

MATH-1130 SURVEY OF MATHEMATICS 3 CREDITS

SYLLABUS

CATALOG DESCRIPTION

This course will develop students' ability to work with and interpret numerical data, to apply logical and symbolic analysis to a variety of problems, and/or to model phenomena with mathematical or logical reasoning. Topics include financial mathematics used in everyday life situations, statistics, and optional topics from a wide array of authentic contexts.

Prerequisites: High School Algebra 1 course grade of C or better or

 Co-requisite MATH 101

Semester Offered: Fall, Spring

COMMON STUDENT LEARNING OUTCOMES

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

COURSE LEARNING OUTCOMES

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

1. Construct and analyze graphs and/or data sets.
 - a. Gather and organize information.
 - b. Understand the purpose and use of various graphical representations such as tables, line graphs, tilings, networks, bar graphs, etc.
 - c. Interpret results through graphs, lists, tables, sequences, etc.
 - d. Draw conclusions from data or various graphical representations.
2. Use and solve various kinds of equations.
 - a. Understand the purpose of and use appropriate formulas within a mathematical application.
 - b. Solve equations within a mathematical application.
 - c. Check answers to problems and determine the reasonableness of results.
3. Understand and write mathematical explanations using appropriate definitions and symbols.
 - a. Translate mathematical information into symbolic form.
 - b. Define mathematical concepts in the student's own words.
 - c. Use basic mathematical skills to solve problems.
4. Demonstrate problem solving skills within the context of mathematical applications.
 - a. Show an understanding of a mathematical application both orally and in writing.
 - b. Choose an effective strategy to solve a problem.
 - c. Gather and organize relevant information for a given application.