ECON 231.01
Applied Statistics I
MWF 10:00am-10:50am McCom 235

Dr. Ron Baker   Office Hours: Mon 11am-12pm
325 McComsey Hall   Tue 9am-10am
717-872-3560   Wed 11am-1pm
ronald.baker@millersville.edu   Thur 9am-10am
                                                                          or by appointment

Text: Keller, *Statistics for Management and Economics, Abbrev. Edition,* 9th ed.

Note: This textbook is OPTIONAL, not required.

Internet Resources (Desire2Learn): D2L can be accessed through the MU homepage. Your username is your MU email address (before @) and your password is your MU email password.
(note: if having trouble logging into D2L, your password may be the default password of your birthday) Go here for more info about D2L: https://wiki.millersville.edu/display/d2ldocs/Welcome+to+the+D2L+Resources+Wiki.

Course Objective: Statistics is a branch of mathematics concerned with the collection, organization, and interpretation of numerical data, especially the analysis of population characteristics based on sample inference using probability theory. Upon completion of this course, students should be able to 1) describe numerical data accurately and concisely through the use of summary statistics, tables and graphs; 2) learn basic methods of sampling and data collection; and 3) draw statistical inferences using the results obtained by the application of basic statistical methods through the use of *Microsoft Excel*.

Grading System: There will be 1000 possible points allocated to course assignments and exams. The breakdown of points is as follows.
Homework (best 5 of 6 assignments) –250 points total (50 points for each assignment)
Exam 1 (Fri 10/4)—250 points
Exam 2 (Wed 10/30)—250 points
Final (Thur 12/12 8am)—250 points (note: Final exam will be cumulative)

Formula sheets will be provided by me for the exam. You will see the formula sheets when I hand out the exam review.

Regular class attendance and participation is expected throughout the semester.

Grading Distribution:
925 points-1000 points A   795 points-824 points B-   665 points-694 points D+
895 points-924 points   A-   765 points-794 points C+   625 points-664 points D
865 points-894 points   B+   725 points-764 points C   595 points-624 points D-
825 points-864 points   B   695 points-724 points C-   594 points or less   F

Class Policies
• Homework assignments will be due at the beginning of class on the assigned due date. The beginning of class is defined as when I begin the lesson. Any assignments submitted after this point will be considered late. Late homework assignments will result in an 8 point deduction from your score for each day it is late (e.g. from the time I begin class to the time of the beginning of class the next day is one day late). I will post the homework answers the day after all classes turn in their assignments by 10am. Once the answers are posted, I will not accept any late assignments. ALL HOMEWORK ASSIGNMENTS THAT ARE MORE THAN ONE PAGE MUST BE STAPLED (paper clips do not count). FAILURE TO STAPLE YOUR ASSIGNMENT WILL RESULT IN A 4 POINT DEDUCTION IN YOUR SCORE. Finally, if you know you are going to be late to class, email me your homework answers. If I receive the answers before the beginning of class then you will receive full credit.

• If you have a <u>documented, verifiable</u> excuse (varsity sports game, serious illness, death in the family) that will cause you to miss an exam, let me know as soon as possible. An <u>unexcused</u> absence will result in a grade of zero. **In the case of an excused missed exam, your score on the final exam will be used to replace your missed exam score.**

• I follow the official university policy of academic integrity. A grade of zero will be given to any assignment or exam on which the student is guilty of cheating, the incident will be reported, and further actions ranging from a written reprimand to expulsion will be taken.

• If you have any special needs documented by the Office of Learning Services, it is your responsibility to contact me by Wed Sept 4 to ensure those needs are met.

• I will use the news area on D2L to send messages to the class. Please check these often.

• *Microsoft Excel 2010* will be used for all calculations during exams. No use of graphing calculators, cell phones, and the Windows calculator are permitted. Further, the lab will not be equipped with any of the add-ins supplied with the text CD-ROM. It is to your benefit to not rely on these programs when completing homework because they are not an option during exams.

• Once I begin class, all computer monitors must be turned off and remain off until I permit them to be turned on.

• I will not tolerate any classroom disruption. Disruption includes but is not limited to: arriving late, packing up and leaving early, reading the newspaper, any cell phone use (including text messaging), and checking email/web browsing/instant messaging. I reserve the right to dismiss you from class for repeated disruptions. Treat your classmates and me with respect and respect will be given to you.

• If you need extra review for the material, go to the following sites:

www.khanacademy.org

The Khan academy has youtube videos explaining just about every topic covered in this course. Scroll down to the statistics area of the site to check it out.

www.udacity.com

The udacity website has an entire online course for Statistics, labeled Intro to Statistics (ST101). The course contains numerous short videos that explain many of the concepts we will learn about in our class. You can select "preview" and view any of the videos you like

Semester Schedule
Week 1: Types of Data/Frequency Distributions

Week 2: Frequency Distributions/Measures of Center

Week 3: Measures of Center/Measures of Variation
Hw 1 due Fri 9/13

Week 4: Probability

Week 5: Binomial Distribution
Hw 2 due Fri 9/27

Week 6: Normal Distribution and Exam 1
Exam 1 Fri 10/4

Week 7: Normal Distribution/Sampling Distribution

Week 8: Sampling Distribution/Confidence Intervals using Z
Hw 3 due Fri 10/18

Week 9: Confidence Intervals using Z/Confidence Intervals using T
Hw 4 due Fri 10/25

Week 10: Confidence Intervals using T and Exam 2
Exam 2: Wed 10/30
(note: Last day for automatic withdrawal is Fri 11/1)

Week 11: Hypothesis Testing

Week 12: Hypothesis Testing
Hw 5 due Fri 11/15

Week 13: Hypothesis Testing/Correlation/Regression

Week 14: Correlation/Regression

Week 15: Correlation/Regression
Hw 6 due Fri 12/6

Week 16: Final Exam Thur 12/12 8am-10am