



INSTRUCTIONAL PACKAGE

BUS 240
Business Statistics

Effective Term
Fall 2023/Spring 2024/Summer 2024

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Part I: Course Information

Effective Term: Fall 2023/Spring 2024/Summer 2024

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))

***Online/Hybrid** courses require students to complete the [DLi Orientation Video](#) prior to enrolling in an online course.

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 participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification 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 [academic calendar](#) 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 **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email sstc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) 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. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **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 are equipped with computers to support academic research and related school work; printing is available as well. Visit the Library 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.

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 [Online Testing](#) 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. Inquiries may be directed to HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator or designee.

*Faculty and Staff are required to report incidents to the Title IX Coordinators 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).

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