

Miami Dade College – Homestead Campus
MAT 1033 – Intermediate Algebra (3 credits)
Fall 2007-2 Ref # 440498

Day/Time	Lecture: Tuesday and Thursday, 5:40 – 6:55 PM
Classroom	Room G306 , MDC-Homestead Campus
Instructor	Mr. EL Hassan Saadioui Cellular: 305-742-8243 , Internet: esaadiou@mdc.edu
Office Hours:	Learning Support Lab, Room D-203, T/R 10:00-5:30
Course Description:	Through this course students develop various concepts of Algebra. Students will solve linear, quadratic, rational, and radical equations; graph linear equations and inequalities in one variable; graph linear equations in two variables; solve and graph systems of linear equations and inequalities in two variables; simplify rational expressions; simplify expressions containing rational exponents; simplify complex numbers; solve related applications. <u>Prerequisite:</u> MAT 0020, 0024, or a prescribed score on the Algebra Placement Test. Special Fee. (3 hour lecture).

Resources

Instructor	Course web site assignments (tracked tutorials) and practice exams
Textbook	<u>Elementary Algebra</u> Carson and Gillespie, 1 st Edition
Learning Support	Tutoring is provided by the Learning Support Lab located in the Information Technology Center (Room D203). A course web site (MyMathLab) provides videos, tutorial exercises, and practice tests

Class Procedures

Attendance	A sign-in sheet will be available for every class to verify attendance. College policy dictates that any student that has three or more unexcused absences may be dropped from the course.
Supplementary Materials	MYMATHLAB on-line software package sold separately or included with new textbook. Graphing calculator required, preferably the TI-83 or 83+.
Review Sessions	Practice tests will be provided and review sessions will be held the class prior to the exams. It is critical to attend class to review for the exams.
Learning Support Lab	You are encouraged to use the learning support lab in room D203, as this is your opportunity to work with your instructor one-on-one and to keep up with the math lab exercises. You must complete 250 "Tracked Tutorial Exercises" CORRECTLY from the sections covered in the syllabus using MyMathLab by the evening of your last exam.

Grading Procedure

Components

80% Exams: six exams covering one chapter. Except for unusual circumstances, no make-up exams will be provided. Therefore, if you miss an exam, no make-up will be provided and a zero will be recorded.

5% Attendance: a sign-in sheet will be available at the beginning of class to verify attendance. Each class counts for approximately 0.156% points towards your final grade (total of 32 classes).

15% Homework: You must complete 250 online tracked tutorial exercises CORRECTLY using MyMathLab from the sections covered during the semester.

Grading Scale

A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = 0-59

No pluses or minuses will be given. In order to receive an incomplete, the student must be passing the course with a "C" or better and must have attended at least two-thirds of the classes.

Course Competencies

Competency 1: The student will demonstrate knowledge of the slope of a line by:

- Determining the slope of a line given two points that lie on the line.
- Determining the slope and intercept(s) of a line given its equation.
- Determining the slope of a line from the graph.
- Finding the slope of a line that is parallel to a given line.
- Finding the slope of a line that is perpendicular to a given line.

Competency 2: The student will demonstrate knowledge of linear equations and inequalities in two variables by:

- Solving literal equations.
- Finding an equation of a line given two points.
- Finding an equation of a line given a point on the line and information about the slope of the line.
- Writing an equation of a line in standard form.
- Writing an equation of a line in slope-intercept form.
- Graphing linear equations in two variables using the slope and y-intercept of the line.
- Graphing linear inequalities in two variables.

Competency 3: The student will demonstrate knowledge of equations in two variables by:

- Solving direct variation problems.
- Solving inverse variation problems.

Competency 4: The student will demonstrate knowledge of systems of linear equations by:

- Solving a system of linear equations in two variables using the addition method.
- Solving a system of linear equations in two variables using the substitution method.
- Solving a system of linear equations and inequalities in two variables by graphing.
- Solving applications involving systems of linear equations.

Competency 5: The student will demonstrate knowledge of rational expressions and equations by:

- Performing operations of addition, subtraction, multiplication and division on rational expressions.
- Simplifying complex fractions.
- Solving equations involving rational expressions including literal equations.

- d. Dividing polynomials.

Competency 6: The student will demonstrate knowledge of radicals and rational exponents by:

- a. Adding, subtracting, multiplying and dividing expressions involving radicals.
- b. Simplifying expressions containing rational exponents.
- c. Applying the properties of exponents to expressions with rational exponents.
- d. Solving radical equations.

Competency 7: The student will demonstrate knowledge of complex numbers by:

- a. Knowing the meaning of i .
- b. Writing the square root of a negative number in terms of i .

Competency 8: The student will demonstrate knowledge of quadratic equations by:

- a. Solving quadratic equations by factoring.
- b. Solving quadratic equations by the square root method.
- c. Solving quadratic equations by the quadratic formula.
- d. Solving quadratic equations by completing the square.

Section 7.3: page 584, #5-21 odds

Section 7.4: page 594, #7-15 odds, 19-53 odds

Section 7.5: page 605, #7-27 odds

Section 7.6: page 616, #7-35 odds, 43-49 odds

Chapter 9: Roots and Radicals

Section 9.1: page 741, #15-29 odds, 61-71 odds

Section 9.2: page 751, #5-51 odds

Section 9.3: page 759, #5-43 odds, 51-61 odds

Section 9.4: page 769, #5-17 odds, 21-41 odds, 59-87 odds, 103-121 odds

Section 9.5: page 780, #7-49 odds

Section 9.6: page 794, #15-43 odds, 51-59 odds, 67-81 odds, 107-111 odds

Chapter 10: Quadratic Equations

Section 10.1: page 820, #7-15 odds, 21-35 odds, 51-59 odds

Section 10.3: page 841, #7-13 odds, 15-29 odds

Section 10.4: page 854, #7-17 odds, 23-35 odds, 39-47 odds, 55-59 odds, 65-75 odds