Introduction

This course introduces the student to the theory and practice of probability and statistics as used in Economics and Business. The text is organized into three main subject areas: Descriptive Statistics, Probability, and Estimation and Inference. The specific topics we will cover will closely follow the order of the text.

The primary purpose of Statistics, as a discipline, is to efficiently synthesize information relevant to pending decisions. Thus, the primary course objective is to impart to the student a set of statistical skills that can be used to enhance performance in economic and business activities. Attaining this objective will involve a balance of formal lectures, examples, and applications.

Required Text and Topics

*The Core Concepts of Economic and Business Statistics* by M. Ryan Haley, Nancy J. Burnett, Chad D. Cotti, and M. Kevin McGee. There are four different versions of the text (one for each author), so be sure to get the **HALEY VERSION**.

The text is available on the D2L site for the course in electronic format (pdf) *at no cost to you*. If you would like a hard copy (though they are not required for the course), go to Copy This!! over in Reeve union and ask for a double-sided, black-and-white copy. The hard copy will cost approximately $15.

We will proceed through the text as per its table of contents. Here is an approximate time-line ordering of the topics.

1. Tabular Descriptive Statistics
2. Graphical Descriptive Statistics
3. Numerical Descriptive Statistics
4. Covariance and Correlation
5. Classical Probability
6. Counting
7. Random Variables
8. Binomial Probability Distribution
9. Poisson Probability Distribution
10. Uniform Probability Distribution
Grades

Course grades are based on a 100 point scale as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>100-92</td>
<td>92-90</td>
<td>90-88</td>
<td>88-82</td>
<td>82-80</td>
<td>80-78</td>
<td>78-72</td>
<td>72-70</td>
<td>70-68</td>
<td>68-60</td>
<td>60-0</td>
</tr>
</tbody>
</table>

If your point total lands exactly on a grade boundary, you will receive the higher grade. Many of you need a C or better in this course to move forward with your major, so this means that you need a point total of 72 or higher by semester’s end. Do not ask for extra credit at the end of the semester because you are unhappy with your grade.

Exams

There will be four exams. The tests will be cumulative, but will tend to emphasize the most recent material. The exam dates are as follows:

1. Exam #1: Friday 24 February (20 points)
2. Exam #2: Friday 16 March (20 points)
3. Exam #3: Friday 13 April (20 points)
4. Exam #4: Friday 11 May (40 points)

The exams will primarily be multiple choice, though some essay and true-false questions may appear as well. Exams are open-note, open-calculator format. I reserve the right to make take-home portions for the exams. The class prior to each exam will be a review session.

Homework

It is crucial that you work and understand the problems in the textbook, and that you resolve any difficulties you encounter by asking questions during class, office hours, or tutor hours. Solutions to most (but not all) problems appear at the end of the textbook. Homework need not be handed in, and it will not be graded.
Pre- and Post-Tests

You are eligible to complete a pre- and post-test for this course, available to you on D2L. The pre-test must be completed during the first two weeks of class; the post-test must be completed during the last week of classes. Your score on the pre-test will not impact your grade, but a score of 75% or better on the post-test will earn you two extra credit points. Note that this is a fairly substantial extra credit opportunity given the 100-point scale for the course; successfully completing the extra credit has the potential to significantly improve your letter grade. You must take both the pre-test and the post-test to be eligible for the extra credit points. There will likely be no other opportunities for extra credit.

Some Friendly Warnings

1. Statistics is especially unforgiving if you fall behind.
2. Just because the exams are open-note does not mean they will be easy.
3. For most of you, the methods from this class will be used in future business courses, so studying hard in this class is a worthy investment.
4. While I do not take attendance (save for the first day), not attending class regularly will make it very difficult to earn a good grade.
5. If you would like to request that I reconsider a grade on an exam, I will do so. However, I will re-grade the entire exam, not just the question you want more points on.
6. The pre- and post-tests likely constitute the only extra credit opportunity for the course.
7. READ THE BOOK AND WORK THE PROBLEMS.

Honor Code and Absences

All honor code rules of the university are in effect for all evaluation criteria (including the pre- and post-tests). If you miss any tests, you will need to provide me with documentation from the dean of students explaining your absence before your are eligible for a make-up exam.