INSTRUCTOR: *Dr.Jose Serpa*　　　　　　　　**PHONE**: *305-237-6110*
Room: 　　　*1369*　　　　　　　　　　　　**Email**: *jserpa@mdc.edu*
　　　　　　　　　　　　　　　　　　　　　　http://faculty.mdc.edu/jserpa/

TEXTBOOK: Beginning Algebra, Lial, M.; Hornsby, J & McGinnis, 11th Edition, Pearson Addison – Wesley.

COURSE: MAT1033　　　　　　　　　　　　**MEETING DAYS**: *T,R*
　　　　　　　　　　　　　　　　　　　　　　8:00 am – 11:20 am
REFERENCE: *Ref # 794365*　　　　　　　　**ROOM**: *1388*

COURSE DESCRIPTION:

The course addresses operations with algebraic expressions, radicals, radical equations, rational expressions, rational equations, rational exponents, complex numbers, quadratic equations, linear equations and inequalities in two variables, introduction to functions.

PREREQUISITE:

MAT0022C or MAT0028 or qualifying grade in math college placement test.

EVALUATION POLICY:

There will be four unit tests worth 100 points each and a comprehensive mandatory Final Exam. **There will be no makeups.** The Homework will be posted online. You can earn up to 10 extra credits toward each of the unit exams. HW is due the same day of the corresponding test.Your final grade will be based on the average of your three best scores on the unit tests and the Final Exam. The Final exam may **NOT** be dropped. I may assign the seating during any of the tests or Final Exam.

GRADING SCALE:

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

ATTENDANCE:

Attendance to class is encouraged. Students are expected to attend and participate in class. Students are responsible for all material covered in class. Students who attend class, and do not appear on the class roll will be asked to report to the Register Office to obtain a paid/validation schedule. Under no circumstances you will be allowed to remain in class if your **schedule** is not **paid/validated**.

DROPS/WITHDRAWALS:

It is the student's responsibility to withdraw from the class if he/she should decide to in order to receive a grade of "W". However, I periodically purge my class roster. If you are continuously absent and do not inform me of a reason, you may be purged from the class.

LAB HOURS: You will complete one lab-hour a week within the lab facilities, with or without a tutor. Reports showing the attendance will be given to instructors the week of the tests. All students that make use of the lab facilities must sign in and out properly.

Lab facilities: Computer Courtyard- Room 1217
　　　　　　　　Math and Sciences Lab-Room 1214

CLASSROOM BEHAVIOR:

Beepers, cellular phones and any electronic devices must be turned off before class.

Please, be prompt. Late arrivals are very disturbing for the instructor and disruptive to fellow students. You should plan to leave enough time to allow for traffic, parking, inclement weather, etc.

Cheating: Cheating will not be tolerated in this course. Any student caught will receive an automatic F in the test.

INCOMPLETES:

Incompletes will only be given in the case of a medical emergency if the student has a passing grade.

Course Competencies:

Competency 1:   **The student will demonstrate knowledge of the slope of a line by:**
    a.   Determining the slope of a line given two points that lie on the line.
    b.   Determining the slope and intercept(s) of a line given its equation.
    c.   Determining the slope of a line from a graph.
    d.   Finding the slope of a line that is parallel to a given line.
    e.   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:
    a.   Solving literal equations.
    b.   Finding an equation of a line given two points.
    c.   Finding an equation of a line given a point on the line and information about the slope of the line.
    d.   Writing an equation of a line in standard form.
    e.   Writing an equation of a line in slope-intercept form.
    f.   Graphing linear equations in two variables using the slope and y-intercept of the line.
    g.   Graphing linear inequalities in two variables.

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

    a.   Solving direct variation problems.
    b.   Solving inverse variation problems.

Competency 4: The student will demonstrate knowledge of systems of linear equations by:
    a.   Solving a system of linear equations in two variables using the addition method.
    b.   Solving a system of linear equations in two variables using the substitution method.
    c.   Solving a system of linear equations and inequalities in two variables by graphing.
    d.   Solving applications involving systems of linear equations.

Competency 5: The student will demonstrate knowledge of rational expressions and equations by:
    a.   Performing operations of addition, subtraction, multiplication and division on rational expressions.
    b.   Simplifying complex fractions.
    c.   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

I reserve the right to make changes in this syllabus as needed. Any changes will be announced in class as early as possible

SCHEDULE

WEEK		TOPICS & EVALUATIONS
1		Review Chapter 6 , 7.1-7.2
		7.3-7.8
2		**Review, Test I (7.1 – 7.8)** 8.1-8.2
		8.3-8.7
3		**Review, Test II (8.1 – 8.7)**
		9.1-9.4
4		**Review, Test III (9.1– 9.4),**
		3.3- 3.5
5		4.1-4.5
		Review, Test IV (3.3- 3.5, 4.1 – 4.5)
6		**Review, Final Exam**

How do the course objectives relate to the Miami-Dade Learning Outcomes?
What follows below is a list of the ten learning outcomes that have recently been prepared by Miami Dade faculty and administrators.
As graduates of Miami Dade College, students will be able to:

1. Communicate effectively using listening, speaking, reading, and writing skills.

2. Use quantitative analytical skills to evaluate and process numerical data.

3. Solve problems using critical and creative thinking and scientific reasoning.

4. Formulate strategies to locate, evaluate, and apply information.

5. Demonstrate knowledge of diverse cultures, including global and historical perspectives.

6. Create strategies that can be used to fulfill personal, civic, and social responsibilities.

7. Demonstrate knowledge of ethical thinking and its application to issues in society.

8. Use computer and emerging technologies effectively.

9. Demonstrate an appreciation for aesthetics and creative activities.

10. Describe how natural systems function and recognize the impact of humans on the environment.

Each course taken at the college addresses some of these learning outcomes. MAT1033 addresses outcomes 1, 2, 3, 4, 8, 9.