

**Instructor** Kyle S. Wells, PhD  
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Office Hours: After class and by appointment

**Prerequisites:**

CIS1200 (Computer Literacy)  
MATH1010 (Intermediate Algebra)

**Required Materials**

1. Class Notes – Available in the bookstore. Each student must have their own copy.
2. Access to MS Excel<sup>®</sup> or comparable program

**Recommended Materials**

3. Elementary Statistics using Excel<sup>®</sup> by Mario F. Triola, 3<sup>rd</sup> or 4<sup>th</sup> Edition (Copies available in library)

**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<sup>®</sup>. 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<sup>®</sup>.
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  $\mu$ , sigma for  $\sigma$ ) 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:

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

or in text with some symbols using Insert → Symbol:

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

### Notes and Problem Sets

My notes are intended as an overview of the statistical concepts taught in this class. Although they are sufficient for success in this class, additional material may be required for applications in your other courses and your career. 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. Study sessions 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 problem sets must be submitted electronically through Blackboard and must be in a MS word/excel document format, pdf or jpg. It is your responsibility to make sure it is readable. If the assignment is complete and turned in prior to the due date, it will receive a three (3). If the assignment is complete but late for any reason, the assignment will receive a two (2). If they are incomplete, they will receive at most one (1). Solutions for the problem sets will be available once they have been submitted and graded. The problems assigned are indicative of the test questions.

### 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. You will be required to hand in a hard copy of your write up and solution for these cases. Electronic submissions will not be accepted.

Participation credit is available in case study discussions. Students from the class may 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. A hard copy of your case write up is required. Electronic submissions of any type will not be accepted.

### 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 will be in the computer lab. You may use a calculator, MS Excel and your notes during these exams. These are timed test so relying too heavily on your notes may not permit you to complete the exams. Partial credit may be available and will be awarded as deemed appropriate by your instructor.

If you will not be available on the day of the exam, you must notify me ahead of time. I will not allow exams to be taken after the exam dates and make-up exams are not permitted. In extreme cases, I may allow the points allotted to an exam to be re-allotted to another exam. This will be at my discretion and will be only used in rare and extenuating circumstances.

### Course Grade Computation

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

	Points	Points	Grade
		>93	A
Participation	5/5	90 to 92.9	A-
Problem Sets	15	87 to 89.9	B+
Cases	20	83 to 86.9	B
Exam I	20	80 to 82.9	B-
Exam II	20	77 to 79.9	C+
Exam III	20	73 to 76.9	C
Total Possible	<u>105</u>	70 to 72.9	C-
		<70	D

**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. 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 reserve the right to not give tests after the scheduled testing date.

**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.

**Class Communication/Dmail**

You are required to frequently check your dmail account. Important class and college information will be sent to your dmail account, including DSC bills, financial aid/scholarship notices, notices of cancelled classes, reminders of important dates and deadlines, and other information critical to your success at DSC and in your courses. If you don't know how to access your dmail account, go to [www.dixie.edu](http://www.dixie.edu) and select "Dmail" from the left column. To locate your dmail username and password, go to [www.dixie.edu](http://www.dixie.edu), and click on "Log in to student services" (upper right corner).

**Americans with Disability Act**

If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your professor(s) from the Disability Resource Center within the first two weeks of the beginning of classes. Students are to contact the center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability.

You may call (435) 652-7516 for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973.

Our office is located right next to the Testing Center on the bottom floor of the Financial Aid and Career Center building.

**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. Specific DSC policy regarding academic dishonesty can be found in the DSC Policies and Procedures Manual policy 34.

**Approximate Schedule**

<b>Week</b>	<b>Topic</b>	<b>Section #</b>	<b>Assignments</b>
1	Introduction & Descriptive Statistics	SEC1	Problem Set 1
2	Probability	SEC2	Problem Set 2
3	Discrete Random Variables	SEC3	Problem Set 3
4	Sampling Distributions/ <b>Test I</b>	SEC4	Problem Set 4
5	Estimation from Sample Data	SEC5	Kilgore Case w/ write-up Problem Set 5
6	Hypothesis Testing: Single Sample	SEC6	Problem Set 6
7	Hypothesis Testing: Double Sample/ <b>Test II</b>	SEC7	Problem Set 7
8	Correlation & Regression <b>Test III</b>	SEC8/SEC9	Gotham Giants w/ write-up Problem Set 8