



COURSE SYLLABUS

1. **TITLE OF COURSE:** Quantitative Literacy

PREFIX/NUMBER: MAT 050

CREDIT HOURS: 4

CONTACT HOURS: 60

2. **PREREQUISITE:** ACCUPLACER scores EA 30-84 or AR > 40

3. **RESOURCES NEEDED:**

TEXT: *Math Lit* by Almy & Foes

http://bookstore.pueblocc.edu/wm_home.htm

4. **SUPPLIES:** Laptop computer, pencil, paper, scientific calculator

5. **COURSE DESCRIPTION:** Develops number sense and critical thinking strategies, introduces algebraic thinking, and connects mathematics to real world applications. Topics in the course include ratios, proportions, percents, measurement, linear relationships, properties of exponents, polynomials, factoring, and math learning strategies. This course prepares students for Math for Liberal Arts, Intro to Statistics, Integrated Math, and college level career math courses.

6. **COURSE OBJECTIVES:**

- A. Demonstrate knowledge of and the ability to solve problems involving ratios, rates, proportions, percents, and measurement conversions.
- B. Demonstrate knowledge and usage of formulas.
- C. Demonstrate knowledge of and the ability to solve linear equations and inequalities.
- D. Demonstrate knowledge of and the ability to calculate and simplify expressions containing exponents and numeric square roots.
- E. Demonstrate knowledge of and the ability to perform algebraic manipulations involving polynomials, polynomial operations, and basic factoring.
- F. Demonstrate the use of critical thinking skills to problem solve.

7. **EVALUATION PROCEDURES:**

Minimum Grading Scale:

Percentage Score Range

Letter Grade

90% to 100%

S/A

80% to 89%

S/B

70% to 79%

S/C

60% to 69%

U/D

0% to 59%

U/F

8. COURSE OUTLINE:

Textbook Content: Cycles 1 – 4

Cycle 1

- 1.1 Focus Problem, Step 1: Understand the Problem
- 1.3 Getting Started: Skills
- 1.4 Getting Started: Groups
- 1.5 A Tale of Two Numbers
- 1.6 Part and Whole
- 1.7 The Elusive A in Math
- 1.9 Multiply or Divide?
- 1.10 Focus Problem, Step 2: Devise a Plan
- 1.11 Higher or Lower?
- 1.12 The X Factor
- 1.14 Good Eats
- 1.15 General Number
- 1.16 Up and Down
- 1.17 The Social Network
- 1.18 Focus Problem, Step 3: Carry Out the Plan
- 1.21 Infinity and Beyond
- 1.23 Focus Problem, Step 4: Look Back

Cycle 2

- 2.1 Focus Problem, Step 1: Understand the Problem
- 2.4 Sign and Size, Part 2
- 2.5 An Ounce of Prevention
- 2.6 Measure Up
- 2.7 Count Up
- 2.8 Focus Problem, Step 2: Devise a Plan
- 2.9 Order Up
- 2.10 Does Order Matter?
- 2.11 Fair Share
- 2.12 Seat Yourself
- 2.13 Punt, Pass, Kick
- 2.14 Ramp Up
- 2.16 Focus Problem, Step 3: Carry Out the Plan
- 2.20 Focus Problem, Step 4: Look Back

Cycle 3

- 3.1 Focus Problem, Step 1: Understand the Problem
- 3.4 A Fine Balance
- 3.6 Separate but Equal
- 3.8 Focus Problem, Step 2: Devise a Plan
- 3.9 Game On
- 3.10 Quarter Wing Night
- 3.12 Get in Line
- 3.13 Gas Up and Go

3.14 Focus Problem, Step 3: Carry Out the Plan

3.18 Focus Problem, Step 4: Look Back

Cycle 4

4.1 Focus Problem, Step 1: Understand the Problem

4.2 A Matter of Change

4.3 Little Giants

4.4 Outwit and Outlast

4.6 A Model Approach

4.7 Focus Problem, Step 2: Devise a Plan

4.8 Chain, Chain, Chain

4.9 Hot and Cold

4.10 Going Viral

4.13 Focus Problem, Step 3: Carry Out the Plan

4.16 Error Estimation: Order of Magnitude

4.17 Focus Problem, Step 4: Look Back

9. METHODS OF INSTRUCTION:

To be successful in this course, students are expected to participate in a variety of activities as determined by the instructor. The instructor may assign point values to such activities.

This course uses *MyLabsPlus* for all assignments and exams and requires active participation in the use of the online software program. All Assignments and Exams must be done in *MyLabsPlus*.

Special Note for Online Section (01W): This course requires active participation in using computer software to view demonstrations, hear lectures, and respond to assignments on the web. Class meetings will be delivered on the web. **YOU ARE NOT REQUIRED TO ATTEND ONSITE CLASSES; ALL WORK IS COMPLETED ONLINE.** The examinations will be given via *MyMathLab*. You must have access to a computer that allows access to the internet, if you do not have such access, you **MUST DROP FROM THE COURSE IMMEDIATELY.**

10. STUDENT CONDUCT:

All students at Pueblo Community College are expected to adhere to the Pueblo Community College (PCC) Student Conduct as described in the PCC Student Handbook. Students may be removed from one class session by the faculty/instructor for any violation of the Code or classroom rules. Additional sanctions, including withdrawal from this class, for violations of the Code or classroom rules are applied through the Dean of Student Success Office by the Director of Student Judicial Affairs.

11. USE OF ELECTRONICS IN THE CLASSROOM:

Computers and other electronic devices may be used in the classroom only for academic purposes as directed by the instructor. Texting and/or accessing personal e-mail and social networking sites such as Facebook are not allowed. All cell phones must be turned off during class. If a student uses an unapproved electronic device during a test or class activity, the student will receive no credit for the activity or test, may be asked to leave the classroom, and/or may fail the course for cheating.

12. ACADEMIC INTEGRITY:

Pueblo Community College is committed to providing a superior educational experience for all students who attend the college. Academic integrity and honesty in all educational classrooms and programs are critical in providing this high level of education. Academic dishonesty is any form of cheating which results in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own. For a complete definition of academic dishonesty, see the PCC Student Handbook.

13. DISABILITY STATEMENT:

Students who have a documented disability may be eligible to receive accommodations for this class. Please contact the Disability Resources Center at 549.3446 for further information.

14. ATTENDANCE POLICY:

Dropping Classes:

It is the student's responsibility to drop a course if it becomes necessary. Drop dates are assigned to all courses and are found on the schedule through MyPCC – Portal. If a student does not want to be held liable for tuition and fees or have a transcript record created, he or she must drop the course before the drop date for the course.

The deadline for dropping this course is _____

Withdrawal from Classes:

Withdrawal dates are assigned to all courses and are found on the schedule through MyPCC – Portal. If a student misses 20 percent of any class beginning with the first official date of enrollment, the instructor **will withdraw** him/her from the course. When this happens, the instructor will assign a "W" grade, and the student will be liable for all tuition and fees related to that course. Students may decide to withdraw from the course through MyPCC – Portal. They will be liable for all tuition and fees related to the course regardless of whom initiates the withdrawal.

The deadline for withdrawing from this class is _____

In this class, 12 hours of absences are equal to 20% of the class.

Approved by Faculty:

Approved by Curriculum: April 3, 2012

Approved by Curriculum – Change VPSS to Dean: Sept. 4, 2012

Modified: 9-17-12 to protect document – SDC

Modified by Instructor: 6/23/13 cdn