MANA 6001  
Statistics Foundations  
Spring 2016

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Office Hours:  
Tuesday: noonish-12:45, 5:00–8:00 (5:00-7:00 on 3/1, canceled 3/15)  
Thursday: noonish-12:45, 8:30-9:30 (late hour may be in room 288)  
Also by appointment or by chance

RESOURCES: 
MANA 6001 Class Notes for Spring 2016

Please see the course d2l page for the text/Aplia purchase options.

d2l: The class notes, the answers to some exercises, a set of Excel directions, helpful external links regarding some topics, and a set of TI-83 directions are posted on the class d2l page. Test keys and take-home quiz keys will be posted at the appropriate times during the semester.

ASSESSMENT STATEMENT and COURSE DESCRIPTION: 
Students in our MBA programs are assessed on their competency to communicate effectively, reason ethically and apply critical thinking, as well as their capacity to comprehend the global strategic issues of firms and perform fundamental activities of business managers.

This is a foundations course in statistics. The goal of the course is to understand the basic statistical tools needed to make decisions in business situations. Most of the topics and techniques presented in class will be expanded upon in your future courses in the MBA program. We will first cover descriptive statistics including their uses in an effective business presentation. We will then discuss the use of probability and probability distributions in business decisions. A discussion of sampling and sampling distributions will lead to the development of statistical estimation and statistical inference including hypothesis testing and confidence intervals for means and proportions. We will finish the semester discussing the use of the chi-square distribution in testing goodness-of-fit and contingency tables, the analysis of variance procedure, and correlation and (simple and multiple) regression. By the end of the semester, you should be comfortable formulating a business problem, understanding how to collect the appropriate data, analyzing the data, and explaining your findings in a well-written manner.
GRADES:
Your grade will be based on
Test One March 31
Test Two May 12
Top 5 of 7 quizzes

Scale:
A  93-100
AB  88-92
B  83-87
BC  78-82
C  73-77
F   -72   there is no curve

Final grade: You will have three grades (two test grades and the quiz grade). The lowest of these three grades will count as 20% of your final grade. The other two grades will each count as 40% of your grade.

Quizzes: Your quiz grade will be the sum of top five of your seven quiz grades. Three quizzes will (at least partially) be done using Excel. You must work alone on all quizzes and tests except quiz four. In-class quizzes will be given at the end of class and are closed book. The quiz seven grade will come from your Aplia homework. The due dates are on the Aplia page as well as below. Your percent grade on the Aplia work will be multiplied by 20 (any fraction will be rounded up) and will count as your quiz seven grade. Example: You score 410 out of 436 Aplia points. Your quiz seven grade is 19 (\(\frac{410}{436} \times 20 = 18.8\)). Note that there may not be 436 Aplia points.

Exams: Tests are closed book. The front of each exam will contain all of the equations and formulas that a student keeping up with the homework would need (these equations are given at the back of the class notes). I will keep your second exam until May 1, 2017. You may view your test (and the test two key) in my office during my office hours until then. Please use the restroom before starting a test or quiz. Once you start a test or quiz, you may not leave the room until you have completed the test or quiz. If you have a medical condition that makes this impossible, please let me know at least one week before the test.

Calculator: The calculator that you use on the tests and in-class quizzes must be a pure calculator. You may not use a communications device. For those using a TI-83, there is a set of directions under Content on the class d2l page.
EXPECTATIONS:
I will teach the class assuming that you have never taken a statistics course. I must assume that you are comfortable with basic algebra.
If you must miss a class, let me know one or two weeks ahead of time. You are responsible for getting class notes from your classmates. If you miss one or more classes or quizzes and your course grade is between grades (ex. 92.9 is between A and AB), your grade will be rounded down.
I suggest that you do the homework problems assigned at the end of each chapter. Homework will not be collected.
I suggest that you print the entire set of class notes. The class notes give you cues for when to play a discussion (ideas and definitions) or to play the solution to the exercises. The best way to go through a chapter/section is to play the discussion, try the exercises in the notes, then play the solution to the exercises for the chapter/section (to make sure that I got them right). Next try the text homework for the chapter/section. If you get stuck in the homework, read through the text for the section, listen to the discussions again, and try the homework again. If there is still a homework example that does not make sense, make that part of our Thursday class.

ACADEMIC HONESTY:
Students, faculty, and staff at Marquette University developed a Statement on Academic Integrity that recognizes the importance of integrity, both personal and academic, and includes an Honor Pledge and Honor Code applicable to all.

The Honor Pledge
I recognize the importance of personal integrity in all aspects of life and work. I commit myself to truthfulness, honor and responsibility, by which I earn the respect of others. I support the development of good character and commit myself to uphold the highest standards of academic integrity as an important aspect of personal integrity. My commitment obliges me to conduct myself according to the Marquette University Honor Code.

Student Obligations Under the Honor Code
1. To fully observe the rules governing exams and assignments regarding resource material, electronic aids, copying, collaborating with others, or engaging in any other behavior that subverts the purpose of the exam or assignment and the directions of the instructor.
2. To turn in work done specifically for the paper or assignment, and not to borrow work either from other students, or from assignments for other courses.
3. To give full and proper credit to sources and references, and to acknowledge the contributions and ideas of others relevant to academic work.
4. To report circumstances that may compromise academic honesty, such as inattentive proctoring or premature posting of answers.
5. To complete individual assignments individually, and neither to accept nor give unauthorized help.
6. To accurately represent their academic achievements, which may include their grade point average, degree, honors, etc., in transcripts, in interviews, in professional organizations, on resumes and in the workplace.
7. To report any observed breaches of this honor code and academic honesty.
ACCOMMODATIONS:
Please inform me during the first week of class if you have any conditions that may limit or affect your ability to participate in this course so that we can make necessary arrangements. You may also contact the Office of Student Educational Services (OSEs), in AMU 317 (8-3270) for more information (see also: http://www.marquette.edu/oses/).

EMERGENCY PLAN:
Every Marquette University campus building has emergency shelter and evacuation plans. Please familiarize yourself with the plans of each building in which you take classes or attend meetings. Make sure to note the routes to the lowest level of the buildings for shelter during inclement weather, as well as exits from the buildings in the event of fire or other emergency.

LECTURE SCHEDULE:

January
21  5:30-6:30  Course introduction
      questions from:
      Chapter 1    Data and Statistics
      Chapter 2    Descriptive Statistics: Tabular and Graphical Presentation
28  5:30-6:30  questions from:
      Chapter 3    Descriptive Statistics: Numerical Measures
29  Aplia quizzes for chapters 1,2, and 3 due at 9:00

February
  4  5:30-6:30  questions from:
      Chapter 4    Introduction to Probability
      **quiz one due**
  5  Aplia quiz for chapter 4 due at 9:00
11  5:30-6:30  questions from:
      Chapter 5    Discrete Probability Distributions
12  Aplia quiz for chapter 5 due at 9:00
25  6:30-8:30  questions from:
      Chapter 6    Continuous Probability Distributions
      **quiz two**
26  Aplia quiz for chapter 6 due at 9:00

March
  3  6:30-8:30  questions from:
      Chapter 7    Sampling and Sampling Distributions
      **quiz three**
  4  Aplia quiz for chapter 7 due at 9:00
10  6:30-7:00, 7:30-8:00  questions from:
      Chapter 8    Interval Estimation
11  Aplia quiz for chapter 8 due at 9:00
31  5:30-8:30  **TEST ONE (Chapters 1-8)**
April
7  5:30-6:30  questions from:
   Chapter 9  Hypothesis Tests
8  Aplia quiz for chapter 9 due at 9:00
14 5:30-6:30  questions from:
    Chapter 10  Experimental Design and Analysis of Variance
      quiz four due
15  Aplia quiz for chapter 10 due at 9:00
   Last day to withdraw from a class
21  5:30-6:30  questions from:
    Chapter 11  Tests of Goodness of Fit & Independence
      quiz five due
22  Aplia quiz for chapter 11 due at 9:00
28  5:30-6:30  questions from:
    Chapter 12  Simple Linear Regression
29  Aplia quiz for chapter 12 due at 9:00

May
5  5:30-6:30  questions from:
    Chapter 13  Multiple Regression
6  Aplia quiz for chapter 13 due at 9:00
8  quiz six due
12  5:30-8:30  TEST TWO (Chapters 9-13)