

Dominican University
Brennan School of Business
BUSINESS STATISTICS

ECON 260-03
Spring 2017
MWF 11:30 am – 12:20 pm

Instructor: Joan Dorow
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Location: TBD

Prerequisites: CIS 120; Math 170 (or equivalent); MS Excel

Course Overview

Business Statistics ECON 260 develops ideas and techniques for making decisions based on data. The goal of this course is to understand what statistical thinking is and how to use statistical data to make informed, ethical decisions. Decision making based on sound statistical analysis is used throughout business, economics, government, finance and in virtually every field of science. In our global economy, decision makers need to know how to access, use and, most importantly, interpret the large amounts of data available to them to make good decisions. This course includes classic statistical methods including: tables, graphs, descriptive statistics, data transformations to make data more useful, probabilities, sampling techniques and distributions, interval estimates, significance testing, ANOVA, linear and multiple regression models.

Course Materials

- Textbook: **Essentials of Statistics for Business and Economics 7th Edition**
Author: Anderson, Sweeney, Williams, Camm, Cochran
Publisher: Cengage Learning
ISBN: 978-1-133-62965-8
- Access to a computer with Microsoft Excel and the internet.
- Access to Minitab Statistical Software Package (available on Dominican computers)
- Calculator, bring to class every day
- 1.5 – 2 inch Binder required

(Note: If purchasing a hard copy online, please avoid books marked “International Edition”.

Students who have purchased these books often end up with the wrong version without the access code for online supplements. Be safe and use a reputable vendor.)

Additional Resources:

- Canvas: <http://canvas.dom.edu/>
- IT Contact: For technical assistance 708-524-6888 or supportservices@dom.edu

Grades

The final grade for this course will be determined as follows:

Homework Quizzes & Class Participation	40%
2 Projects	25%
2 Exams, 1 Final	35%

Class Participation

Students must participate in class discussions and/or question and answer sessions. Attendance, active participation in class workshops and discussions, and contribution to a positive learning environment will be part of a student's participation grade.

Homework

The only way to succeed is to do ALL your assignments on time. Students should schedule 6 – 10 hours per week on this course. There are chapter readings, homework assignments, in class assignments and projects that must be completed independently. No substitute assignments will be administered without prior notification and instructor consent.

2 Assurance of Learning (AOL) Projects

Two projects will be assigned using MS Excel and/or Minitab. The projects will include:

- Interpret regression results using hypothesis testing
- Use Excel or Minitab statistical software to perform data analysis

Students will submit their final Excel spreadsheet showing all calculations and submit an MS Word paper analyzing the results for each project. No substitute projects will be administered without prior notification and instructor consent.

3 Exams

There will be 2 Exams and a Final Exam in class. Students are expected to attend all regularly scheduled exams and to complete them by the designated due date. No substitute exams will be administered without prior notification and instructor consent.

Course Objectives

- Develop graphical and numerical depictions (histograms, bar charts, etc.) of business data
- Calculate and interpret measures of central tendency and standard deviation (dispersion)
- Develop and analyze probability distributions (ex. Normal, Binomial, etc.)
- Apply confidence intervals and hypothesis tests to make decisions about population characteristics based on sampling
- Perform regression analysis using statistical software and interpret regression results
- Accurately and creatively present quantitative information
- Confidently use Microsoft EXCEL to manage data sets

Thoughts for Success in Class: Statistics is a rigorous course!

I want every student to be successful in this class. Here are some suggestions:

- **Attend every class meeting and arrive on time.**
- **Read the assigned chapter material BEFORE the lecture.** This will vastly improve your understanding of the work we do in class. It will make homework EASIER!
- **Commit 6 to 10 hours per week in addition to class time.** Statistics is a rigorous course and should be given high priority. A substantial amount of coursework will be completed independently outside of class. In-class time is only one part of the full course experience. **Practice TIME MANAGEMENT.**
- **Please ask questions!** If you have a question, others probably have the same one, too.
- **Do not fall behind. Submit assignments on time.**
- Take all coursework with sincerity. I expect you to use critical thinking and try your best every time.

Extraordinary Circumstances - Students encountering genuine emergencies or other extraordinary circumstances should contact me as soon as circumstances allow. Documentation will be required. Barring a truly extraordinary situation, students are expected to follow the course schedule and complete all exams, assignments and other course requirements on time.

Communication with Email

- Email is the best way to contact me. Email: jdorow@dom.edu
- Students must have a working email address that is available to send and to receive class information.
- **Check email and Canvas regularly.** This is the way I will send important information about due dates, grades, assignments, class location, etc.

Calculators – are required. Students will be expected to solve problems using Algebra and statistical formulas. You will be required to show the long form calculations to problems on exams, in spreadsheets, etc. to qualify for credit. Correct answers that are not accompanied by calculations that support the given answer will receive zero points.

MS Excel and Minitab - Students will be assigned Excel and Minitab computer assignments throughout the class. Minitab Statistical Software is available on Dominican computers.

Academic Integrity

Plagiarism is the use of another person's work or ideas without giving credit to the originator. All your work must be your own unless collaboration has been authorized. If collaboration is authorized, you must acknowledge the collaboration in writing. All University policies are in effect as described in the Academic Dishonesty/Misconduct section of the University catalog.

Week Dates	Topic	Online HW Quiz Due	Projects
1 1/11, 13	Data & Statistics Ch. 1	1/20	
2 NO CLASS 1/16 1/18, 20	MLK Day Ch1/Tabular & Graphical Data Ch. 2	1/27	
3 1/23, 25 1/27	Ch 2 (continued)/Numerical Measures Ch. 3	2/3	Project 1 - assigned
4 1/30 2/1, 3	Ch. 3 (continued)/ Probability Ch 4		
5 2/6, 8 2/10	Probability Ch. 4 Project 1 – In class work	2/13	
6 2/13, 15 2/17	Review for Exam 1 Review/Discrete Probability Distributions Ch. 5	In Class assignment	
7 2/20 2/22, 24	EXAM 1: Ch 1 - 4 Continuous Probability Ch 6	3/3	
8 2/27, 28 3/3	Sampling Ch. 7	3/17	Project 1 – DUE 2/27
9 3/13, 15, 17	Interval Estimation Ch. 8	3/24	
10 3/20, 22 3/24	Hypothesis Test Ch. 9	3/31	Project 2 – assigned
11 3/27, 29, 31	Review for Exam 2		
12 4/3 4/5, 7	EXAM 2 Linear Regression Ch. 12, ANOVA Ch. 10	4/17	
13 4/10 4/12 NO CLASS 4/14	Simple Linear Regression Ch. 12 Multiple Regression Ch. 13		
14 4/17, 19, 21	Multiple Regression Ch. 13	4/26	
15 4/24, 26, 28	Review for Final Exam		Project 2 - DUE 4/28
16 Exam Week	FINAL EXAM	5/3	

Course Outline – I intend to follow the detailed course schedule however, the schedule may change as circumstances arise. The topic outline will help you understand the pace of the class.