MGMT 3255 INTRODUCTION TO BUSINESS ANALYTICS (3 credit hours)

Elmira College

SPRING 2025

Required Text:
James R Evans, ***Business Analytics***(3rd ed), 2021, Global EduTech.

Pre-requisites: ECON 1060 Introduction to Microeconomics, ECON 1080 Introduction to Macroeconomics

Course Description
This course provides an introduction to the field of business analytics, exploring how data-driven decision-making can be used to improve business outcomes. Students will learn to apply statistical, computational, and quantitative techniques to analyze business data, identify trends, and create actionable insights. The course covers fundamental concepts in data analysis, data visualization, predictive analytics, and optimization techniques relevant to various business domains, including marketing, finance, and operations.

Course Objectives and Goals
- Understand the role of business analytics in decision-making processes.
- Analyze business data using basic statistical and computational methods.
- Visualize data effectively to communicate insights.
- Apply predictive modeling techniques to forecast future trends.
- Utilize optimization techniques for decision support in various business functions.

Evaluation of Performance
Your grade will be based upon your performance on exams, assignments, and participation.

4 Assignments	20%
2 Quizzes	20%
Final Project	20%
Midterm Exam	15%
Final Exam	25%
Total	100%

Grades will be assigned as follows:

A	93% and above	B-	80 - 82%	D+	67 - 69%
A-	90 - 92%	C+	77 - 79%	D	63 - 66%
B+	87 - 89%	C	73 - 76%	D-	60 - 62%
B	83 - 86%	C-	70 - 72%	F	59% or below

Withdrawal Policy: Please see Elmira College Bulletin for information on this policy.

Academic Honesty: Please read the section on Academic Honesty in the **Code of Conduct**. Briefly, academic dishonesty includes: cheating, fabrication, facilitating academic dishonesty, and plagiarism. Ask if you have any questions on whether something constitutes as academic dishonesty. All work must be original and new. Past assignments from current or other courses will not be accepted. Academic dishonesty will not be tolerated. It will result in zero on the assignment, and a report will be filed with the school. Continued practice will result in failure of the class. Institutional penalties may also apply with repeated acts of academic honesty.

Student Responsibility:

- It is your responsibility to keep track of assignments and due dates.
- You should ask questions concerning assignments and lectures, if you need any clarifications.
- If you are struggling in class, have concerns, and/or unsure about expectations, please stop by during office hours or make an appointment for another time.

Tentative Schedule of Topics

Topic	Materials	Tasks & Evaluations
Introduction to Business Analytics	Chapter 1	
Database Analytics	Chapter 2	Assignment 1
Data Visualization	Chapter 3	
Descriptive Statistics	Chapter 4	Quiz 1
Probability Distributions and Data Modeling	Chapter 5	
Sampling and Estimation	Chapter 6	Assignment 2
Statistical Inference	Chapter 7	
Trendlines and Regression Analysis	Chapter 8	Midterm Exam
Forecasting Techniques	Chapter 9	
Introduction to Data Mining	Chapter 10	Assignment 3
Spreadsheet Modeling and Analysis	Chapter 11	Quiz 2
Monte Carlo Simulation and Risk Analysis	Chapter 12	
Linear Optimization	Chapter 13	Assignment 4
Integer and Nonlinear Optimization	Chapter 14	
Optimization Analytics	Chapter 15	Final Project
Decision Analysis	Chapter 16	Final Exam