

College of Charleston
School of Business
DSCI 232: Business Statistics
Summer I 2017

Professor Information

- **Name:** Dr. Chen-Huei Chou
- **Email:** chouc@cofc.edu (Please start with [DSCI 232] in the title field, message without this portion may be ignored or delayed)
- **Office Hours:** Questions via email

Class Time & Location

- **Time:** June 1 – June 30, 2017 (**Eastern Standard Time**)
- **Location:** Synchronized Online and Online Exclusively

Response Times

Students can expect responses from me as follows:

- **Email:** within 24 hours
- **Assignment and exam feedback:** approximately within 72 hours of submission date

Course Delivery

The synchronous online format allows self-motivated, task-driven students the flexibility to complete coursework over the Internet. Students must have access to a computer with high-speed Internet access throughout the course. Computer failure/unavailability does not constitute an excuse for not completing assignments/exams by the due dates.

The class will be administered through OAKS, the College's learning management system. The course videos are in MP4 format which requires Apple QuickTime player to play over the Internet. The course materials such as PowerPoint slides, Excel files will be available on the OAKS.

Expectations

Students are expected to check the course site on OAKS and your e-mail at least 5 days per week to stay current with course work so that you will be aware of any changes or developments in the schedule. You are expected to contact me over e-mail if you have any questions.

Course Description

Advanced statistical analysis with applications in business and economics utilizing relevant computer software. Topics include business applications in descriptive and inferential statistics emphasizing such topics as simple and multiple regression, analysis of variance, forecasting, quality control, and nonparametric techniques.

Prerequisite

MATH 104 or MATH 250, which covered probability concepts, descriptive statistics, binomial and normal distributions, confidence intervals, and tests of hypotheses. Although knowledge on these topics is expected, we will briefly review the most important topics in class.

Course Objectives

1. Interpret business data using descriptive statistics techniques, including the use of spreadsheet functions.
2. Apply simple concepts of probability distributions to business problems, solving for statistics (given probabilities) and probabilities (given statistics) for normal, t-Student, Chi-Squared and F distributions.
3. Use statistical tests to make inferences about a population based on a sample.
4. Apply hypothesis testing for one and two populations to test for means and proportions in business applications.
5. Apply ANOVA and goodness of fit for testing for differences among multiple populations in business applications.
6. Apply Chi-Squared tests and regression for testing relationships between variables for business decision-making.

School of Business Learning Goal

Quantitative Fluency:

Students will demonstrate competency in logical reasoning and data analysis skills.

Required Software and Hardware

- Reliable fast speed Internet
- A personal computer running Microsoft Windows
- Microsoft Excel 2013 or 2016 (**PC versions**) or Excel 2016 (**Mac version; other Mac versions won't be compatible**)
- Microsoft Word
- PowerPoint Reader
- Internet browser
- Apple QuickTime player (<http://www.apple.com/quicktime/download/>)
- PDF reader such as Adobe Reader
- Printer+scanner or printer+camera (phone or digital camera) or monitor+camera (phone or digital camera) for signature collection in each exam and assignment

Required Textbooks & Materials

- Essentials of Modern Business Statistics with Microsoft Excel. Anderson, Sweeney and Williams. 5th ed. Thomson South; ISBN-13: 978-0840062383; ISBN-10: 0840062389 (There is no need to have access code from the book. Files needed will be posted to OAKS) e-book version:
https://www.vitalsource.com/referral?utm_source=vst&utm_medium=instructor_referral&utm_campaign=instructor_referral&term=9781305445628
- The course PowerPoints, syllabus, videos, Excel files, and other class materials will be available on OAKS.

Scheduled Exam Times

Exam 1: 6:00pm-8:30pm EST on June 15 (Thursday)

Exam 2: 6:00pm-8:30pm EST on June 29 (Thursday)

Note: You are required to take the exams as scheduled online. Technical issue is not a valid excuse for exam makeup

Topics Covered

1. Introduction. Descriptive Statistics
2. Continuous Probability Distributions: Normal, t-Student, Chi-Squared and F.
3. Interval Estimation.
4. Hypothesis Testing – One Population
5. Hypothesis Testing – Two Populations
6. ANOVA Single Factor
7. Simple Regression
8. Multiple Regression

EVALUATION PROCEDURES

Grading and Evaluation:

Activities	Points
Exam 1	35
Exam 2	35
Assignments	30
Total	100

Grade cutoff points are:

Points	Letter Grade	Points	Letter Grade
> 94	A	73-75.99	C
90-93.99	A-	70-72.99	C-
86-89.99	B+	66-69.99	D+
83-85.99	B	63-65.99	D
80-82.99	B-	60-62.99	D-
76-79.99	C+	<60	F

I reserve the right to adjust the grading scale down if needed.

POLICIES AND PROCEDURES

OAKS and MyCharleston Usage:

Grades will be posted on **OAKS** and **MyCharleston**. It is the student's responsibility to ensure that all grades entered are correct. If I have made a mistake, the student has **one week** from when the assignment/exam was handed back to notify me of the mistake. Failure to notify me within this time frame will result in the recorded grade becoming permanent.

Exam Policy:

Students are not allowed to access course materials, Internet, and any communication devices including cell phones, tablets, instant messengers, etc. Exams are closed book and to be taken as scheduled by yourself over the OAKS electronically. During the exam, you can load Excel, Word, and calculator applications only. You need to provide steps reaching your final answers. 50% of the assigned points will be taken if steps are not provided. You may use Word/Excel to type your steps. You may also clearly write down your steps and scan/take clear picture of the write-ups. You

SHOULD upload your **files** and **signature** to the **OAKS** by the scheduled deadline. No makeup exams will be given except for documented emergencies. **In case of emergency please contact the professor via e-mail by the end of the exam. Technical issues such as Internet loss, malfunctioned computer, etc. are not considered valid emergencies.** Points will be taken if files are failed to be submitted to the OAKS. The deadline (server time) set by the OAKS must be followed. Your local computer time may need to be adjusted if needed. It may take a while to upload files to the OAKS. It is students' responsibility to reserve time for uploading files to the OAKS. In case the OAKS folder is closed after scheduled deadline, you should still email the files to me (chouc@cofc.edu) as soon as you can. College of Charleston email received time will be used for making point reduction based on the following criteria.

Late Submission to chouc@cofc.edu	Points Taken
≤ 5 minutes	15 points
> 5 minutes and ≤ 10 minutes	30 points
> 10 minutes and ≤ 15 minutes	45 points
> 15 minutes and ≤ 20 minutes	60 points
> 20 minutes and ≤ 25 minutes	75 points
> 25 minutes and ≤ 30 minutes	90 points
> 30 minutes	100 points

Assignment Policy

It is required to provide your signature page on assignments you will turn in. The individual assignments should be done by yourself. 50% of the assigned points will be taken if steps are not provided. You may use Word/Excel to type your steps. You may also clearly write down your steps and scan/take clear picture of the write-ups. You SHOULD upload your **files** and **signature** page to the OAKS by the scheduled deadline. In case the OAKS folder is closed after scheduled deadline, you should still email the files to me (chouc@cofc.edu) as soon as you can. College of Charleston email received time will be used for making point reduction based on the same criteria listed in the **Exam Policy** section.

Signature Policy

You are required to provide your signature on all works, including assignments and exams, done in this class. Different electronic signature sheets will be provided for different exams and assignments. There are two ways to provide your signature on the provided electronic sheet.

1. First approach:
 - Print out the sheet and sign your name on the paper
 - Scan or take clear picture of the signed sheet. Upload the scanned file or picture to the OAKS.
2. Second approach
 - Load the provided file on your monitor and sign your name on any paper
 - Put your signature on top of the loaded file on the monitor and take clear picture of it. Upload the picture to the OAKS.

Attendance Policy

The daily attendance record being collected on the OAKS is for curving purpose. Please refer to the Introduction slides for details.

Questions and Problems:

You are encouraged to ask questions over e-mail, I would love to hear your ideas and opinions.

College of Charleston Honor Code and Academic Integrity:

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student's actions are related more to a misunderstanding will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XXF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the XX to be expunged. The F is permanent. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration--working together without permission-- is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others' exams, fabricating data, and giving unauthorized assistance.

Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Students can find the complete Honor Code and all related processes in the Student Handbook at <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>

SCHEDULE OF TOPICS

Module	Text Chapters/Topics	Date
1	Ch 1, 2, 3: Descriptive Statistics Ch 6.2: Continuous Probability Distributions: Normal Distribution Ch 7: Sampling Distributions	Learning Schedule 6/1 – 6/7
	Assignment 1 Due (10 points) [by 11:59pm EST]	6/7 (Wednesday)
2	Ch 8: Interval Estimation Ch 9: Hypothesis Tests (1 population)	Learning Schedule 6/8 – 6/14
	Assignment 2 Due (10 points) [by 11:59pm EST]	6/14 (Wednesday)
	Exam 1 (35 points) [6:00pm-8:30pm EST] Coverage: Module 1 and 2	6/15 (Thursday)
3	Ch 10.1,10.2,10.3: Hypothesis Tests (2 populations) Ch 10.4, 10.5: ANOVA	Learning Schedule 6/15 – 6/21
	Assignment 3 Due (10 points) [by 11:59pm EST]	6/21 (Wednesday)
Last day to withdraw from Summer 1 classes with a grade of "W"		6/19 (Monday)
4	Ch 12: Simple Regression Ch 13: Multiple Regression	Learning Schedule 6/22 – 6/29
	Exam 2 (35 points) [6:00pm-8:30pm EST] Coverage: Module 3 and 4	6/29 (Thursday)

* The professor reserves the right to do any necessary change to this schedule.