

# MATH A086N: MATH JAM FOR SLAM PATHWAY NONCREDIT

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	170200 - Mathematics Skills
Units	0 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Noncredit: Support Course (U)
Material Fee	No
Basic Skills	Basic Skills (B)
Repeatable	Yes; Repeat Limit 99
Grading Policy	P/NP/SP Non-Credit (D)

## Course Description

This is a preparation course for MATH A100 and STAT C1000, designed to review prerequisite skills necessary for success. Topics include operations with real numbers; conversion between decimals, percents, and fractions; selected algebraic topics; the graph of a line; and problem-solving strategies. Noncredit. NOT DEGREE APPLICABLE. Not Transferable.

## Course Level Student Learning Outcome(s)

1. Solve word problems
2. Graph Linear Equations

## 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. Convert between decimal, percent and fraction.
- 4. Evaluate Algebraic Expression
- 5. Solve linear equations and systems of equations.
- 6. Graph linear equations and inequalities.
- 7. Solve word problems.

## 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 Percents Percents as decimals and fractions Ratios and proportions Ratios as fractions Solving problems involving proportions Perimeter and Area of Polygons and Circles Find the perimeter and area of a rectangle and a square Find the perimeter and area of a triangle Find the perimeter and area of a parallelogram and a trapezoid Find the circumference and area of a circle Algebraic topics Evaluating algebraic expressions Solving linear equations Solving inequalities in one variable Solving compound inequalities Solving system of linear equations in two variables Solving absolute value equations and inequalities 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 and linear inequalities Interpreting the graph of a linear equations Skills for solving word problems Identify the question to be answered Setting up an appropriate notation Setting up an appropriate equation/inequality Clearly communicating the correct answer

## Method(s) of Instruction

- Enhanced NC Lect (NC1)
- Online Enhanced NC Lect (NC5)
- Live Online Enhanced NC Lect (NC9)
- DE Delayed Enhanced NC Lect (NCD)

## Instructional Techniques

Lecture, discussion, Collaborative learning

## Reading Assignments

Textbook chapters and supplements. 1 hour/week

## Writing Assignments

Short-answer questions. Essay questions. Group and/or individual projects. 1 hour/week

## Out-of-class Assignments

Out of class assignments may include: Practice problem sets requiring application of course material 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.

## Required Writing, Problem Solving, Skills Demonstration

Group work, quizzes, written tests.

## 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 Michael Sullivan, III. Statistics: Informed Decisions Using Data, 5th ed. Pearson, 2018

## Other Resources

1. Other appropriate textbook or software as chosen by fulltime faculty.
2. Integrated Review Materials to accompany Statistics: Informed Decisions Using Data