MATH C096: SUPPORT FOR INTRODUCTION TO STATISTICS

Item	Value
Curriculum Committee Approval Date	10/27/2023
Top Code	170100 - Mathematics, General
Units	2 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Credit: Support Course - Non-Degree Applicable (S)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Pass/No Pass (B)

Course Description

This course covers the underlying algebra skills and concepts, along with mathematical problem solving and study skills, that promote or are needed for success in Introduction to Statistics. Concurrent enrollment in specified sections of STAT C1000 is required. COREQUISITE: STAT C1000. NOT DEGREE APPLICABLE. Not Transferable.

Course Level Student Learning Outcome(s)

1. Summarize data graphically and numerically.
2. Choose the proper statistical procedure for performing an experiment and collecting data.

Course Objectives

- 1. Interpret data displayed in tables and graphically.
- 2. Apply concepts of sample space and probability.
- 3. Calculate measures of central tendency and variation for a given data set.
- 4. Identify the standard methods of obtaining data and identify advantages and disadvantages of each.
- 5. Calculate the mean and variance of a discrete distribution.
- 6. Create a support system including study groups, discussion groups, tutors, success coaches, friends and family members, along with supplemental resources and websites recommended by other students and the instructor.
- 7. Deal with testing and math anxiety, create a growth mindset, increase number and types of study skills, learn about meta-cognition and other aspects of the affective domain needed for success in college-level math.

Lecture Content

Study Skills, Group Work, Affective Domain Discussions, and Use of Technology: Graphing Calculator, Statistical Software and Internet Search Learn How Statistics Is Different from College Algebra Decimals, Fractions, Percents, and Graphs Getting ready to Evaluate Statistical Formulas Preparing for Probability Evaluating Formulas for Probability Distributions Building Blocks for Working with Normal Distributions Interval of Numbers Formulas for Hypothesis Testing Formulas for Two-Sample Hypothesis Testing Linear Equations

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)
- DO NOT USE (HY)

Instructional Techniques

The instructor shall deliver lectures of course content; assign homework and quizzes; deal with math anxiety by establishing a friendly, student-centered learning environment; relate material in the course to real life and the outside world; involve active learning; and require participation and regular, substantive interaction (RSI), including student-to-student and student-to-instructor interaction through the use of individual, small-group and whole-class discussion; apply and include technology to increase motivation such as graphing calculators, the Internet, and computer software; and include appropriate methods of summative assessment including midterm and final exams.

Reading Assignments

Reading assignments are included as part of studying for and completing homework, quizzes, midterm exam, final exam, interaction and discussion, and group projects as assigned.

Writing Assignments

Written and computer-based assignments are included as part of studying for and completing homework, quizzes, midterm exam(s), final exam, interaction and discussion, and group projects as assigned.

Out-of-class Assignments

Out-of-class assignments are included as part of studying for and completing homework, quizzes, midterm exam, final exam, interaction and discussion, and website research projects as assigned.

Demonstration of Critical Thinking

Students will be able to choose from a variety of approaches to solve and explain solutions and justify reasoning verbally or in writing and may be included in classroom discussions, quizzes, midterm examination, final examination, and projects.

Required Writing, Problem Solving, Skills Demonstration

Students will be able to choose from a variety of approaches to solve and explain solutions and justify reasoning verbally or in writing and may be included in classroom discussions, quizzes, midterm examination, final examination, and projects.

Eligible Disciplines

Mathematics: Masters degree in mathematics or applied mathematics OR bachelors degree in either of the above AND masters degree in statistics, physics, or mathematics education OR the equivalent. Masters degree required.

Textbooks Resources

1. Required Triola, M. Elementary Statistics, 13th ed. Pearson, 2018

Other Resources

1. Coastline Library