

**EC 220: Business Statistics
Loyola University in Maryland
Sellinger School of Business & Management
Spring 2018 Syllabus**

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Office Hours: Monday, Wednesday and Friday 11:00 am – 11:50 pm, Also available by appointment.

Course Outline: The outline for the course and the corresponding readings along with various practice problems are available on the course outline page. The link can be found in MOODLE and is also given below. As with all forecasting, the actual schedule may deviate from the best of plans. *Readings should be completed prior to the lecture and practice problems after the lecture.*

<http://dcmccornac.com/AStatSpring2018/StatisticsOutline.htm>

Text: *Essentials of Modern Business Statistics with Microsoft Excel*, Seventh edition, by David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran. Cengage Publishing, 2018 (The sixth edition is an acceptable substitute). The book provides Excel based problems, examples and Excel 2016 commands.

Course Description and Objective: The field of statistics deals with quantifying uncertainty. In a world flooded with (imperfect) information, one's value added increasingly comes from one's ability to efficiently sift through the available information, process it and summarize it in a meaningful manner. The tools learnt in this course can be used to more effectively convey information in organizational workshops, in marketing presentations, and in summarizing account information for managers or clients. This course can also be viewed as a foundational step for more advanced statistical/economic/financial analyses that can be used to build optimal investment portfolios, either for your own retirement fund or in the professional world as a financial analyst.

This course begins by introducing the concept of descriptive statistics including frequency distributions and measures of location and dispersion. The basic rules of probability are discussed before moving on to statistical inference that deals with the estimation of unknown parameters and hypothesis testing. Linear regression and correlation analysis are developed and applied using the standard statistical package, MS Excel.

Regarding computing, MS Excel and a calculator will be indispensable as the course develops. MS Excel is a comprehensive spreadsheet program appropriate for basic statistical analysis in this course.

I. COURSE LEARNING GOALS

As a business student, your learning objectives, at the minimum, are the following:

- 1. Demonstrate competency in Excel, particularly in the tools in Data Analysis.**
- 2. Demonstrate competency in the basics of statistics including sampling, probability, and descriptive statistics, estimation and hypothesis testing.**
- 3. Be able to successfully apply these techniques to multiple variable situations found in business disciplines.**
- 4. Demonstrate when it is appropriate to apply a specific statistical technique.**
- 5. Demonstrate the ability to define a business problem, develop hypotheses and analyze relevant data with the appropriate statistical methods.**

II. COURSE REQUIREMENTS

For the purpose of evaluating your progress towards the goals and to provide feedback to the teacher, a variety of techniques will be used. *Attendance, classroom participation, and timely completion of all assignments even if not graded – are all requirements for completing this course.*

Practice problems are available on the course outline and practice quizzes are available in Moodle. The practice problems will not be collected or graded and the answers will be automatically corrected. It is unlikely that you will do well on the graded quizzes or exams if you do not complete the practice problems and quizzes in a timely manner. The course is cumulative with the lecture material building upon the content of the prior lectures. The suggested problems in the outline are the minimum number that should be worked for success in mastering the course content.

Attendance is highly recommended.

III. GRADING SCALE

Four (4) short quizzes (one of these will be online during online week) quizzes) with the lowest quiz grade dropped) and four (4) exams will be given throughout the semester. Each quiz counts for five (5) percent of the course grade and each exam counts for fifteen (15) percent of the course grade. In addition, there will be a cumulative final which will count for twenty-five (25) percent of the final grade. Simple calculators will be provided for all exams and the exams will contain questions of various formats. The exams will be closed book and closed notes. You are allowed a 3" x 5" note card (yes, you may write on both sides) for exams, including the final.

The quiz and exam questions will test your ability to solve problems using the concepts and tools gained in class. They will NOT always be worded like the problems in the book because statistical problems you will encounter in other courses in Loyola and later at your work place will obviously not be written by the authors of the textbook.

Dates of method of evaluation will be posted on the course outline website. Make-up exams will only be allowed for serious medical or personal problems.

Method of Evaluation	Points Possible
Quizzes (3)	15
Exam 1	15
Exam 2	15
Exam 3	15
Exam 4	15
Final Exam (Cumulative)	25
TOTAL	100

Missed Exams: Students are expected to take exams as scheduled. Make-up exams will only be permitted under extenuating circumstances. Students are expected to notify the instructor in advance of a potential conflict. The instructor will be the judge of whether an excuse is satisfactory.

IV. STUDENT ATHLETES AND STUDENTS WITH LEARNING DISABILITIES

Student Athletes:

If you are a student athlete, please provide me with your travel and game schedule indicating when you will need to miss class to participate in athletic events. While travel for athletics is an excused absence, you will need to make up any missed work.

Students with Disabilities: To request academic accommodations due to a disability, please contact Disability Support Services (DSS), Newman Towers West 107, at DSS@loyola.edu or call (410) 617-2750/2062. If you already registered with DSS and requested an accommodations letter (and DSS has sent the letter to your professors via email), please schedule a brief meeting to discuss the accommodations you might need in this class.

V. HONOR CODE

All students of Loyola College are expected to understand the meaning of the [Loyola College Honor Code](#). Ignorance of the Code is not a valid reason for committing an act of academic dishonesty. The following constitute violations of the Code and are defined in the [Community Standards Handbook](#): cheating, stealing, lying, forgery, plagiarism, and the failure to report a violation.