MATH A096: SUPPORT FOR INTRODUCTION TO STATISTICS

Item	Value
Curriculum Committee Approval Date	05/18/2022
Top Code	170200 - Mathematics Skills
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	Basic Skills (B)
Repeatable	No
Grading Policy	Pass/No Pass (B)

Course Description

A concurrent support course for STAT C1000, Introduction to Statistics, designed to review prerequisite skills necessary for success. Topics include operations with real numbers; percents, ratios and proportions; selected algebraic topics essential to statistics; the graph of a line; and problem-solving strategies. COREQUISITE: STAT C1000. NOT DEGREE APPLICABLE. Not Transferable.

Course Level Student Learning Outcome(s)

1. Graph linear equations and identify the slope and intercepts.
2. Solve linear inequalities in one variable and graph the solution on a number line.

Course Objectives

- 1. Address the affective side of learning in order to provide students with the skills necessary to be successful in a transfer level math course.
- 2. Perform operations with real numbers.
- 3. Understand and use percents, ratios and proportions.
- 4. Understand and use algebraic topics essential to statistics.
- 5. Graph lines.
- 6. Developed skills essential from solving word problems.

Lecture Content

Lecture Content: Learning skills Study skills Time management Math anxiety Test taking skills Operations with real numbers Rounding Addition, subtraction, multiplication, and division of real numbers Order of operations Computations with a calculator Scientific notation Summation notation Interval notation Set Theory Intorduction to Set Theory Union and Intersection Percents Percents as decimals and fractions Ratios and proportions Ratios as fractions Solving problems involving proportions Algebraic topics essential to statistics Evaluating algebraic expressions Solving linear equations Solving inequalities in one variable Graphing an inequality in one variable on the number line Function notation and the algebra of functions Square roots Rational exponents Introduction to graphing lines The Cartesian coordinate system Finding intercepts and slopes of lines Graphing linear equations Interpreting the graph of a linear equation Skills for solving word problems in statistics Identify the question to be answered Setting up appropriate notation Setting up an appropriate equation/inequality Clearly communicating the correct answer Exponential and logarithmic functions. (optional) Introduction to exponential and logarithmic functions. (optional) Properties of exponential and logarithmic functions. (optional) Solving equations involving exponential and logarithmic terms. (opti onal) Lab Content: None

Method(s) of Instruction

- Lecture (02)

Instructional Techniques

Lecture, discussion, collaborative learning

Reading Assignments

Textbook chapters and supplements 1.0 hour/week

Writing Assignments

Short-answer questions. Essay questions. Group and/or individual projects. 1.0 hour/week

Out-of-class Assignments

Out of class assignments may include: Practice problem sets requiring application of course material A data set assignment requiring the organization, analysis, and interpretation of raw data Preparation assignments that require students to answer specific questions that will be discussed in an upcoming class meeting. 2 hours/week

Demonstration of Critical Thinking

Group work, quizzes, written tests or comprehensive final exam, and application of skills in support of Statistics.

Required Writing, Problem Solving, Skills Demonstration

Group work, quizzes, written tests, or comprehensive final exam.

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 Sullivan, M.. Statistics with Integrated Review (to accompany Statistics: Informed Decisions Using Data 5th edition), 2nd ed. Pearson, 2017

Other Resources

1. Instructors may choose to use software such as MyStatLab, StatCrunch, ALEKS, WebAssign, Excel, R, JMP, MINITAB, ActivStats, SAS, SPSS, or TI-graphing calculators. 2. Other appropriate textbook as chosen by fulltime faculty