Salem Community College MAT092 Course Syllabus

**MAT092 Pre-Algebra**: Credits 4:0:4, (Credits do not apply toward graduation requirements.) Prerequisite: None

Contact Ken Robell: (856) 351-2704, [krobell@salemcc.edu](mailto:krobell@salemcc.edu)

**Course Description:** This course is designed to provide students with the concepts and skills necessary for further study in Elementary Algebra. Topics will include integers, prime numbers, fractions, decimals, percents, algebraic equations, graphing and geometry. The concepts and skills of MAT092 are introduced utilizing computerized and programmed materials then reinforced through lecture and individualized instruction.

**Course Performance Objectives:**

Course Performance Objective #1: The student will understand the use of standard notation with whole numbers, and be able to perform calculations using whole numbers.

Course Performance Objective #2: The student will understand the use of integers, perform calculations using integers, manipulate algebraic expressions, and solve basic equations.

Course Performance Objective #3: The student will understand the use of fraction notation, perform multiplication and division using fractions, and solve basic equations.

Course Performance Objective #4: The student will understand the use of fraction notation and mixed numerals, perform addition and subtraction of fractions and mixed numerals, perform multiplication and division using mixed numerals, and solve basic equations.

Course Performance Objective #5: The student will understand the use of decimal notation, perform calculations using decimal notation, and solve basic equations.

Course Performance Objective #6: The student will understand the graphs of points and linear equations.

Course Performance Objective #7: The student will understand ratios, rates, and proportions, and solve problems using proportions.

Course Performance Objective #8: The student will understand percent, and solve percent problems.

Course Performance Objective #9: The student will understand integer exponents, and simplify exponential expressions.

**Required Text(s):** MyMathLab Standalone Access Card (contains ebook version of Bittinger, Marvin L., Prealgebra, 6th Ed (2012), Addison Wesley) ISBN: 0-321-19991-X

OR

Bittinger, Marvin L., Prealgebra, 6th Ed (2012), Addison Wesley, ISBN: 9780321760098 (includes MyMathLab Student Access Code Card)

**Materials / Supplies*:***Personal headphones are required to access audio content.

**Additional Costs:** Students are required to access the internet outside of class time to complete assigned homework or assessments. This may be done at the computer labs at the college, or by using private computer equipment. Any charges incurred by using equipment outside of the college are the student’s responsibility.

**Course Activities**: Students will use computer based assessments to develop a customized individual instructional plan. This individual content will be delivered by computer, supplemented by the instructor.

**Course Requirements and Means of Evaluation:** The student will be required to complete homework and to complete unit examinations. The college requires that your final grade be A (90-100), B (80-89), C (70-79), F (below 70), or F/A (failure due to attendance).

**Final Grade Calculation:** 90 – 100 = A, 80 – 89 = B, 70 – 79 = C, Below 70 = F, Failure due to attendance = F/A

Grades for this course are not included in Student GPA Calculation. The F/A grade is given for failing the course and missing 30 percent or more of the course.

Please refer to the instructor’s syllabus addendum (to be distributed in class) for specific information regarding the course requirements and means of evaluation.

**ADA Statement**: If you have a 504 Accommodation Plan, please discuss it with your instructor. If you have any disability but have not documented it with the Disability Support coordinator at Salem Community college, you must do so to be eligible for accommodations. To contact the Disability Support Coordinator, call 856-351-2773, visit DON108, or email disabilitysupport@salemcc.edu to set up an appointment. To find out more information about disability support services at Salem Community College, visit www.salemcc.edu/students/student-success-programs/disability-support.

**Course Content Outline:**

1. Whole Numbers
   1. Notation
   2. Addition
   3. Subtraction
   4. Multiplication
   5. Division
   6. Rounding
   7. Solving Equations
   8. Exponents
   9. Order of Operations
2. Integers
   1. Addition
   2. Subtraction
   3. Multiplication
   4. Division
   5. Order of Operations
   6. Algebraic Expressions
   7. Like Terms
   8. Solving Equations
3. Fractions
   1. Multiples and Divisibility
   2. Factorizations
   3. Fraction Notation
   4. Multiplication
   5. Simplifying
   6. Reciprocals
   7. Division
   8. Least Common Multiples
   9. Addition
   10. Subtraction
   11. Solving Equations
   12. Mixed Numerals
   13. Order of Operations
   14. Complex Fractions
4. Decimals
   1. Decimal Notation
   2. Order
   3. Rounding
   4. Addition
   5. Subtraction
   6. Multiplication
   7. Division
   8. Fractions and Decimals
   9. Estimating
   10. Solving Equations
5. Graphing
   1. Ordered Pairs
   2. Equations in Two Variables
   3. Graphing Linear Equations
6. Ratio and Proportion
   1. Ratios
   2. Rates
   3. Proportions
7. Percent
8. Exponents