Columbus State Community College  
Mathematics Department  
Public Syllabus

Course and Number: MATH 1025 - Quantitative Literacy  
Credits: 3  
Class Hours Per Week: 3  
Prerequisites: DEV 0114 with a “C” or higher, MATH1099 (DEV0114 modules), or placement by COMPASS score

DESCRIPTION OF COURSE:
This is a first course in algebra specifically designed for students enrolled in programs that do not require college algebra. Traditional beginning algebra topics including basic numeric/algebraic skills and reasoning, linear equations, application modeling, and data literacy are addressed in a contextualized format using a pedagogy that promotes problem solving and critical thinking through collaborative learning and online tools.

SPECIAL COURSE REQUIREMENTS:
Computer/internet access is required to complete online homework assignments

LEARNING OUTCOMES:
The goal of this course is to develop students’ basic numeric, algebraic, and statistical skills necessary to be successful in the next mathematics course.

GENERAL EDUCATION GOALS:
Columbus State Community College has defined a series of general education outcomes that all students are expected to acquire before they graduate which include:

- Critical Thinking
- Quantitative Skills

TEXTBOOK, MANUALS, REFERENCES, AND OTHER REQUIRED MATERIAL:

- **Connect Math** - Access to the Connect Math online learning environment  
**MUST be purchased through the CSCC bookstore**
- **Textbook** - *Pathways to Math Literacy* by Dave Sobecki and Brian Mercer.  
  - A paper copy of the textbook can be purchased through your Connect Math course for $25, or this textbook can be purchased at the bookstore.
- A graphing calculator is REQUIRED. The Texas Instruments' TI-84 (regular, Plus, Silver, etc.) graphing calculator is strongly recommended, fully supported, and approved for use during proctored assessments.

Calculator Alternatives: Some students may prefer to use a CASIO-FX-9750GII, TI-Nspire (non CAS version), or a TI-83. These are less expensive options that are similar to the TI-84, and that are approved for use during proctored assessments. However, note that your instructor will primarily use the TI-84 when teaching, meaning that you will need to learn how to perform any necessary operations, using these other calculators, without your instructor’s help.

Other graphing calculators may be permitted. If you own a different calculator, please check with your current instructor to see if your calculator will be allowed during their proctored assessments.

The TI-89, TI-92, TI-Nspire CAS, or other Computer Algebra System (CAS) calculators, are never allowed during proctored assessments.

Your instructor may require that your graphing calculator’s memory be reset (all RAM cleared) prior to each proctored assessment.

The Columbus State Bookstore sells both the TI-84 and CASIO-FX-9750GII for your convenience. Additional resources supporting the use of the TI-84 and CASIO-FX-9750GII may be available at: http://www.cscc.edu/academics/departments/math/graphing-calculator.shtml.

- Computer/internet access
GENERAL INSTRUCTIONAL METHOD:
Instructional methods may include face-to-face or video lectures or demonstration, face-to-face or virtual discussion, individual or group activities including the use of visual aids, graphing calculators, computers and/or other technologies. Students may be expected to participate in these activities during class and/or outside of class. Instructors may require class participation, interpersonal interaction, collaborative learning, and peer review. Online assignments using Connect Math will count toward your course grade.

NOTE TO STUDENTS: To achieve a mastery of the course material, the Mathematics Department recommends that the student should be prepared to spend an average of 9 hours per week on this course.

STANDARDS AND METHODS FOR EVALUATION:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Group Assignments (daily)</td>
<td>20%</td>
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<tr>
<td>Individual Class Assignments (daily)</td>
<td>20%</td>
</tr>
<tr>
<td>Connect Math Application Problems</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>Midterm</td>
<td>20%</td>
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**Group Assignments:** Students will complete group assignments during every class period. Group assignments will be graded on accuracy and active participation in the group. These assignments are to be completed in-class and cannot be made up if a student misses class. The instructor and other members of the group will be responsible for evaluating level of participation/contribution for each student and students will rotate through the various roles in the group (leader, recorder, communicator, etc.)

**Individual Assignments:** Students will complete individual assignments during every class period after the group learning has occurred. Individual assignments will be graded on accuracy. These assignments are to be completed in-class and cannot be made up if a student misses class.

**Midterm and Final Exam:** There will be a departmental midterm over the first half of the course and a departmental final exam over the second half of the course.

**Connect Math Application Problems:** The Application problems will come from the textbook and will be completed in the online system, Connect Math. They consist of answers to short reflection questions that follow each lesson and application problems that are similar to the group work problems. These will be completed by each student individually, on their own.

**GRADING SCALE:**
- 90% - 100% = A
- 80% - 89% = B
- 70% - 79% = C
- 60% - 69% = D
- 0% - 59% = E

**UNITS OF INSTRUCTION:**
- Percentages and Pie Charts
- Interpreting and Drawing Bar Graphs
- Organizing Information with Venn Diagrams
- Estimation and Number Sense
- Recognize Patterns
- Using Measures of Average
- Basic Probability
- Dimensional Analysis
- Rates of Change
- Interpreting Relative Difference/Relative Error
- Inputs, Outputs, and Writing Applied Expressions
• Polyá’s Problem Solving Procedure
• Algebraic Expressions in Decision Making
• Solving Equations and Inequalities
• The Basics of Graphing
• Slope and Rate of Change
• The Connection Between Graphs and Equations
• Writing Linear Equations Based on Data
• Linear Relationships and Lines of Best Fit
• Solving Problems with Linear Equations and Systems
• Standard Deviation and Normal Distributions
• Using Scientific Notation