## Economics 290

Fall 2008
McKinney
Class: $\quad$ TTh 8:00-9:15 in Barret 035
TTh 9:30-10:45 in Barret 035
All classes will be close to the room's capacity. Do not come to an earlier or later session without my permission. Even if you get my permission, you will need to stand in the back of the room. Once class starts, you can take an empty seat if one is available.

Office: Buckman 321
Phone: 843-3566
Email: mckinneyn@rhodes.edu
Office Hours: Tuesday 3:00-4:00 pm
Wednesday 9:00-10:30 am
Thursday 3:00-4:00 pm
Appointments are also welcome. Additional hours will be announced around exam times. Feel free to stop by anytime my door is open.

Peer Tutor: Tyler Ponder has agreed to be the peer tutor for this class. He will hold 3 office hours per week.

Monday 9:00-10:30
Wednesday 8:00-10:30
Attendance: I will not have time to take roll on a regular basis, but don't use this as an excuse to skip class. Keep in mind that grades are highly correlated with attendance. According to my analysis of previous semesters, holding all other factors constant, each day of class missed costs the typical student about 2.1 percentage points.

We will cover a lot of material in this class every day. I encourage you to take notes in class, then review your notes and re-work sample problems after class. If you wait until the night before an exam to study, you may be able to memorize the material, but you will have trouble applying it. You will also find that if you don't take the time to truly learn the material in this class, you will struggle in many other upper-level Business and Economics classes.

There are no "bonus points" for simply showing up to class and not paying attention. Do not come to class if you plan to sleep, work on other assignments, or play on the computer.

Required Text: Anderson, Sweeney \& Williams. Statistics for Business and Economics. $10^{\text {th }}$ ed. The book includes a data CD, if your book doesn't have one take it back to the book store and they should give you another. Some of the homework problems will use that data. I'm not sure what all the copyright laws with that CD are, but I don't believe that I can post the data on the network.

Optional Text: Microsoft corporation, Microsoft Office Excel 2003 Expert Skills.

Exams: The following three exams make up $60 \%$ of your final grade. The weight of each exam is given in parenthesis.

Exam 1 (17.5\%): $\quad$ September $30^{\text {th }}$
Exam 2 (17.5\%): $\quad$ November $4^{\text {th }}$
Final Exam (25\%): December $12^{\text {th }}$ at $8: 30 \mathrm{pm}$ (Section 1)
December $12^{\text {th }}$ at $1: 00 \mathrm{pm}$ (Section 2)

As long as you let me know at least 1 week in advance you can take any of my tests early. If you have to be away for a school approved function, you must take the test early. I do not give late tests or make-up exams. No one will be allowed to take a test after the scheduled time. If something happens and you miss a test I may allow you to take an extended final exam that will cover the material you missed. I will look at medical documentation if you are sick and I will discuss other issues with the Dean of Students' Office, but I will make the final decision on whether or not you take the extended final or receive a zero.

I don't want time to be a factor. You will have $11 / 2$ hours for the first two tests. I will make an official schedule later, but most of you can either start 15 minuets early or finish 15 minutes late without interfering with another class. If you have other classes both before and after this class we will find an alternate time that works for you.

These are pen and paper exams. You will not use the computer. All you need to bring is a few pencils. I will provide you with paper and a calculator. I will also provide you with a formula sheet, but most of the formulas in statistics are intuitive and I will expect you to know them. The formula sheet will include integral* tables and a few of the more complex formulas.

You must show your work. I will not give any partial credit if you just turn in answers. If I can't tell how an answer was derived, I will mark it wrong.

Most of the material in this class builds on itself so the exams are all
"cumulative." The honor code applies to the exams as well as all other assignments in this class.

* You should have learned all the mathematics you need for this course in high school. You are expected to do considerable amounts of algebra and basic mathematics on all exams and you need to keep in mind that you will not have an advanced graphing calculator at your disposal. I will not ask you to do any calculus in this class, but some of the most important concepts in this class are derived from integral calculus. If you do not know what integral calculus is, you may consider adding Math 115/122 to your schedule if you still can (you need it for all of the ECBA majors).

Homework: I will assign 6-8 homework problems each week. Sometimes I will collect it and sometimes I will not. When I collect the homework, I will only grade a subset of the problems. Most of the time the selection will be random, but occasionally, I will intentionally pick certain problems to grade. Either way, you will not know which problems I will grade until you turn them in to me; so you still have every incentive to work every problem. Homework will usually be due on Thursdays. I will put answer keys on the network after I collect the assignments.

Feel free to work with other people, but don't simply copy their work. Copying someone else's work is a violation of the honor code. Copying an old answer key is also a violation of the honor code.

You must show your work. I will not give any partial credit if you just turn in answers.

All homework must look professional. Some assignments can be done in Excel, but you need to make sure it prints in a neat and orderly manner. There are a number of options under "Print Preview - Setup" that you can use to customize the way your document prints. Before you print out an assignment, spend 5 minutes looking at some of the options below and decide which ones will make your assignment look acceptable.

- Change the orientation from portrait to landscape.
- Fit to $x$ pages wide by $y$ pages tall (this one works great, just don't let it make the font too small).
- Add page numbers in the footer.
- Shrink the margins down to $1 / 4$ inch.
- Print the gridlines and the row/column headers.
- Make sure the column width is wide enough so that none of the text is hidden.
- You may want to paste Excel tables into a Word document before you print.

If you have trouble with a problem in Excel, you can hit "CTRL" and " $\sim$ "to
print out your formulas. I can usually tell what you did wrong if I can see your formulas.

Homework is due at the beginning of class. If you can't make class, you need to either turn it in before I leave my office (around 7:30am) or you need to have someone in your section hand it in for you. Late homework will not be accepted. Don't expect me to grade your homework if I find it under my door after I return from class. Each homework (and quiz) carries equal weight. Quizzes and homework make up $25 \%$ of your final grade.

The honor code applies to your homework as well as all other assignments in this class.

Quizzes: There will likely be quizzes on any day in which a homework assignment is due. There are no dropped quizzes and there are no make-up quizzes. If you miss a quiz for any reason simply write "I MISSED CLASS" on the top your homework and I will replace that quiz score with your homework score (make sure you have someone turn in this homework for you before class).
You can do this a maximum of three times; after the third missed quiz, you will receive zero's on all subsequent missed quizzes. Each quiz (and homework assignment) carries equal weight. Quizzes and homework make up $25 \%$ of your final grade.

I will occasionally give bonus pop quizzes on days when there is no homework due. The bonus quizzes can only help your grade. There will not be any make up quizzes.

The honor code applies to quizzes as well as all other assignments in this class.

Take Home Test (15\%):

Due November 21 ${ }^{\text {st }}$. This take home test is worth $15 \%$ of your final grade. I will hand it out at least one week before it is due.

The take home exam is an extensive computer assignment. I will give you approximately 1 week to complete the assignment. It will take you a number of hours to complete, so plan accordingly.

You can use any non-human aid such as your book, notes, on-line help, etc. You may not discuss the test with anyone except me. You will turn this assignment in electronically via the inbox in my faculty folder.

The honor code applies to this test as well as all other assignments in this class.

## Grading

Scale:
I will round your grade to the nearest percentage and assign grades according to the scale below:

|  | A $93 \%$ and above | A- $90 \%-92 \%$ |
| :--- | :--- | :--- |
| B+ $87 \%$ to $89 \%$ | B $83 \%$ to $86 \%$ | B- $80 \%$ to $82 \%$ |
| C+ 77\% to $79 \%$ | C $73 \%$ to $76 \%$ | C- $70 \%$ to $72 \%$ |
| D+67\% to $69 \%$ | D $63 \%$ to $66 \%$ | D- $60 \%$ to $62 \%$ |
| F below $60 \%$ |  |  |

I do not give any extra credit assignments.
Once again, the distribution of points is :

| Quizzes and Homework: | $\mathbf{2 5 \%}$ |
| :--- | :--- |
| Take-Home Exam: | $\mathbf{1 5 \%}$ |
| Exam 1: | $\mathbf{1 7 . 5 \%}$ |
| Exam 2: | $\mathbf{1 7 . 5 \%}$ |
| Final Exam: | $\mathbf{2 5 \%}$ |

Software: The college just switched to Microsoft Excel 2007, so that is the version we will use in this class. If you have an older version of excel on your personal computer, you will probably be OK, but make some test files and open them in the lab just to make sure. I personaly like the interface on the older versions of Excel. If you still use Excel 2003 and you have any questions about the differences I'll gladly answer them for you (bring your laptop to my office if you can).

## Course

Outline:

Introduction, Definitions, Basic Excel Applications, Tables, Charts, and Graphs (Chapters 1-2)

Descriptive Statistics (Chapter 3)
Probability (Chapter 4)
Discrete Distributions (Chapter 5)
Continuous Distributions (Chapter 6)

## EXAM 1

Sampling and The Central Limit Theorem (Chapter 7)
Estimation (Chapter 8)
Means Hypothesis Testing - Single Populations (Chapter 9)
Means Hypothesis Testing - Two Populations (Chapter 10)
Variance Hypothesis Testing (Chapter 11)

## EXAM 2

Non-Parametric Tests (Chapter 12)
ANOVA (Chapter 13)
Regression (Chapters 14 \& 15)

## EXAM 3

This is simply an outline. Some topics may get pushed down (or up). I will let you know exactly what is covered on each test when the time comes. Use the text book to supplement your notes. Keep in mind that the text doesn't necessarily cover all the same topics in the same order that I will in my lectures.

Class Goals: By the end of the class you should understand all the material outlined above. You should be able to take a dataset and use the tools from this class to reinforce, prove, or disprove your hypotheses. You should also be fluent in Microsoft Excel and be able to create orderly and meaningfully presentations of data and statistical results.

