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**Prerequisites:**

CIS1200 (Computer Literacy)
MATH1010 (Intermediate Algebra)

**Required Materials**

1. Class Notes – Available in the bookstore. Each student must have their own copy.
2. Calculator
3. Access to MS Excel® or comparable program
4. Elementary Statistics using Excel® by Mario F. Triola, 3rd or 4th Edition (Recommended, not required)

**Overview**

Although this is technically a first course in business statistics, the goal of the course will be to progress quickly to a more advanced, applied inferential statistics. I plan to take a very different approach to teaching this course than is generally taken: the primary focus is on conceptual understanding and not on hand calculations. The goal is to learn how statistics can be used as a managerial decision making tool.

Whenever possible, computer output will be used to demonstrate a statistical technique. Computer statistical packages will be used to enhance your understanding of computers and how to read and interpret statistical output. The primary statistical package that you will learn how to use will be MS Excel®. I have chosen Excel for several reasons: 1) you will likely have access to Excel in your future job environment, 2) you are expected to understand how to use Excel due to the prerequisite CIS 1200, and 3) Excel provides a relatively quick method of calculating simple statistics.

I recommend that you regularly read the Wall Street Journal or similar publication to increase your understanding of business. Pay particular attention to how statistics is used in the news and media. We will discuss current articles in class. Please feel free to ask any questions you have related to your reading.

**Course Objective**

1. Recognize, calculate and interpret statistical terms.
2. Perform statistical analyses in MS Excel®.
3. Present data in a memo format such that an audience is adequately informed and the data is portrayed with fidelity.
4. To learn and practice a variety of problem solving techniques.
5. Improve analytical skills.
6. Be exposed to issues relating to ethics in statistical reporting.

**Attendance**
You are not required to attend every class and I will not penalize you for absences. However, you are responsible for all material presented in class, regardless if you were present or not. This includes instructions on assignment format and turn-in procedures. If you miss class, I will be glad to tell you what material you may have missed but I will not re-teach it. Occasionally points will be given for class participation, particularly in the case discussions. Participation credit is not redeemable.

**Group Work**
Homework/case study write-ups will be assigned every week. These assignments are a vital part of your learning in this course. Since much of the assignments will involve computer work, students are encouraged to work together, but individual write-ups are required for End of Chapter Problems, however a single case memo is acceptable for each group. It is perfectly fine to help each other with the homework answers, but remember that you are responsible for understanding the material individually.

Minimal equations should be used in the homework for ease (however, you are free to use the Word equation editor if you wish to produce equations); you can type the symbol names (mu for μ, sigma for σ) or use the actual symbol (in Word use Insert ➔ Symbol and then choose the picture of the symbol you want). For instance, you can produce the following equation by using Insert ➔Object ➔ Microsoft Equation 3.0:

$$z = \frac{\bar{x} - \mu}{\sigma / \sqrt{n}}$$

or you can simply write it in text:
z = (x bar – mu)/(sigma/sqrt(n))

or in text with some symbols using Insert ➔ Symbol:
z = (x bar – μ)/(σ/√n)

**Notes**
My notes may frequently refer to an alternative software package called SPSS. SPSS is a powerful data analysis program that can compute many different types of analyses. In most cases, Excel is able to perform the same functions but may have different output. Theoretical concepts will be taught so that you will know when (when not to) use statistical tests and how to interpret the results regardless of the output. Course meetings will combine lectures, case studies, interpretation of computer statistical output, and problem solving.

The Problems Sets are designed to review the material we cover in class as well as important material which we may not cover in class. The problems assigned are indicative of the test questions. The problems assigned will be graded for pass/fail credit.

**Cases and Readings**
Selected cases will be available on Blackboard. Cases are designed to enable a student to integrate statistical theory into real world situations. These situations are often distinctly different from textbook examples.

Your case study grade will be largely determined from participation. Students from the class will be chosen randomly and "cold-called" during the case discussion. It is in your best interest to prepare

each case prior to attending class. Participation credit is awarded to those students able to answer questions from the case. Some cases require you to write-up your position supported by analysis. When a written deliverable is required, I will announce it in class and give you ample time to prepare.

**Data Sets.**
All data sets will be available on Blackboard. They are posted as text files. This will require you to import them into the statistical software of your choice. We will discuss how this is to be done in class.

**Examinations**
There will be three closed neighbor exams. The exams may be in class, take home or computer lab based exams. You may use a calculator during these exams. Partial credit may be available and will be awarded as deemed appropriate by your instructor.

**Course Grade Computation**
Your course grade is based on a point system. The point allocation for exams and homework is:

| | Points |
|---|---|
| Participation | 5/5 |
| Problem Sets | 25 |
| Cases | 20 |
| Exam I | 15 |
| Exam II | 15 |
| Exam III | 20 |
| Total Possible | 105 |

| Points | Grade |
|---|---|
| >93 | A |
| 90 to 92.9 | A- |
| 87 to 89.9 | B+ |
| 83 to 86.9 | B |
| 80 to 82.9 | B- |
| 77 to 79.9 | C+ |
| 73 to 76.9 | C |
| 70 to 72.9 | C- |
| <70 | D |

**How to do well in this course:**

- **Come to class**. Participate in class discussions. Take notes. Get to know others in the class.
- Do all the assigned readings, homework assignments, and suggested study problems and questions.
- Stay current! It is important that you review class notes on a routine basis in order to identify things you don't understand or may need help with. I recommend that you review your class notes at least once a week. Don't wait until the weekend prior to a test. That's not the best time to realize that you don't understand something.
- Come in during office hours or make an appointment to meet at our offices whenever you're having difficulty or have questions you would like to discuss outside of class.
- Form or join and participate in a study group.

**Due Dates**
Assignments, cases and test due dates will be given in class. I try to be flexible in my schedule to allow for class discussion; for this reason, all dates on this syllabus are approximate. At the end of every chapter, I will announce the due dates for the assignments and the due date will be posted in the calendar section of Blackboard. In most cases you will have one week to complete the material after it has been discussed in class. Test and case project dates will be given in class as well. It is your responsibility to communicate with me or other students if you are not present when the dates are given. I am more flexible with late work and tests if it has been communicated prior to the due date. Unless prior approval is given, late homework may be given half credit. I reserve the right to not accept late work or give tests after the scheduled testing date.

**Class Communication/Dmail**
Important class and college information will be sent to your Rebel mail email account. This information includes your DSC bill, financial aid/scholarship notices, notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a Dmail email account. If you don't know your user name and password, go to www.dixie.edu and select "Dmail," for complete instructions. You will be held responsible for information sent to your Dmail email, so please check it often.

**Americans with Disability Act**
Dixie State College and the Udvar-Hazy School of Business seek to provide equal access to its programs, services, and activities to people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the instructor and to the Disability Resource Center (SSC, room 201, 652-7516) to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Disability Resource Center.

**Scholastic Behavior**
All students are expected to uphold standards of academic honesty. Failure to uphold school policies relating to behavior (plagiarism, cheating, etc.) may result in failure of and/or expulsion from the class.

**Approximate Schedule**

| Week | Topic | Section # | Assignments |
|---|---|---|---|
| 1 | Introduction & Descriptive Statistics | SEC1 | #1: Amtech Case HW |
| 2 | Probability | SEC2 | Problem Set 1 |
| 3 | Discrete Random Variables | SEC3 | Problem Set 2 |
| 4 | Sampling Distributions/ **Test I** | SEC4 | Problem Set 3 |
| 5 | Estimation from Sample Data | SEC5 | #2: Kilgore Case w/ write-up |
| 6 | Hypothesis Testing: Single and Double Sample/ **Test II** | SEC6/Sec7 | Problem Set 4<br>Problem Set 5 |
| 7 | Correlation & Regression | SEC8 | Problem Set 6 |
| 8 | Multiple Linear Regression/ **Test III** | | #4: Gotham Giants w/ write-up |