

**College of Charleston**  
**School of Business**  
**DSCI 232 - 07: Business Statistics**

**Course Details:**

|                       |                                 |
|-----------------------|---------------------------------|
| Semester:             | Fall 2021                       |
| Course Code:          | DSCI 232- 07                    |
| Course Name:          | Business Statistics             |
| Course Prerequisites: | MATH 104 or MATH 250            |
| Classroom:            | BEATTY CENTER 218               |
| Class Timing:         | TR: 12:15PM - 1:30PM            |
| Final Exam            | Monday, 12/13 @ 1:00PM – 3:00PM |

**Professor Details:**

|                  |  |
|------------------|--|
| Professor:       | Dr. Purushottam Lal (PL) Meena   |
| Office Location: | Beatty Center (BCTR) 324   |
| Office Hours:    | TR: 9:30AM – 10:30AM; W: 10:30AM – 1:30PM; and by appointment  |
| Email:           | <a href="mailto:meenap@cofc.edu">meenap@cofc.edu</a> (Please use DSCI 232-7 in the email subject line) |
| Course website:  | OAKS   |
| Phone (Office)   | 843-953-8150   |

**Course Description:**

This course introduces students to both descriptive and inferential statistics. Coverage includes applications to business and other disciplines and the use of modern statistical tools as a decision support tool. The major topics include descriptive statistics, probability distributions, interval estimation, hypothesis testing, ANOVA, and regression.

**Course Objectives:**

Upon the successful completion of this course, the student will be able to:

1. Analyze business data by conducting descriptive statistical analyses.
2. Learn and apply probability distributions in diverse business problems.
3. Compute confidence interval for the population mean, variance, and proportion.
4. Develop and test hypotheses for one and two populations' means and proportions.
5. Perform one-way analysis of variance (ANOVA) and discuss its applications in businesses.
6. Learn simple and multiple linear regressions and utilize them for solving business problems.

**School of Business Learning Goals:**

- **Communication Skills:** Students will demonstrate the ability, via both written and spoken word, to effectively present, critique, and defend ideas in a cogent, persuasive manner.
- **Quantitative Fluency:** Students will demonstrate competency in logical reasoning and data analysis skills.

- **Global and Civic Responsibility:** Students will be able to identify and define social, ethical, environmental, and economic challenges at local, national, and international levels. Students will also be able to integrate knowledge and skills in addressing these issues.
- **Intellectual Innovation and Creativity:** Students will be able to demonstrate their resourcefulness and originality in addressing extemporaneous problems.
- **Synthesis:** Students will demonstrate the ability to integrate knowledge from multiple disciplines incorporating learning from both classroom and non-classroom settings to complete complex and comprehensive tasks.

### Required Textbook and Resource(s):

- Essentials of Modern Business Statistics with Microsoft Excel. 8<sup>th</sup> edition. Anderson Sweeney; Williams Camm; and Cochran Fry Ohlmann. Cengage Learning.  
**e-book** available at: <https://www.vitalsource.com/products/essentials-of-modern-business-statistics-with-david-r-anderson-dennis-j-v9780357131640>
- The course PowerPoints, syllabus, and data files will be available on OAKS
- Microsoft Excel and IBM SPSS Statistics Software will be used throughout the course as statistical tools

### Descriptive Analytics Assignment:

Each student must collect secondary data from a public source related to any business issue (sources must be cited). Perform descriptive statistical analysis and use the results to make effective management decisions. Students should submit a word report (*not exceeding three pages, Times New Roman 12 point with 1.5 line spacing*) along with data files on OAKS. The assignment will be graded based on:

- Adequacy of data collected,
- Quality of data analysis using the statistical tool(s), and
- Managerial implications

### Assessment Methodology and Grading Guidelines:

There will be one assignment, one team project, and four exams.

| Instrument   | Points     |
|--------------|------------|
| Exam 1       | 50         |
| Exam 2       | 50         |
| Exam 3       | 50         |
| Final Exam   | 100        |
| Quizzes      | 80         |
| Assignment   | 20         |
| <b>Total</b> | <b>350</b> |

*\*The professor can increase the number of assignments/quizzes. All submissions will be checked for plagiarism.*

The final grade will be calculated using the following grade scale:

| Grades | Points (%) | Grades | Points (%) |
|--------|------------|--------|------------|
| A      | >94.00     | C      | 73 – 75.99 |
| A -    | 90 – 93.99 | C -    | 70 – 72.99 |
| B +    | 86 – 89.99 | D +    | 66 – 69.99 |
| B -    | 83 – 85.99 | D -    | 63 – 65.99 |
| B -    | 80 – 82.99 | D -    | 60 – 62.99 |
| C +    | 76 – 79.99 | F      | < 60       |

### Tentative Weekly Topical Class Schedule:

Below is the topic-wise weekly schedule. Please note that this is a tentative schedule, and the professor reserves the right to change it if needed.

| Week | Day       | Topic  | Chapter(s)             |
|------|-----------|--|------------------------|
| 1    | Tu, 8/24  | Introduction to statistics                                 | 1                      |
| 1    | Th, 8/26  | Descriptive Statistics: Data Visualization                 | 1, 2                   |
| 2    | Tu, 8/31  | Descriptive Statistics: Numerical Measure                  | 2, 3                   |
| 2    | Th, 9/2   | Continuous Probability Distributions: Normal Distribution  | 6                      |
|      |           | <i>Descriptive Analytics Assignment due [9/5 @11:59pm]</i> |                        |
| 3    | Tu, 9/7   | Continuous Probability Distributions: Normal Distribution  | 6                      |
| 3    | Th, 9/9   | <b>Quiz 1</b>  |                        |
| 4    | Tu, 9/14  | <b>Exam 1</b>  | <b>1, 2, 3 &amp; 6</b> |
| 4    | Th, 9/16  | Sampling Distributions                                     | 7                      |
| 5    | Tu, 9/21  | Sampling Distributions                                     | 7                      |
| 5    | Th, 9/23  | Sampling Distributions                                     | 7                      |
| 6    | Tu, 9/28  | Confidence Intervals for Means and Proportions             | 8                      |
| 6    | Th, 9/30  | Confidence Intervals for Means and Proportions             | 8                      |
| 7    | Tu, 10/5  | <b>Quiz 2</b>  |                        |
| 7    | Th, 10/7  | <b>Exam 2</b>  | <b>7 &amp; 8</b>       |
| 8    | Tu, 10/12 | Hypothesis Tests (Single Population)                       | 9                      |
| 8    | Th, 10/14 | Hypothesis Tests (Single Population)                       | 9                      |
| 9    | Tu, 10/19 | Hypothesis Tests (Single Population)                       | 9                      |
| 9    | Th, 10/21 | <b>Fall Break. No classes.</b>                             |                        |
| 10   | Tu, 10/26 | Hypothesis Tests (Two populations)                         | 10                     |
| 10   | Th, 10/28 | Hypothesis Tests (Two populations)                         | 10                     |
| 11   | Tu, 11/2  | ANOVA  | 13                     |
| 11   | Th, 11/4  | ANOVA  | 13                     |
| 12   | Tu, 11/9  | <b>Quiz 3</b>  |                        |
| 12   | Th, 11/11 | <b>Exam 3</b>  | <b>9, 10 &amp; 13</b>  |
| 13   | Tu, 11/6  | Simple Regression  | 14                     |
| 13   | Th, 11/18 | Simple Regression  | 14                     |
| 14   | Tu, 11/23 | Multiple Regression  | 15                     |

|    |           |                                   |              |
|----|-----------|-----------------------------------|--------------|
| 14 | Th, 11/25 | Thanksgiving Holiday. No Classes. | 15           |
| 15 | Tu, 12/2  | Multiple Regression               |              |
| 15 | Th, 12/7  | Quiz 4                            |              |
| 16 | Tu, 12/9  | No Class                          |              |
| 16 | Mo, 12/13 | Final Exam (1:00PM – 3:00PM)      | All Chapters |

## POLICIES AND PROCEDURES

### Attendance Policy:

Students are expected to attend every class session. Instructors will inform students of the exact number of absences and late arrivals (three) permitted during the semester. Students who exceed these limits may be subject to a "WA" grade. If a student misses any class or test, the instructor has the right to either grant or deny an opportunity to make up the missed work. In such cases, the instructor shall be the sole judge of the validity of a student's explanation for having missed the class or test.

### Exam Policy:

Students must follow the below guideline during the exams:

- Keep your cell phones and other electronic devices turned off.
- No makeup exams and quizzes will be given except for any documented emergencies.
- All exams and quizzes will be conducted on given dates and times.
- All exams and quizzes will be **open** notes.

### Classroom Behavior:

Behavior that disrupts, impairs, interferes with, or obstructs the orderly conduct, processes, and functions within an academic classroom or laboratory violate the student code of conduct and may result in disciplinary action. This includes interfering with the academic mission of CofC or individual classroom or interfering with a faculty member's or instructor's role to carry out the normal academic or educational functions of his classroom or laboratory, including teaching and research. Students should turn off their cell phones and any other electronic device unless recommended by the professor and don't engage in private conversation with other students during the class.

### 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 an 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 is permitted during the assignment's completion. 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>

### **Academic Support Resource from the Center for Student Learning:**

Students are encouraged to utilize the Center for Student Learning (CSL) services. The CSL offers tutoring for different courses along with assistance in study strategies, writing, and speaking skills. For more information, please visit the CSL website at: <http://csl.cofc.edu>, or call 843-953-5635.

### **Students with Physical or Educational Challenges:**

The College of Charleston provides reasonable accommodations for students who are otherwise qualified but have disabilities, including learning disabilities, health impairments, and other disabling conditions. Students Needing Access Parity (SNAP) should apply at the Center for Disability Services/ for approval. SNAP students should notify me one week before the accommodation is needed.

### **Academic Integrity:**

Each student enrolled in a course at CofC agrees that, by taking such a course, he or she consents to the submission of all required papers for textual similarity review to any commercial service engaged by CofC to detect plagiarism. Each student also agrees that all papers submitted to any such service may be included as source documents in the service's database solely to detect plagiarism of such papers.

Plagiarism is the appropriation of all or part of someone else's works (such as but not limited to writing, coding, programs, images, etc.) and offering it as one's own. Cheating is using false

pretenses, tricks, devices, artifices or deception to obtain credit on an examination or in a college course. Suppose a faculty member determines that a student has committed academic dishonesty by plagiarism, cheating or in any other manner. In that case, the faculty has the academic right to 1) fail the student for the paper, assignment, project, and/or exam, and/or 2) fail the student for the course and/or 3) bring the student up on disciplinary charges.

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