SYLLABUS

DIVISION: Business and Engineering Technology **REVISED:** Spring 2014

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
(Place X by all that apply)

X Communication
X Critical Thinking
___ Cultural and Social Understanding
___ Information Literacy
___ Personal Development
X Quantitative Reasoning
___ Scientific Reasoning

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 • Understand how intersections and unions affect probabilities • Determine if two events display independence	Written test Homework questions Class experiment
• Understand 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 • Understand the importance of the level of significance when testing hypotheses • 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
• Understand the importance of time series analysis for business	Written test Homework questions