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 250 or MATH 104 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. HOWEVER, THE PROFESSOR WONT EXPLAIN IN DETAIL WHAT WAS EXPECTED FROM THE STUDENT TO LEARN IN THE PREREQUISITE 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.
7) 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**

**Teaching Method**
Lecture and 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). Any detailed questions about excel, should be done outside the classroom to avoid distracting class objectives.

All assignments, videos, assigned readings should be completed by CLASS start time on the assigned date. 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 on OAKS and are responsible for keeping their email account active and check it frequently. I will have to use the official g.cofc.edu email account. Course materials and links to each module will be placed in OAKS and you should regularly check-in 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 use StatPlus, which pretty much takes care of everything (except for histograms). All videos are using a windows environment. ALL EXAMS ARE TO BE COMPLETED IN A WINDOWS ENVIRONMENT!!!

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.

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!!!

**You are expected to study at least 7 hours per week additional to class in order to successfully understand the material!**

**Attendance Policy**
Attendance is required for every class session that we meet face to face. Also, please be on time. Coming late is highly disruptive to everyone. To be early to class is to be on time. To be on time to class is to be late! The door will be locked once class has begun. If you show up after class has started, you will not be allowed to enter class.

- The combination of 3 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+). Non-negotiable. Do not waste your allowed absences, keep them for when you really need them, i.e. sickness, family emergencies, etc. Excessive absences (five or more), excused or unexcused, will result in the student receiving a WA (an equivalent to an “F”) for the course.

- Quizzes, exams or in-class assignments (pop or announced) cannot be made up for ANY reason.
- It is your responsibility to obtain any material that you missed, but please get this information from another student. You are ultimately responsible for information given in class, regardless of whether or not you were there. Emailing me to “see if we did anything important in class that you need to know about” is NOT the path to success in my class! I will not go over missed material in office hours. Again, you must contact a classmate and make sure you are ready before the following class.
- The appropriate use of technology for learning purposes is permitted. Students who are using cell phones at ANY time during class, will be asked to leave and it will count as absence for the class. DO NOT GET ANGRY, OR SHOW DISRESPECT FOR SOMETHING THAT IS YOUR FAULT (not good). Just leave the class quietly and do not do the same the next class. Same rule applies if you behave rudely or are inconsiderate to all participants in class. If you are caught doing any of these more than once, not only will you have to leave class with an absence, but your course grade will fall by one letter grade (e.g. B to B-).
- Typing is distracted while material is being presented, therefore, laptops or tablets are not allowed for note taking. You are welcome to record the class, which is less disturbing or write notes the old fashion way.

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. For all other tests, the student should make an appointment at the Center for Disability Services at the same time that the rest of the class starts the exam (Lightsey Center 104). The student is responsible for not scheduling class right after/right before this class if additional time is requested for exams. If the student decides to do the exam with the rest of the class, no additional time will be given.

E-mail Business Etiquette

E-mail will be responded in 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-232-10). Always include this as your subject line!!! Including section number (10).
- 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.
- Although I expect you to be working on the course during weekends, you should not expect me to answer emails during Weekends or night time. My times to answer emails are 8:30 am to 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”.

Grading Structure

Your grade is not determined by how much time you put 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!

Exams...........................................55%
Homework.....................................30%
Quizzes.......................................15%
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 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. Each student is expected to complete their own work in assignments/quizzes/exams without additional help.

Technology Requirements
Hardware:
Computer with high speed internet access, WebCam, sound and video card (to play videos and use online meetings).
Software:
Microsoft Office

Students can find the complete Honor Code and all related processes in the Student Handbook. Each student is expected to complete their own work in assignments/quizzes/exams without additional help.

Links to all videos are posted on OAKS, including videos for Microsoft Office and Mac.

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 blogs.cofc/scs/

There will be NO MAKE UPS under ANY circumstances. The only time is if you have a medical emergency and then, you will be taking any make-up on the day of the final exam.

EXAMS AND QUIZZES ARE CLOSED BOOKS/CLOSED ADDITIONAL MATERIALS AND ARE INDIVIDUAL WORK. THE HONOR CODE WILL APPLY!!!!
MAJOR TOPICS COVERED

- Introduction: Descriptive Statistics.
- Continuous Probability Distributions: Normal, t-Student, Chi-Squared 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 FOR STATISTICAL ANALYSIS!
  - pearson:
  - EXCEL POLICIES:
  - Miscellaneous Policies:

HOMEWORK POLICY

- 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.
- The day that homework is due, the professor will show you the answers in the first 5 minutes of class. You must have a red-ink pen and a copy of your homework so you can make corrections. If you make the corrections and upload it in OAKS dropbox under Homework corrections. If you got 100 on the homework, you don’t need to submit the Self-Graded homework. If you did not submit homework, you do not need to submit the self-graded HW. All others, if you did not submit the self-graded homework correctly, you get 10% of the HW grade reduced.
- You must keep a record of all your work. You must submit a scanned copy of your corrected homework in OAKS.

Feedback:

- 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).
- Homework corrections must be uploaded in OAKS dropbox under Homework corrections.

Homework Policy:

- Homework is individual work, and should be completed only by the student taking the course. Students will be able to obtain feedback 6 hours after the due date of the homework. No late homework assignments will be accepted under any circumstances.
- 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).

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.
- No food or drinks allowed in the lab. This is a School-wide policy, non-negotiable!
- The professor has the right to disable OAKS at 7 am on exam days. 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 6 hours after the due date of the homework. No late homework assignments will be accepted under any circumstances.
- Homework corrections must be uploaded in OAKS dropbox under Homework corrections.

- Failure to submit the self-graded homework results in a reduction of 10% 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 formulas, diagrams, etc.
- Homework 1 does not require a self-graded homework submission.