



ISOM 608 – Business Analytics

Spring 2026

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Class time: Asynchronous online | **Office hours:** MWF 1-3 PM (online) or by appointment

COURSE DESCRIPTION

This course introduces the essential concepts in business analytics. The topics include database analytics, data visualization, data mining, spreadsheet modeling, data mining, forecasting, simulation, linear optimization, and optimization analytics.

TEXTBOOK

Business analytics, 3rd edition by James R. Evans. Pearson. ISBN-13 978-0135231678.

(No publisher access code needed, only the textbook is required).

PREREQUISITES:

Prerequisite: ECON 221 or BUSA 602 or MBA 611 or equivalent.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

COURSE OBJECTIVES

- Understand the concepts and tools of business analytics
- Increase the student's ability to apply data analytics tools for business decision-making
- Improve the student's ability to communicate effectively with accurate data analysis

ASSURANCE OF LEARNING

The Miller College of Business is committed to ensuring that every student who graduates with an MBA degree is competent in four areas that are crucial to success in business. These learning

goals can be easily remembered with the acronym **LEAD** (Leadership, Ethics, Analytics, and Decision Making).

MBA Goals (**LEAD**)

Leadership: Miller College MBA Graduates will be able to develop leadership and management skills. They will be able to

- Explain relevant leadership theories
- Apply leadership theories effectively to solutions
- Assess personal leadership strengths and weaknesses
- Relate lessons from leadership theories and personal assessment to personal career

Ethics: Miller College MBA Graduates will recognize and address ethical business issues. They will be able to

- Identify ethical dilemmas
- Identify consequences of ethical dilemmas
- Articulate motivators driving behavior relative to ethical dilemmas
- Articulate a framework for resolving ethical dilemmas

Analytics: Miller College MBA Graduates will be able to interpret and communicate patterns in data, identify and apply the tools and techniques of data analysis, using technical knowledge to analyze problems and propose a solution. Specifically, they will be able to

- Understand the value of data collection and analysis in acquiring knowledge and making decisions in today's business environment
- Identify appropriate statistical techniques and understand their limitations for a given set of conditions in order to answer a particular question.
- Apply quantitative modeling and data analysis techniques to the solution of real-world business problems.
- Effectively present and communicate results using data visualization techniques.

Decision Making: Miller College MBA Graduates will be able to demonstrate effective evidence-based decision making. They will be able to

- Articulate the decision situation and criteria
- Identify and describe key decision alternatives
- Use data to correctly identify the likelihood of outcomes (favorable/unfavorable)
- Use data to assess the impact of outcomes (favorable/unfavorable)
- Make an informed decision and provide support

In this class, you will demonstrate

- **Analytics:** identify and apply the tools and techniques of data analysis to business issues
- **Decision making:** identify and suggest resolutions to business issues

COURSE POLICIES:

Attendance/Participation Policy:

Attendance (online participation for this class) and timeliness play a crucial role in your academic success. Staying self-motivated and disciplined is essential to meeting deadlines. Developing a consistent routine can greatly support your efforts. All assignments are expected to be submitted by their specified due date and time. Please note that late submissions on Canvas will not be graded and will receive a score of zero. This policy is designed to help you stay on track and maximize your learning experience.

Students with Disabilities:

If you need course adaptations or accommodations because of a disability, please contact the instructor of record as soon as possible. Ball State's Disability Services Office coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability Services can be contacted at 765-285-5293 or dsd@bsu.edu.

Freedom of Expression

In this course, we are committed to fostering a learning environment that values intellectual diversity, encourages free expression, and promotes open inquiry. As members of the Ball State Community, we treat each person in the Ball State community with civility, courtesy, compassion, and dignity and respect and learn from differences in people, ideas, and opinions. Please review Ball State University's Statement on Freedom of Expression, the resources on Ball State's Freedom of Expression webpage, and Ball State's Beneficence Pledge.

Communication:

For personal matters, such as inquiries about your grades or private questions for the instructor, please use your BSU Canvas email to communicate. The instructor aims to respond to messages within 24 hours on weekdays. To ensure your email is received and not flagged as spam, include "ISOM 608" in the subject line.

Academic Integrity:

Students are expected to adhere to university guidelines as presented in the Code of Student Rights and Responsibilities as outlined in the student handbook.

Etiquette Statement

- Be mindful to not use language that could be considered strong or offensive.
- Keep all writings and correspondence as professional as possible.
- Keep writing to a point and stay on topic.
- Double-check all writing to make sure that it clearly conveys the exact intended message.

Ball State First Day

This course is part of our course material delivery program, Ball State First Day. The bookstore will provide each student with a convenient package containing all required physical books and any digital materials will be integrated into Canvas for this course.

You should have received an email from the bookstore confirming materials provided for each of your courses and asking you to select how you would like to receive any printed components (in-store pick up or home delivery). If you haven't done so already, please confirm your fulfillment

preference so the bookstore can prepare your materials. Students who do not want to participate in the First Day program may choose to opt out.

To access your digital materials within Canvas:

Delivery Method	Direction
eBook	Select the “Course Materials” link
Courseware – SSO Partner Integration	Select the “Course Materials” link
Courseware – Access Code Reveal	Reveal the access code in the “Course Materials” link and redeem the code at the link provided on that page, or in the publisher’s integration in Canvas
Courseware – Publisher Direct	Select the publisher’s link in your course

Technology Information:

Become familiar with the class interface before the semester begins and seek help if necessary. BSU provides resources to help you. A lack of Canvas knowledge is not an acceptable excuse for late or incomplete work.

Technical Equipment:

In order for you to be successful in this type of course (e.g., online delivery, distance education), you will need the technology listed in the “Technology for Online and Distance Education Students.”

Technical Assistance:

If you have technical questions, you can contact Ball State's Help Desk. In addition, the Help Desk staff has put together many how-to video clips in its Tech Clips section that can guide you through many of the most common questions. The helpdesk can be contacted at: 765-285-1517 or email at helpdesk@bsu.edu.

Student Academic Ethics Policy

Honesty, trust, and personal responsibility are fundamental attributes of the university community. Academic dishonesty and other forms of academic misconduct threaten the foundation of an institution dedicated to the pursuit of knowledge and will not be tolerated. To maintain its credibility and reputation, and to equitably assign evaluations of scholastic and creative

performance, Ball State University is committed to maintaining a climate that upholds and values the highest standards of academic integrity. Visit the VPAA's [academic integrity website](#) (Students tab) for resources on understanding academic integrity, citing sources properly, and avoiding inadvertent academic dishonesty. To learn about BSU's academic integrity expectations and students' rights, please read the University [Student Academic Ethics Policy](#).

Academic integrity violations include giving or receiving an unfair academic advantage (cheating), presenting someone else's ideas or work as your own (plagiarism), and falsifying academic records. Unless otherwise indicated, you must work independently by yourself. Check with me if you are unsure whether something constitutes academic dishonesty. Examples of academic integrity violations include but are not limited to:

- Using resources not authorized by the faculty member (including devices, AI tools, hidden notes, and open books)
- Using commercial study websites to find answers to graded assignments (Chegg, Course Hero, StudyPool, OneClass, etc.).
- Without the instructor's written permission, giving away, buying, or selling graded assignments class notes, exams, study guides, or other course materials to other students or to third-party vendors (Course Hero, Chegg, 24HourAnswers, etc.).
- Working with another person on any assignment other than authorized group projects.
- Sharing or allowing others to access your files, whether done with permission or not.
- Reusing your own work from another semester, course, or section.
- Sharing answers with others during exams (passing notes, texting, whispering, gesturing)
- Discussing exam questions and answers with students who have not taken the exam.
- Soliciting others to complete work for you.

COURSE GRADING & SCALE:

	Points
Quizzes	200
Discussion	200
Essential tools	200
3 Exams	600
TOTAL:	1200

Final Grade	From	To
A	1140	1200
A-	1080	1139
B+	1040	1079
B	1000	1039
B-	960	999
C+	920	959
C	880	919
C-	840	879
D+	800	839
D	760	799
D-	720	759
F	<720	

GRADING POLICIES:

Grades are private and available only on Canvas. Communication with the instructor of a confidential nature is to be conducted via you BSU or Canvas email.

COURSE OUTLINE AND TENTATIVE SCHEDULE:

Class time	Topic	Assignments
01/05-01/11	Chapter 1: Introduction to Business Analytics	Quiz, discussion, tools
01/12-01/18	Chapter 2: Database Analytics	Quiz, discussion, tools
01/19-01/25	Chapter 2: Database Analytics	Quiz, discussion, tools
01/26-02/01	Chapter 3: Data visualization	Quiz, discussion, tools
02/02-02/08	Chapter 3: Data visualization	Quiz, discussion, tools
02/09-02/15	Exam 1	
02/16-02/22	Chapter 9: Forecasting Techniques	Quiz, discussion, tools
02/23-03/01	Chapter 10: Introduction to Data Mining	Quiz, discussion, tools
03/02-03/08	Spring Break	
03/09-03/15	Chapter 11: Spreadsheet Modeling and Analysis	Quiz, discussion, tools
03/16-03/22	Exam 2	
03/23-03/29	Chapter 12: Simulation and Risk Analysis	Quiz, discussion, tools
03/30-04/05	Chapter 13: Linear Optimization	Quiz, discussion, tools
04/06-04/12	Chapter 14: Integer and Nonlinear Optimization	Quiz, discussion, tools
04/13-04/19	Chapter 15: Optimization Analytics	Quiz, discussion, tools
04/20-04/26	Chapter 15: Optimization Analytics	Quiz, discussion, tools
04/27-05/01	Exam 3 (due on Friday)	