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 non-parametric techniques.

Academic Prerequisite:
MATH 104/250 covered probability concepts, descriptive statistics, binomial and normal distributions, confidence intervals, and tests of hypotheses. Although knowledge of these topics is expected, we will briefly review the most important topics in class. HOWEVER THE PROFESSOR WON'T EXPLAIN IN DETAIL WHAT WAS EXPECTED FROM THE STUDENT TO LEARN IN MATH 104/250.

Course Objectives:
1. Students will gain practical experience in data visualization including graphical perception using software.
2. When given a business problem, students apply appropriate inferential statistical tests to reach to accurate conclusions.
3. Students can synthesize knowledge in different statistical tools to address sustainability problems.

This course addresses the following School of Business learning goals:
- Goal 1: Quantitative Fluency. Students demonstrate competency in logical reasoning and data analysis skills.

Demonstration of Achievement: Each student will be assessed using exams, homework, quizzes during the semester.

Course Materials
CUSTOM WORKBOOK.

Teaching Method
Lecture (videos), assigned reading, hands-on exercises, and problems. We will use e-learning as a support tool in the course, therefore, students should have the responsibility to learn how to use Excel (use the videos in Microsoft website to review Excel). The professor will assume you know ALL the tasks practiced in the videos posted in OAKS under Excel Basics.

All assignments, videos, assigned readings are MANDATORY at the end of the assigned week. No late assignments will be accepted under any circumstances!!! Solutions to assignments are usually posted right after due date. All students are expected to have access to their account in OAKS and are responsible for keeping their email account active and check it frequently. I will have to use the official g.co/f.edu email account.

Course materials and links to each module will be placed in OAKS and you should regularly checkin for announcements and updates, CHECK THE CALENDAR REGULARLY TOO.

The official computer hardware is PC-windows based. If you are a Mac user, you must learn on your own how to replicate it (which is not hard). Quizzes and exams are time restricted, no additional time is allowed. We evaluate in this class productivity, which means that completing tasks in a specified time is part of our evaluation.

Homework, Quizzes and Exams that require you to submit the "hard copy" means that you must scan, take a picture, etc, of the work and submit it to the professor using the Dropbox no later than the deadline (you can upload it from anywhere in the world!). Failure to show the "scanned copy" will result in a grade of 0. The "scanned copy" must be clear and ready to print, in a single file, otherwise, there is a 20% penalty. If you submit the wrong file, or if I cannot read it, you get 0.

Computer failure/unavailability does not constitute an excuse for not completing assignments by the due date. The recommendation is to start homework as soon as it is posted, in that case, if you have a computer problem, you will have time to fix it before the due date/time.

ALL VIDEOS ARE MANDATORY from start to finish!!!!

Is online for you?

- The asynchronous online format allows self-motivated, task-driven students the flexibility to complete coursework over the internet. If you are not self-motivated/task-driven, it might not be a good idea to take this course online!
- Because we don’t actually meet face-to-face (only for the exams virtually or for synchronous classes), it’s essential that you maintain an active presence in the class, checking OAKS regularly and viewing the assigned lectures/videos as soon as they are posted, before the next videos/lectures come! Remember that I can see when you log onto OAKS and monitor your progress through the class.
- Online is NOT easier than a physical class environment. On the contrary, if you don’t have the discipline and organization to keep up with the class on your own, online can be more difficult than regular physical environments.
- Much of the class will be like a traditional course, except that the online format should encourage more exchanges between students than you might be accustomed to in a physical classroom. You will be expected to do the same sorts of activities that you do in a regular class such as reading and writing, guided by feedback from me, and heavy video watching and practicing on your own.
It is essential that you stay on top of the course assignments. I will post due dates and reminders, but it is on you to make sure that you don’t get behind. Do not make the mistake of thinking this is an easy class because we’re meeting online. The material is quite difficult, and will take a lot of effort on your part to master. A regular physical class normally entails 1 hour and 45 min of classroom time per day for 20 days. The workload for this class will be the same for you to succeed.

- **Weekends!** Although I expect you to be working on the course during weekends, you should not expect me to answer emails during Weekends or nighttime. My times to answer emails are between 8 am and 3 pm. Every now and then I answer emails outside the set time, however, do not expect me to do so on a regular basis. Maximum time for me to respond emails during the week is 24 hours. If I have not responded to your email within this time, please send the email again, and make sure you do not send it to “quesadag@g.cofc.edu”. My email address is “quesadag@g.cofc.edu”.

- **Students are expected to be polite and respectful in ANY communication with others in our course community. This includes emails, discussion postings, etc.**

We are all equal and accepted in this course, if you experience any type of discrimination, please contact your professor.

If you are struggling and need help, contact your professor to get additional support.

**Attendance Policy**
Failure to login and watch the assigned videos by the end of the day is considered as 1 absence. If you do not do the work on one week, your grade is F. Non-negotiable. The combination of 2 absences (excused or unexcused) will result in the reduction of the final course grade to the next lowest grade (i.e. from B- to C+). This policy is non-negotiable. Excessive absences (3 or more days of absence in online assignments), excused or unexcused, will result in the student receiving a WA (an equivalent to an “F”) for the course.

- **Quizzes, exams or homework assignments (pop or announced) cannot be made up for ANY reason.**

- **You must check your Charleston email (g.cofc.edu) regularly; you should also correspond with me through this account only. As part of the FERPA privacy laws, we are expected to communicate through the college’s email system, so following this policy is ultimately in your best interests.**

**SNAP Students/Special Accommodations/Athletes**
Students approved for SNAP services or athletes are required to present official letters to the professor within the first week of class. Failure to do this means the student waives the right for special accommodations for the remaining of the semester.

No additional time will be given for quizzes. We measure in quizzes the ability of the student to respond within a specific time what is being tested, additional to answering the question correctly.

**E-mail Business Etiquette**
E-mail will be responded in less than 24 hours (except on Weekends). Do not abandon business etiquette in your use of e-mail! I will not respond to e-mails if you do not follow the below guidelines:

- **Business-like writing style** (Dear Dr. Quesada, sincerely etc.)
- Be concise and to the point.
- E-mail alias so recipient sees your full name, or your full name with @g.cofc.edu, in his/her e-mail inbox.
- Subject line meaningful to recipient (identify your class DSCI-232-03). Always include this as your subject line!! Including section number (03).
- Content clearly states the purpose of the e-mail including any action to be taken from the professor.
- Be careful about including quotations and sayings in your signature block. Obviously don’t include anything that has potential to be offensive or misunderstood. Think about the impression your message sends to someone who doesn’t know you, and be judicious.

**Grading Structure**
Your grade is not determined by how much time you put in or how “hard” you feel you worked. It is actually on what you produce, the quality of your assignments and tests. Grades are yours to earn, not mine to give!

An “A” is reserved for truly excellent work. If you earn an “A”, you went above and beyond the call of duty not just with your efforts but also with your performance. A “B” indicates very good work. You did not just do the minimum requirements but you made an extra effort to show your skills, and your effort showed. A “C” means you did average work, you did what was asked and you did it satisfactorily – nothing less, nothing more. A “D” means you need to improve – you did below the minimum requirements. An “F” is guaranteed if you turn very poor work or you rarely participate in class.

**CofC Honor Code**
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.

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 XF in the course, indicating failure of the course due to academic dishonesty.

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 providing...
The professor won’t provide any technical assistance on any computer related problem.

**Missing Exams**
- Dates for exams are posted in the Calendar since week 1. If changes are made, the professor will notify them at least a day in advance.
- There will be NO MAKE UPS under ANY circumstances.
- A dropbox in OAKS will be opened to submit files during exams.

**EXAMS ARE INDIVIDUAL WORK. THE HONOR CODE WILL APPLY!!!!**

**Exam Proctoring**
This course will require the use of an exam proctoring service for the course exams. Students are responsible for registering, scheduling, and the cost of the service prior to each exam. Instructions and additional information on proctoring can be found at [https://academicaffairs.cofc.edu/distance-education/online-proctoring/index.php](https://academicaffairs.cofc.edu/distance-education/online-proctoring/index.php)

The cost per exam is not to exceed $25. The professor will offer an alternative, which is to login to Zoom at a specified time. Please understand that it is hard to accommodate everybody in the time that they can, so if you are not able to participate in the Zoom with the instructor (at no cost), you will have to use the online proctoring at your own convenient time (fee specified in the link). Most examinations are under 1 hour and the "Live Proctoring" is required if this method is chosen. The professor will hold the Zoom meetings at 9 am on the specified exam dates (Eastern Standard Time). A link to the Zoom meeting will be posted in OAKS under Calendar. You must activate the video on your computer during the exam, if no video is active, the exam will not be accepted. If you don’t want to share video in a Zoom meeting, you will have to use the fee-based online proctoring.

**Complaints about Exams Grading**
- The professor encourages students to review in detail when exams/quizzes are returned. You have 3 working days after the graded evaluation is turned back to you to make any questions or complaints about it. If that time is passed, it means you have accepted the grade given and no further complaints are accepted.
- No complaints are accepted for any reason if the 3-day period has passed (non-negotiable).

**Inclement Weather:** If the College of Charleston closes and members of the community are evacuated due to inclement weather, students are responsible for taking course materials with them in order to continue with course assignments consistent with instructions provided by faculty. In cases of extended periods of institution-wide closure where students have relocated, instructors may articulate a plan that allows for supplemental academic engagement despite these circumstances.

**Mental & Physical Wellbeing:** At the college, we take every student’s mental and physical wellbeing seriously. If you find yourself experiencing physical illnesses, please reach out to student health services (843.953.5520). If you find yourself experiencing any mental health challenges (for example, anxiety, depression, stressful life events, sleep deprivation, and/or loneliness/homesickness) please consider contacting either the Counseling Center (professional counselors at http://counseling.cofc.edu or 843.953.5640 3rd Robert Scott Small Building) or the Students 4 Support (certified volunteers through texting “4support” to 839863, visit http://counseling.cofc.edu/cct/index.php, or meet with them in person 3rd Floor Stern Center). These services are there for you to help you cope with difficulties you may be experiencing and to maintain optimal physical and mental health.

**Technical Support**
- If you have technical problems, please contact the Student Computing Support Desk at 843.953.5457 or email StudentComputingSupport@cofc.edu. Check for computing downloads and tutorials at [http://blogs.cofc.edu/scs/](http://blogs.cofc.edu/scs/)

Resolve problems promptly. Computer failure/unavailability does not constitute an excuse for not completing assignments by the due date. You must not leave homework/quizzes/exams to the last minute!
MAJOR TOPICS COVERED

- Introduction, Descriptive Statistics.
- Continuous Probability Distributions: Normal, t-Student, ChiSquared and F.
- Interval Estimation.
- Hypothesis Testing – One Population
- Hypothesis Testing – Two Populations
- ANOVA Single Factor
- Simple Regression
- Multiple Regression
- Goodness of Fit Test
- Test of Independence
- EXCEL ADVANCED FEATURES

Miscellaneous Policies:

- Although I will try to maintain the class schedule and objectives, I may need to make adjustments. You are responsible to check OAKS schedule for the most recent calendar of activities and dates. Don’t ask the professor about exams dates, since he/she will not give you as accurate information as the OAKS schedule.

- The professor does not give additional projects to increase students’ grades before or after the exam(s). The professor does not round grades, a 59.9 total grade is an F.

- The professor has the right to disable OAKS 5 hours before the test. You still have your book to study last-minute concepts. However, plan accordingly that you will have no access to data or videos or any other material in OAKS.

- Homework is individual work, and should be completed only by the student taking the course!!! Students will be able to obtain feedback right after the due date of the homework. No late homework assignments will be accepted under any circumstances.

HOMEWORK POLICY (SELF-GRADING)

- Self-grading has many benefits. If you grade your own homework, you see exactly where your mistakes are. You also obtain feedback sooner than if the instructor collects the homework, grades it, and then, returns it some days later.

- A minute after the homework is due, you can go back to OAKS>GRADES>QUIZZES and click on the arrow next to the homework name. Then, select SUBMISSIONS and when the submissions show, click on ATTEMPT 1. You will be able to download an instructor key for the homework or see the formulas used to get to the solution. Notice that the specific formulas vary by student, the downloaded version will have a standard, but you will have to double check with individual feedback for the questions.

- You must correct mistakes on your work using a different colored writing utensil. You must write a note about what you missed (such as math error or “wrong test statistic formula” or “did not multiply by 2”). Failure to use a different colored writing utensil will reduce your grade by 20%.

  Your student id number-CID (found under GRADES in OAKS) and HOMEWORK NUMBER should be on top of the first page.

- Write the score for each problem and the score for the whole assignment at the top of the front page.

- You must submit a scanned copy of your homework in OAKS (create one single file with the name of the homework corresponding to the IHW number). Then, you must use the solutions posted to do the COMPLETE Self-Grading, and then, submit it before 11:59 pm on the homework due date. If you don’t submit homework, you lose the right to submit the self-graded HW, if you do, your grade is still 0. If you get all problems correct (your grade is 100, you don’t to submit a self-graded HW). Self-graded homework is submitted in the same Dropbox as the original homework. Failure to submit the self-graded HW results in a penalty of 20%.

- ONLY ONE FILE SHOULD BE SUBMITTED EACH TIME. IF YOU HAVE MULTIPLE PICTURES, JUST CREATE A WORD DOCUMENT AND ADD EACH IMAGE TO A PAGE, MAKE SURE IT IS READABLE AND CLEAR. ALL HOMEWORK SHOULD SHOW THE WORKINGS ON BOOK TEMPLATES ASSIGNED. If you don’t follow these rules, you get a penalty of 20%.

- All homework (except Homework 1) require complete solutions scanned and uploaded to the Dropbox and the self-graded homework. The complete solutions require all diagrams, formulas, all parts of the templates completed (even if it is not requested in the online version of the homework) for it to be 100% correct. Please do not rely on incomplete solutions, all students should work hard on homework to prepare for tests. If you don’t have complete solutions in the Dropbox or the solutions don’t match the self-graded submissions, your grade will drop to 0 even if your electronic grade under “Quizzes” is 100.

- Failure to submit the self-graded homework results in a penalty of 30% for that particular assignment. The same rule applies if the student does not complete all the work in the designated templates on the book with complete templates, diagrams, etc.
A regular Day during Summer II in DSCI 232 online class

Routine for DSCI 232 online class

Morning: Read assigned book pages; watch/learn videos; practice with solved examples & Practice Problems

Afternoon: Complete Homework without using the book. Then, go back and check with the book (only to verify!!!)

Submit Homework in Quizzes/Dropbox before 11:59 pm (when available)

Take Quiz before 11:59 pm (when available)

After 12 am, check HW feedback and submit self-graded HW in dropbox before 3 pm with corrections/explanations using a different color ink pen