

INSTRUCTIONAL PACKAGE

BUS 240
Business Statistics

Effective Term Fall 2025/Spring 2026/Summer 2026

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Part I: Course Information

Effective Term: Fall 2025/Spring 2026/Summer 2026

COURSE PREFIX: BUS 240 COURSE TITLE: Business Statistics

CONTACT HOURS: 3 CREDIT HOURS: 3

RATIONALE FOR THE COURSE:

Apply data analysis and statistical methodology in order to understand information and use it effectively in making decisions.

COURSE DESCRIPTION:

This course is a study of statistical methods related to business, including descriptive statistics, probability, binomial and normal distributions, and hypothesis testing.

PREREQUISITES/CO-REQUISITES:

(Credit level MAT 101 Minimum Grade of C or Credit level MAT 110 Minimum Grade of C or Credit level MAT 102 Minimum Grade of C) or (Credit level MAT 101 Minimum Grade of TC or Credit level MAT 110 Minimum Grade of TC or Credit level MAT 102 Minimum Grade of TC) or (Multiple Measures Math 1)

REQUIRED MATERIALS:

Please visit the BOOKSTORE online site for most current textbook information.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials.

Access to myHGTC portal for student self-services.

College email access – this is the college's primary official form of communication.

STUDENT IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to complete identity verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit Online Netiquette.

Part II: Student Learning Outcomes

Chapter 1

By the end of this chapter, students will be able to:

- List ways that statistics is used
- Know the differences between descriptive and inferential statistics.
- Understand the differences between a sample and a population.
- Explain the difference between qualitative and quantitative variables.
- Compare discrete and continuous variables.
- Recognize the levels of measurement in data.

Chapter 2

By the end of this chapter, students will be able to:

- Make a frequency table for a set of data.
- Organize data into a bar chart.
- Present a set of data using a pie chart.
- Create a frequency distribution for a data set.
- Understand a relative frequency distribution.
- Construct and interpret a cumulative frequency distribution.

Chapter 3

By the end of this chapter, students will be able to:

- Explain the concept of central tendency.
- Identify and compute the arithmetic mean.
- Compute and interpret the weighted mean.
- Determine the median.

- Identify the mode.
- Explain and apply measures of dispersion.
- Compute and explain the variance and the standard deviation.
- Explain the Empirical Rule.

Chapter 4

By the end of this chapter, students will be able to:

- Construct and interpret a dot plot.
- Identify and compute measures of position.
- Construct and analyze a box plot.
- Compute and describe the coefficient of skewness.
- Create and interpret a scatter diagram.

Chapter 5

By the end of this chapter, students will be able to:

- Explain the terms experiment, event, and outcome.
- Identify and apply the appropriate approach to assigning probabilities.
- Calculate probabilities using the rules of addition.
- Define the term joint probability.
- Calculate probabilities using the rules of multiplication.
- Define the term conditional probability.
- Compute probabilities using a contingency table.
- Determine the number of outcomes using the appropriate principle of counting.

Chapter 6

By the end of this chapter, students will be able to:

- Identify the probability distribution
- Distinguish between continuous and discrete random variables
- Compute the mean and standard deviation of a discrete probability distributions.
- Calculate and explain the binominal distribution probabilities

Chapter 7

By the end of this chapter, students will be able to:

- List the characteristics of the uniform distribution.
- Compute probabilities by using the uniform distribution.
- List the characteristics of the normal probability distribution.
- Convert a normal distribution to the standard normal distribution.

• Find probabilities using the Empirical Rule.

Chapter 8

By the end of this chapter, students will be able to:

- Explain why a sample is often the only feasible way to learn something about a population.
- Describe methods to select a sample.
- Define sampling error.
- Describe the sampling distribution of the sample mean.
- Explain the central limit theorem.
- Define the standard error of the mean.
- Apply the central limit theorem to find probabilities of selecting possible sample means from a specified population.

Chapter 9

By the end of this chapter, students will be able to:

- Define a point estimate.
- Define confidence interval.
- Compute a confidence interval for the population mean when the population standard deviation is known.
- Compute a confidence interval for a population mean when the population standard deviation is unknown.
- Compute a confidence interval for a population proportion.
- Calculate the required sample size to estimate a population proportion or population mean.

Chapter 10

By the end of this chapter, students will be able to:

- Define a hypothesis.
- Explain the five-step hypothesis-testing procedure.
- Define Type I and Type II errors.
- Define the term test statistic and explain how it is used.
- Distinguish between a one-tailed and a two-tailed hypothesis.
- Conduct a test of hypothesis about a population mean.
- Compute and interpret a p-value.
- Conduct a test of hypothesis about a population proportion.

Chapter 13

By the end of this chapter, students will be able to:

- Define the terms dependent variable and independent variable.
- Calculate, test, and interpret the relationship between two variables using the correlation coefficient.
- Apply regression analysis to estimate the linear relationship between two variables
- Interpret the regression analysis.
- Evaluate a regression equation to predict the dependent variable.
- Calculate and interpret the coefficient of determination.
- Calculate and interpret confidence and prediction intervals.

*Students - please refer to the Instructor's Course Information sheet for specific information on assessments and due dates.

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

EVALUATION*

*Varies – please see the Instructor Information Sheet for a breakdown of points/weighted assignments.

*Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.

GRADING SYSTEM:

The Business Department has a seven-day grading policy for all courses. Please note the College adheres to a 10-point grading scale A = 100 - 90, B = 89-80, C = 79 - 70, D = 69 - 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the <u>academic calendar</u> for deadlines for add/drop. You must attend at least one meeting of all of your classes during that

period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

- 1. Academic tutors for most subject areas, Writing Center support, and Academic Coaching for college success skills.
- 2. Online tutoring and academic support resources.
- 3. Professional and interpersonal communication coaching in the EPIC Labs.

Visit the <u>Student Success & Tutoring Center</u> website for more information. To schedule tutoring or coaching, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at <u>www.penjiapp.com</u>. Email <u>sstc@hgtc.edu</u> or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the SSTC <u>Online Resource</u> <u>Center</u> to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following free resources:

- 1. Getting around HGTC: General information and guidance for enrollment, financial aid, registration, and payment plan support!
- 2. In-person and remote assistance are available for Desire2Learn, Student Portal, Degree Works, and Office 365.
- 3. Chat with our staff on TECH Talk, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552. Visit the Tech Central website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 TECH (8324), Option # 1.



HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries have librarians and staff who can aid with research, computers to support academic research and related school-work, and individual/group study rooms. Printing is available as well at each location. Visit the <u>Library</u> website for more information or call (843) 349-5268.

STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L.
- Test administered in writing on paper.
- Test administered through Publisher Platforms (which may have a fee associated with the usage)

Furthermore, tests may have time limits and/or require a proctor.

Testing candidates must make their appointments 24 hours in advance.

Students must bring a physical ID in order to take a test.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the <u>Online</u>

<u>Testing</u> section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Students seeking accommodations are encouraged to visit HGTC's <u>Accessibility and Disability Service webpage</u> for detailed information.

It is the student's responsibility to self-identify as needing accommodations and to provide appropriate documentation. Once documentation is submitted, the student will participate in an interactive process with Accessibility and Disability Services staff to determine reasonable accommodations. Students may begin the accommodations process at any time; however, accommodations are **not retroactive** and will only be applied from the point at which they are approved. Students must contact the office **each semester** to renew their accommodations.

For assistance, please contact the Accessibility and Disability Services team at <u>disabilityservices@hgtc.edu</u> or 843-796-8818 (call or text).

COUNSELING SERVICES:

HGTC Counseling Services strives to optimize student success through managing personal and academic concerns that may interfere with achieving educational goals. Staff are available to every student for assistance and guidance on personal matters, academic concerns and other areas of concern. HGTC offers free in-person and telehealth counseling services to students. For more information about counseling services, please reach out to counseling@hgtc.edu or visit the website the Counseling@hgtc.edu or visit

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Our sincere commitment to both effective business management and equitable treatment of our employees requires that we present this Policy Statement as an embodiment of that commitment to the fullest.

Discrimination is conduct that includes unjust or prejudicial treatment based upon an individual's sex, race/color, religion, national origin, age, disability, service in the uniformed services (as defined in state and federal law), veteran status, political ideas, marital or family status, pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation, genetic information, genetic identity, gender expression, or sexual orientation that excludes an individual from participation in, denies the individual the benefits of, treats the individual differently, or otherwise adversely affects a term or condition of a person's working or learning environment. This includes failing to provide reasonable accommodation, consistent with state

and federal law, to persons with disabilities.

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

Student and prospective student inquiries concerning Section 504, Title II, Title VII, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

Dr. Melissa Batten, VP Student Affairs

Title IX, Section 504, and Title II Coordinator Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu

Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

Jacquelyne Snyder, VP Human Resources

Affirmative Action/Equal Opportunity Officer and Title IX Coordinator Building 200, Room 205B, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212

Jacquelyne.Snyder@hgtc.edu

TITLE IX REQUIREMENTS:

Title IX of the Education Amendments of 1972 protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination.

HGTC prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking and will provide students, faculty, and staff with necessary information regarding prevention, policies, procedures, and resources.

Any student, or other member of the college community, who believes that they have been a victim of sexual harassment, domestic violence, dating violence, sexual assault, or stalking may file a report with the college's Title IX Coordinator or campus law enforcement*.

*Faculty and Staff are required to report these incidents to the Title IX Coordinator when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

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PREGNANCY ACCOMMODATIONS

Under Title IX, colleges must not exclude a pregnant student from participating in any part of an educational program. Horry-Georgetown Technical College is committed to ensuring that pregnant students receive reasonable accommodations to ensure access to our educational programs.

Students should advise the Title IX Coordinator of a potential need for accommodations as soon as they know they are pregnant. It is extremely important that communication between student, instructors, and the Title IX Coordinator begin as soon as possible. Each situation is unique and will be addressed individually.

Title IX accommodations DO NOT apply to Financial Aid. Financial Aid regulations do not give the College any discretion in terms of Financial Aid eligibility.

Certain educational programs may have strict certification requirements or requirements mandated by outside regulatory agencies. Therefore, in some programs, the application of Title IX accommodations may be limited.

To request pregnancy accommodations, please complete the *Pregnancy Intake Form* that can be found here.