PACE UNIVERSITY
Lubin School of Business
MBA 810 Business Analytics and Statistics
Fall 2024

Instructor

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Office Hours: Tuesdays 4:30pm-6:00pm and Fridays 4:30pm-6:00pm by appointment only.
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Email will be the fastest way to get your questions answered.

Regular Class Meetings and Location

Section (CRN)	Day	Time	Room
72182	Thursdays	6:10pm – 9:00pm	W604

Course Description

The course covers statistical and business analytics tools useful for making effective managerial decisions in a disorganized and uncertain environment in all functional areas of business. Students learn the essential statistical topics of description, probability, inference and regression, and how to apply them using Microsoft Excel. They learn how to choose appropriate statistical methods in realistic business contexts and how to interpret and effectively communicate results. Students also learn how to use data visualization tools, pivot tables and charts, data tables, linear programming models and Monte Carlo simulation.

Course Outcomes and Objectives

Recognize how business analytics can contribute to effective decision making throughout an organization.

- Summarize and visualize quantitative data with appropriate tables and charts.
- Use statistical methods of inference and regression analysis to derive insights from data.
- Use techniques such as Monte Carlo simulation to identify the best decisions in each scenario.
- Use Excel as a tool to manipulate, analyze and build models with data.

Course Materials

Textbook: *Business Analytics: Data Analysis and Decision Makings*, 7th ed., Albright, S.C., & Winston, W.L. *Cengage*, 2020. ISBN 9780357109953 (hardcover), 9780357692677 (e-book). To save money, I recommend renting an e-book or the hardcover. You do not need to get the MindTap version.

Software: We will be using Microsoft Excel for most of the materials on the course. You need to have Microsoft Excel installed on your computer. As a Pace student, you can download the latest MS Office for free at http://adam.pace.edu. If you have a laptop, please bring it to class so that you can follow along with the classroom demonstration.

Performance Evaluations

Assignment	Points
Exam I	35
Exam II	35
Project	30
Total	**100**

Grading Scheme

Letter Grade	Min	Max
A	93	100+
A–	90	92.99
B+	87	89.99
B	80	86.99
B–	77	79.99
C+	74	76.99
C	70	73.99
C–	67	69.99
F	0	67

Exams

There will be two exams, all done on the computer. The exams will NOT be cumulative. No makeup exams are allowed.

Assignments

Solving problems and practicing over and over will help you learn the quantitative modeling and data analysis techniques covered in this course. Thereby, you will be given homework assignments to practice. None of the assignments will be graded, but you will need to do all of them to get enough practice to do well on the exams and to retain what you learned. The assignments solution will be available in Classes a few days after they are posted.

Class project

There will be a business analytics project due at the end of the semester. This project can be done in groups or individually. More information will be provided later in the semester.

Class Attendance

Attendance is not mandatory but is strongly encouraged.

Classes

We will use Classes extensively in this class. You will use it to:

- ✓ check announcements
- ✓ download and submit assignments
- ✓ take quizzes and exams
- ✓ access Excel example files
- ✓ view videos and tutorials
- ✓ email instructor or other students

University's Statement on Student Disability Accommodation

The University's commitment to equal educational opportunities for students with disabilities includes providing reasonable accommodations for the needs of students with disabilities. To request accommodation for a qualifying disability, a student must self-identify and register with the Coordinator of Disability Services for his or her campus. No one, including faculty, is authorized to evaluate the need and arrange accommodation except the Coordinator of Disability Services. Moreover, no one, including faculty, is authorized to contact the Coordinator of Disability Services on behalf of a student. For further information, please see Information for Students with Disabilities on the University's web site.

Tentative Lecture Outline

Week (Date)	Chapters	Topics
09/05	1	Intro to Business analytics
09/12	2	Descriptive Statistics
09/19	3	Relationship between variables
09/26	5	Probability Theory
10/03	5, 7	Probability Theory and Sampling (Asynchronous)
10/10	7	Sampling and Sampling Distributions
10/17	8	Estimation, Exam review
10/24	2,3,5,7,8	Exam I
11/31	9	Hypothesis Testing
11/07	10	Regression Analysis
11/14		No Class
11/21	10, 11	Regression Analysis
12/05	16	Monte Carlo Simulation, Exam review
12/12	9,10,11,16	Exam II