

Economics 180 – Quantitative Methods for Economics & Business

Administrative Details:

Instructor: Amanda J Felkey (email: felkey@lakeforest.edu)

Office: 419 Young Hall

Office hours: M, W noon-2pm and by appointment.

Class time: M, W, F 10-10:50am (Section 1) 11-11:50am (Section 2)

Class Location: 423 Young Hall

Teaching Assistant: Mariyana Zapryanova

TA Office hours: T 2:30-4pm in 207 Young Hall

***This syllabus and additional course materials will be posted on moodle.*

Course Description: This course is an introduction to statistics as an aid for performing economic analysis and in business decision-making. In this course students will learn methods for summarizing quantitative information, analyzing probability distributions, performing point and interval estimation, hypothesis testing, and linear correlation and regression.

Text: ESSENTIALS OF STATISTICS FOR BUSINESS AND ECONOMICS, 4th Edition, by Anderson, Sweeney and Williams, available in the college bookstore. [Note: If you buy a used copy of the text, make sure you get the data CD that accompanies it.] Students are expected to bring their textbooks to class with them, as we will be working on problems from the text during class time. In addition to the text, students are also expected to bring a *simple* calculator with them to every class.

Grades: Grades for the course will be determined by your performance on quizzes, exams and class participation. There will be four exams during the semester; the dates are given below. Each exam is worth 20% of your final grade. Your grades on the quizzes will comprise 10% of your final grade. The remaining 10% will be based on class participation (including attendance and completion of non-graded homework assignments) and is awarded at my discretion. [Note: If you are absent you are responsible for obtaining the lecture notes, readings and homework assignments for that day.]

Exams: Exams will consist of short explanation answers and problems. Your presence is required on the exam dates listed below, otherwise you will receive a zero for the exam. The exam dates are:

Exam 1: Wednesday, 20.September

Exam 2: Friday, 20.October

Exam 3: Wednesday, 15.November

Final Exam: Section 1 Saturday, 9.December, 8:30-11:30am

Section 2 Friday, 8.December, 8:30-11:30am

Because we will be building a set of skills throughout the semester, solving problems in later topics may require you to use tools learned earlier in the semester. Therefore, each exam will be comprehensive, but focus on the material presented after the previous exam. The date of the final is set by the college and you must be present to take the exam at that time, no exceptions. Be prepared to do your own work on exams. Any students caught cheating may be asked to leave and will receive a zero on the exam.

Quizzes: There will be seven quizzes given during the semester. The dates for these quizzes are:

- Quiz 1: Wednesday, 6.September
- Quiz 2: Wednesday, 13.September
- Quiz 3: Wednesday, 4.October
- Quiz 4: Wednesday, 11. October
- Quiz 5: Wednesday, 1.November
- Quiz 6: Wednesday, 8. November
- Quiz 7: Wednesday, 29. November

Your quiz grade (10% of your final grade) will be the average of your five highest scores. This means you can be absent for two of the quizzes and it will not adversely effect your grade, you can choose not to take quizzes 6 & 7 if you are satisfied with your quiz grade from quizzes 1-5 or you can take all seven and drop the two lowest scores. There are NO make-ups for quizzes—if you are absent on the day of a quiz you will receive a zero, no exceptions.

Homework: Since practicing problems is essential to mastering probability and statistics, daily homework assignments will be made throughout the semester. Some problems will need to be completed in Excel, and students are expected to put in the necessary time to learn this computer program. Though the homework problems are not graded, completing them will effect how well you can participate in and understand the lectures. Therefore, students are expected to complete all assigned homework problems by the beginning of the class period immediately following the class in which they were assigned. Homework will be periodically collected at the beginning of class and reviewed. This review will factor into your class participation grade. Absolutely NO homework will be accepted beyond that which I collect at the beginning of class.

It is your responsibility to be in class and know when all tests and quizzes will be held. Not knowing a when quiz or exam is scheduled or what homework problems have been assigned is not an acceptable excuse for your incompletion and you will receive a zero.

Topics to be Covered:

Chapter	Topic
1	Data and Statistics
2	Descriptive Statistics: Tabular and Graphical Methods
3	Descriptive Statistics: Numerical Methods
4	Introduction to Probability
5	Discrete Probability Distributions
6	Continuous Probability Distributions
7	Sampling and Sampling Distributions
8	Interval Estimation
9	Hypothesis Testing
10	Comparisons Involving Means
11	Population Proportions
12	Simple Linear Regression
13	Multiple Regression