



## **Common Course Outline for: BUSN 2220 Statistics for Business and Economics**

### **A. Course Description**

1. Number of credits: 3
2. Lecture hours per week: 3
3. Prerequisites: Math 1100, College Algebra or equivalent
4. Co-requisites: None
5. MnTC Goals: None

**Catalogue description:** This course covers the basic principles and methods of statistics. It emphasizes economic theory and statistical application to business problem solving and decision making.

**B. Date last revised:** June, 2018

### **C. Outline of Major Content Areas**

Graphical descriptive technique  
Numerical descriptive technique  
Data collection and sampling  
Probability  
Discrete probability distributions  
Continuous probability distributions  
Sampling distributions  
Confidence intervals  
Hypothesis testing  
Difference in means  
Analysis of variance  
Chi-squared analysis

### **D. Course Learning Outcomes**

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

1. Analyze the purposes for descriptive statistics and the purposes of inferential statistics
2. Understand the assumptions underlying discrete versus continuous variables
3. Understand the difference underlying nominal, ordinal, interval, and ratio levels of measurement
4. Apply measures of central tendency and dispersion
5. Analyze qualitative variables with frequency tables and graphical charts
6. Analyze quantitative variables with frequency distributions and graphical charts
7. Analyze using linear regression and bivariate correlational concepts, including regression analysis

8. Analyze using empirical and subjective probability concepts
9. Analyze using concepts from discrete and continuous probability distributions
10. Understand sampling methods
11. Apply the central limit theorem
12. Apply confidence intervals for population proportions and population means
13. Apply a one sample test of hypothesis for a population mean
14. Apply a two sample test of hypothesis for a population mean

**E. Methods for Assessing Student Learning**

1. Can include:
  - a. Problem sets
  - b. Assignments
  - c. Simulations
  - d. Random assessments
2. Students should consult their course syllabus for specific grading policies.

**F. Special Information:** This course will use Microsoft Excel to create graphic output and solve problems.