

MATH 4

Intermediate Algebra

- I. Course Description:** MATH 4 expands upon the topics of Algebra I including rational expressions, radicals and exponents, quadratic equations, systems of equations, and applications. It develops the mathematics proficiency necessary for selected curriculum entrance. Credits not applicable towards graduation. Lecture 5 hours per week.
- II. Prerequisites:** You must make a satisfactory score on an appropriate proficiency examination and you must have completed MATH 3 or its equivalent.
- III. Grade:**
- S = Satisfactory (75% or more)**
 - R = Repeat (progress in course but grade less than 75%)**
 - U = Unsatisfactory (no or very little progress)**
- IV. Instructional Materials:**
Textbook: Intermediate Algebra by Miller, O'Neill and Hyde (second edition)
A scientific calculator or graphing calculator is required.
- V. Overall Objectives:**
1. Simplify algebraic expressions using the order of operations.
 2. Perform operations using exponents.
 3. Understand scientific notation.
 3. Solve linear equations and inequalities, including application problems and absolute value problems.
 4. Understand functions, function notation, and the algebra of functions.
 5. Graph linear functions, find the slope of a line, and find the equation of a line.
 6. Solve systems of equations with 2 or 3 unknowns.
 7. Perform algebraic operations on polynomials including factoring.
 8. Solve polynomial equations by factoring, completing the square, extracting square roots, and by the quadratic formula.
 9. Perform algebraic operations on rational expressions.
 10. Solve rational equations.
 11. Simplify radicals and perform algebra operations using complex numbers.
 12. Understand exponential and logarithmic functions.
- VI. Attendance:** It is expected that you will attend every class session. You are responsible for the material covered, if you should miss class. If your absences exceed 20% of the class sessions, your Instructor has the authority to withdraw you from the class. Please keep your Instructor informed when you must miss class.
- VII. Supplemental Materials:** Videotapes and software covering each section and keyed to this textbook, review problem-solving methods and guide students through practice problems. Videotapes are available in the Learning Lab and Math Lab. Tutorial software is also available in the Math Lab (Rm. 225).
- VIII. Disability Services Policy:** Reasonable accommodations will be made for students with disabilities provided those students have registered with the Office of Disability Services.

Present your teacher with the documentation.

**TIDEWATER COMMUNITY COLLEGE
CLASSROOM AND LABORATORY
EMERGENCY PROCEDURES FOR FACULTY**

In the event of a bomb threat, tornado, or fire, students and staff may be asked to evacuate the building or move to a secure location within the building. Evacuation routes for movement to an external location or to a shelter within the building are posted at the front of the room. Students should review the maps and make sure that the exit route and assembly location for the building are clearly understood. If you have a disability that may require assistance during an evacuation, please let your faculty know at the end of the first class.

MATH 4: INTERMEDIATE ALGEBRA COURSE OUTLINE
Text: Intermediate Algebra (second edition)
Author: Miller, O'Neill and Hyde

Chapter One: Review of Basic Algebraic Concepts
1.1 Sets of Numbers and Interval Notation
1.2 Operations on Real Numbers
1.3 Simplifying Expressions