SYLLABUS

DIVISION: Arts, Sciences, and Business   **REVISED:** Spring 2020

CURRICULA IN WHICH COURSE IS TAUGHT: Business Management

COURSE NUMBER AND TITLE: BUS 220, Introduction to Business Statistics

CREDIT HOURS: 3 HOURS/WK   LEC: 3 HOURS/WK   LAB: NA

I.   **CATALOG DESCRIPTION:** Introduces statistics as a tool in decision-making. Emphasizes ability to collect, present, and analyze data. Employs measures of central tendency and dispersion, statistical inference, index number, and time series analysis.

II.   **RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:** As a required course for all students enrolled in Business Management, BUS 220 will address the following Business Management Outcomes. Graduates will demonstrate the ability to: 1. utilize industry standard computer software products in business communication media such as written reports and business plans; 2. perform and interpret basic business math, accounting, and business statistical calculations. Additionally, the students will be familiar with the vocabulary and concepts associated with the content items listed in sections IV and VI.

III.   **REQUIRED BACKGROUND/PREREQUISTIES:**
        BUS 121, Business Mathematics I, is a recommended prerequisite. If students have developmental studies requirements, MTE 1, MTE 2, and ENF 1 must be completed prior to enrollment. ENF 2 may be taken concurrently.

IV.   **COURSE CONTENT:**
- Introduction to Statistics
- Graphical Representations
- Descriptive Data
- Effective Sampling
- Probability
- Normally Distributed Data
- Hypothesis Testing
- Analysis of Variance
- Correlation
- Linear Regression
- Time Series Analysis

V.   THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE

_ Civic Engagement – The ability to contribute to the civic life and well-being of local, national, and global communities as both a social responsibility and a life-long learning process. Degree graduates will demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.

X   Critical Thinking – The ability to use information, ideas, and arguments from relevant perspectives to make sense of complex issues and solve problems. Degree graduates will locate, evaluate, interpret, and combine information to reach well-reasoned conclusions and solutions.

_ Professional Readiness – The ability to work well with others and display situationally and culturally appropriate demeanor and behavior. Degree graduates will demonstrate skills important for successful transition into the workplace and pursuit of further education.

X   Quantitative Literacy – The ability to perform accurate calculations, interpret quantitative information, apply and analyze relevant numerical data, and use results to support conclusions. Degree graduates will calculate, interpret, and use numerical and quantitative information in a variety of settings.

X Scientific Literacy – The ability to apply the scientific method and related concepts and principles to make informed decisions and engage with issues related to the natural, physical, and social world. Degree graduates will recognize and know how to use the scientific method, and to evaluate empirical information.

X Written Communication – The ability to develop, convey, and exchange ideas in writing, as appropriate to a given context and audience. Degree graduates will express themselves effectively in a variety of written forms.

VI. LEARNER OUTCOMES	VII. EVALUATION
Define statistics Differentiate between a population and a sample Differentiate between a parameter and a statistic Construct a graphical representation of data	Written test Homework questions Research project
Calculate and interpret descriptive measures of central location Calculate and interpret descriptive measures of central variability	Written test Homework questions
Discuss various sampling techniques Recognize the importance of collecting an unbiased sample Determine a feasible sampling strategy given a scenario	Written test Homework questions Research project
Calculate and apply basic probabilities Recognize how intersections and unions affect probabilities Determine if two events display independence	Written test Homework questions Class experiment
Demonstrate an awareness for how the Empirical Rule applies to the normal distribution Calculate probabilities based on the normal distribution Construct confidence intervals	Written test Homework questions
Test hypotheses about population parameters Perform and interpret the analysis of variance procedure	Written test Homework questions Group project Class experiment
Determine if variables correlate with one another Interpret the coefficients of a regression model Predict a value for the dependent variable when given a regression model	Written test Homework questions Class experiment