

Instructor Kyle S. Wells, PhD
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Office: Udvar-Hazy 309 Office hours: See Canvas®
Blended Study Session: T&R, 11:00 - 11:50 A.M.

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® with Data Analysis Add-in

Recommended Materials

3. Elementary Statistics using Excel® by Mario F. Triola, Any Edition (Copies available in library)

Overview

Business Statistics is the collection, summary, analysis, and reporting of numerical findings relevant to a business decision. Regardless of your eventual career destination, (accounting, marketing, finance or health services) you'll find that statistics and the inferences from statistics are a part of everyday life. The goal of business statistics is making informed decisions. For this reason, we will spend a significant part of class and lab time discussing the implications and inference from statistical calculations and less on the calculations themselves.

Learning Outcomes (LO)

This course is intended to address the following Bachelor of Business program learning outcomes on the introductory and developmental levels:

1. Students will demonstrate a working level knowledge of the core functional areas of business:
 - A. Students will demonstrate a working level knowledge of core business functions of statistics.
 - B. Students will analyze a complex business situation, identify relevant functional statistical issues and suggest viable courses of action
2. Students will process a complex business situation and develop sound alternatives for action utilizing qualitative and quantitative analysis
3. Students will possess the interpersonal and communication skills necessary to succeed in business:
 - A. Students will deliver professional quality oral presentations
 - B. Student will prepare professional quality written presentations
 - C. Students will identify the essential elements of successful teamwork and will reflect upon their competency and experiences in applying them

Course Objective

1. Recognize, calculate and interpret descriptive statistics. [LO 1A]
2. Calculate basic probability events and develop intuition related to probability. [LO 2]
3. Perform statistical case analyses in MS Excel®. [LO 1B, 2, 3B, & 3C]
4. Define and develop hypothesis tests and interpret results. [LO 2]
5. Define and develop correlation and regression tests and interpret output. [LO 1B & 2]
6. Present and explain statistical case data in writing with clarity and fidelity. [LO 3B & 3C]
7. Be exposed to issues relating to ethics in statistical reporting. [LO 1B]

What I Expect of You

I will come to class prepared with application problems and ancillary material. It is your responsibility to prepare for the study sessions and come prepared with questions. I find that students that only make a cursory review of the online notes struggle with the exams.

- **Watch the lectures and review notes in advance of the study sessions!** This is critical as the lectures will not be taught in the lab. You will miss important concepts if the lectures are skipped.
- Come to class. Participate in class discussions. Form or join and participate in a study group.
- Do all the assigned readings, homework assignments, and suggested study problems and questions in a timely manner.
- 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.

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. **Students that study online notes in advance and come to study sessions prepared generally do much better in this class than those that do not.** 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. You may not make up participation credit.

Problem Sets

Problem sets associated with each section are designed to help develop your analytical abilities and to increase your understanding of Statistics. You may work together with other students on these assignments, but all assignments must be submitted through Canvas on an individual basis. If the assignment is complete and turned in prior to the due date, it will receive a three (3). To be complete *the solutions to the problems must be presented, not just the answers!* If the assignment is late for any reason, the assignment will receive a two (2). If the assignment is incomplete, it will receive at most a one (1). It is your responsibility to make sure it is readable. Solutions for the problem sets will be available once they have been submitted and graded. It is your responsibility to check your work.

Cases and Readings

Selected cases will be available on Canvas. 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.

Data Sets

All data sets used in class on the exams will be available on Canvas under lab datasets. They may be 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. You may use a MS Excel and your notes during these exams. Electronic and digital storing devices of any kind are not permitted. The exam questions are True/False, Multiple Choice and multi-step calculation problems. 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.

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. In most cases you will have one week to complete the material after it has been discussed in class.

Course Grade Computation

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

	Points	Points	Grade
Participation	5/5	>93	A
Problem Sets	15	90 to 92.9	A-
Cases	20	87 to 89.9	B+
Test 1	20	83 to 86.9	B
Test 2	20	80 to 82.9	B-
Final	20	77 to 79.9	C+
Total Possible	<u>105</u>	73 to 76.9	C
		70 to 72.9	C-
		<70	D/F

Approximate Schedule

Week	Topic	Section #	Assignments
1	Introduction & Ethics in Statistics		
2	Descriptive Statistics	SEC1	Problem Set 1
3	Descriptive Statistics Case Study		#1: Avalon Case w/ write-up
4	Probability	SEC2	Problem Set 2
5	Discrete Random Variables	SEC3	Problem Set 3
6	Sampling Distributions	SEC4	Problem Set 4
7	Review – Exam I		
8	Estimation from Sample Data	SEC5	Problem Set 5
9	Hypothesis Testing: Single Sample	SEC6	Problem Set 6
10	Hypothesis Testing: Two Samples	SEC7	Problem Set 7
11	Review – Exam II		
12	Correlation & Regression	SEC8	Problem Set 8
13	Multiple Linear Regression	SEC9	
14	Regression Case Study		#2: Gotham Giants w/ write-up
15	Review		
16	Final Exam - Comprehensive		

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.

Class Communication/Dmail

Important class and college information will be sent to your D-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. I may periodically communicate with you through the announcement function on Canvas.

Americans with Disability Act.

If you suspect or are aware that you have a disability that may affect your success in the course you are strongly encouraged to contact the Disability Resource Center (DRC) located in the North Plaza Building. The disability will be evaluated and eligible students will receive assistance in obtaining reasonable accommodations. Phone # 435-652-7516

Additional Resources

Academic Calendar - <http://new.dixie.edu/reg/?page=calendar>

Computer Labs – Hazy Building room 200.

Library: <http://library.dixie.edu>

Writing Center - http://new.dixie.edu/english/dsc_writing_center.php

Testing Center - <http://dixie.edu/testing>

Tutoring Center - <http://dsc.dixie.edu/tutoring/>

Policy for Absences Related to College Functions: <http://www.dixie.edu/humanres/policy/sec5/523.html>

Disruptive behavior policy / classroom expectations: <http://www.dixie.edu/humanres/policy/sec3/334.html>

Academic dishonesty / Academic integrity policy : <http://www.dixie.edu/humanres/policy/sec3/334.html>