J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: <u>BUS 224</u>   Credits: <u>3</u>

Course Title: <u>Business Statistics</u>

Course Description:

Introduces methods of probability assessment and statistical inference. Includes data presentation; descriptive statistics; basic probability concepts; discrete and continuous probability distributions; decision theory; estimation and sampling distributions; Central Limit Theorem; simple linear regression and hypothesis testing for a single sample or population. Emphasizes business and economic applications. Utilizes computer software as a tool for problem-solving. Lecture 3 hours. Total 3 hours per week. 3 credits

General Course Purpose:

This course is designed to provide the student with the statistical tools necessary to make informed business decisions based on data provided. It provides students with a frame of reference when learning statistics. The focus of the topics is on the theoretical and practical application in business, the interpretation of the results, and what should be done if the assumptions are incorrect. Business students and those of other disciplines can benefit from this course.

Course Prerequisites/Corequisites:

Prerequisite: MTH 161

Student Learning Outcomes:
This course supports the following general learning outcome topics

Critical Thinking
- Use information, ideas and arguments from relevant perspectives to make sense of complex issues and solve problems. Students will create, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
- Written Communication
- Develop, convey, and exchange ideas in writing, as appropriate to a given context and audience. Students will express themselves effectively in a variety of written forms

Quantitative Literacy
- Perform accurate calculations, interpret quantitative information, apply and analyze relevant numerical data, and use results to support conclusions. Students will calculate, interpret and use numerical and quantitative information in a variety of settings.

Major Topics to be Included:

- Presentation of data
- Numerical representations of data
- Introduction to probability
- Probability distributions

- Sampling distributions
- Estimation
- Hypothesis testing
- Decision theory
- Regression analysis

Effective Date/Updated: August 22, 2023