph.D., 2003, Benedictine University M.B.A., 1992, Roosevelt University B.S., 1982, Elmhurst College

### John C. Draut, M.B.A.

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

### Ricky M. Holman, J.D.

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

### Daniel E. Nohl, Ph.D.

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

### Barbara T. Ozog, Ph.D.

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

### Peter F. Sorensen Jr., Ph.D., RODC

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

### Therese F. Yaeger, Ph.D.

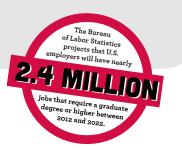
Professor, Department of Management and Organizational Behavior Program (2007) Ph.D., 2001, M.S., 1996, B.A., 1995, Benedictine University

#### Thomas Yu, Ph.D.

Assistant Professor, Department of Graduate Business Administration Program (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. Ronald G. Revers, Ph.D. Bernard Silverman, Ph.D. James C. Zoda, Ph.D.

### Lecturers

Ruth Chen, Ph.D.
Tsun Chow, Ph.D.
Bryan J. Eckert, M.B.A.
Chris Fernandez, Ph.D.
William H. Kuglich, M.S.
Edmund M. Manrique, M.S., M.B.A.
William Payne, 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.
Derrick Walters, Ed.D. (ABD), M.B.A., PMP, ITIL

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.



Benedictine University is located in Lisle, Illinois, just 25 miles west of Chicago, and has branch campuses in Springfield, Illinois, and Mesa, Arizona. Founded as a Catholic university in 1887, Benedictine enrolls 10,058 students in 56 undergraduate and 20 graduate programs.

The Annual Security Report and Annual Fire Safety Report are available at ben.edu/police.

For more information, call the Enrollment Center at (630) 829-6300, email admissions@ben.edu or visit ben.edu.

Benedictine University · 5700 College Rd. · Lisle, IL 60532

Accredited by the Higher Learning Commission.