



## Syllabus

### MAT0022C Developmental Mathematics Combined

**Term: SPRING 2012**

**Reference #: 966608**

**Instructor's Name: REBECA REINOSO**

**E-mail:** *rreinos1@mdc.edu*

**Office:** Math Lab, Room # 2223

**Mail-box:** Math Lab, Room # 2223

**Office Hours:** T/R 5 - 5:30, 8:45 - 9:15

To leave a message for the instructor, please call the Mathematics Learning Center at 305-237-3834 during its hours of operation:

**M T W R** 7:30 AM - 8:00 PM

**F** 7:30 AM - 2:00 PM

**S** 10:00 AM-2:00 PM.

#### ***Course Description:***

This course combines Developmental Mathematics I and II. The student will learn operations on signed numbers, solving linear equations and inequalities in one variable, operations on polynomials, factoring, integer exponents, radicals, graphing, and applications.

This course does not satisfy the college level mathematics requirements

AA degree-seeking students: Upon successful completion of MAT0022C (grade of S), you should register for MAT1033. After earning a grade of C or better in MAT1033, you should register for MGF1106, MGF1107, MAC1105, or STA2023 depending on your major and the institution to which you are planning to transfer. Be sure to take your mathematics courses in consecutive terms

Credits: 5

#### ***Pre-requisites***

Appropriate placement score or grade of **P** in MAT0018

#### ***Textbook***

Pre-algebra & Introductory Algebra. Third Edition, by Elayn Martin-Gay, Pub. Prentice-Hall

ISBN: 9780321744531

My Math Lab Course ID: **REINOSO59412**

#### ***Assistance***

Assistance for your mathematics classes is provided at the Mathematics Learning Center in room 2223. There, you will find course-related support material, and tutors that will help you to successfully complete this course.

You do not need an appointment to get assistance from the tutors, but keep in mind that they cannot work with one student for a prolonged period of time as they must help all students and might have to take turns among them.

If you have a problem with the Mathematics Learning Center services, please contact any of its supervisors (Arcides Acosta, Maliya Beylin, Jose De Paz, or Verdieu Lucas) at 305-237-3834 or visit their offices in room 2223. If *after speaking with a supervisor* the problem persists, then you need to visit the Mathematic Department Chairperson (Miguel Montañez) in room 1540 as the next step.

### ***Classroom and Laboratory Etiquette***

The instructor would like to welcome all students into an environment that creates a sense of community, pride, courtesy and respect; we are all here to work cooperatively and to learn together. In order to create a smooth and harmonious learning environment, please make every attempt to come to all the class sessions, to come to class on time, and to stay until the end of the class session unless you previously have informed your instructor that you must leave early. There might be a time when you unavoidably arrive late for class, we ask you to please come into the classroom quietly (through the back door if there is one) and to seat closest to the entrance.

Once the class session has begun, please do not leave the room and then re-enter unless it is an emergency. If you miss a class meeting for any reason, you are responsible for all material discussed, for announcements made in your absence, and for acquiring any materials that may have been distributed in class. You are responsible for contacting the instructor for this information during the instructor's office hours.

You are encouraged to ask questions in class, but that is also important that we are all able to stay focused on the class discussion. For this reason, only one person in the class at a time should be speaking. Side conversations are distracting for surrounding students and for the instructor. Professional behavior is expected at all times.

The MDC Students' Rights and Responsibilities Handbook describes students' appropriate and inappropriate behaviors, along with their consequences. Additionally, please be aware that cheating, plagiarism, and disruptive behavior are not tolerated and can result in serious consequences such as failure of a course or dismissal from the college. For more information, go to:

[http://www.mdc.edu/policy/student\\_rights\\_and\\_responsibilities.pdf](http://www.mdc.edu/policy/student_rights_and_responsibilities.pdf)

Beepers, cellular telephones and smart devices must be turned off. ***The vibrate mode is not considered turned off.*** Absolutely no text messaging or instant messaging is allowed in the classroom at any time. The instructor may ask you to leave the classroom for the day if you are caught performing these activities.

Please refrain from bringing food or drinks into any classroom or the Mathematics Learning Center (room 2223).

### ***Office Hours***

Your professor urges you to avail yourself of his/her individual instruction during office hours. Do not wait until you are in trouble. If you have been absent or late to class, please read the lesson you missed and come to his/her office prepared with questions. Instructor's office hours are posted on the first page of this syllabus.

### ***Problems with the Instructor***

If you are having a problem with your mathematics instructor, please see that instructor **during** his/her office hours. Before or after class is generally not a good time to discuss a problem with an instructor who is either about to start class or on the way to the next class. If *after speaking with your instructor during his/her office hours* you cannot resolve the problem, then you need to visit the Mathematics Department Chairperson (Miguel Montañez) in room 1540 as the next step.

### ***Attendance***

The number one key to educational success is to attend classes. Students are responsible for any work missed when absent. Class attendance will be recorded daily. If you attend less than 50% of the lecture time, you may be considered absent for the day by your instructor. ***Frequent absences may cause you to be dropped from the course.*** You should make an effort to always be in class, and on time. *Lateness is rude and disruptive.*

### ***Registration***

It is your responsibility to make sure that you are registered for this course. Be sure to obtain a copy of your schedule to verify the reference number and that you do not have any outstanding fees. *You will not be allowed to take the any exam, specially the final exam, if you are not in your instructor's class roster* so make sure to resolve any issues prior to the exam date.

### ***Withdrawal***

If you feel that you will be unable to complete the requirements for passing this class, you have the option to withdraw from the class by the College's "drop date" of 03/14/2012. However, there are consequences of which you need to be aware if you drop a class or stop attending and you should always speak to your instructor or an advisor first. For example, you must earn at least two-thirds or 67% of the total credits for which you have registered and that failure to comply with this requirement will adversely impact your financial aid status with MDC. If after considering the possible consequences, you still opt drop the class, keep in mind that it is your responsibility to do so and failure to withdrawal will result in you earning a grade of "F" for the course you stop attending.

If extenuating circumstances (e.g., illness, accident, change in employment situation, etc.) prevent you from continuing to attend your class before the drop date, speak to your instructor first and if needed, to the Chairperson, Miguel Montañez (office 1540) to assess your options.

### ***Study Sessions***

Developmental Mathematics courses require study sessions and laboratory hours. The study sessions are designed to give students an opportunity to communicate with each other about their course work, to get individualized help from the study session facilitator, to review for exams, to work in practice worksheets, and in some cases, to work on course-related projects. **You are required to attend every study session.**

To earn a grade of **S** in the study session, you must earn a grade of at least 70%. **Your Study Session instructor will send periodic updates of your grades to your class instructor so that your instructor is aware of your progress.** If you have a problem with your Study Session, speak to your study session instructor first. If after speaking with your study session instructor you cannot resolve the problem, please contact any of the Mathematics Learning Center supervisors (Arcides Acosta, Maliya Beylin, Jose De Paz, or Verdieu Lucas) at their offices in room 2223.

### ***Calculators***

The use of calculators (including smart devices with calculator features) is not allowed during in-class activities, study sessions or during class quizzes and exams.

### ***Lab Hours***

**You are required to complete 16 hours during the term in the Mathematics Learning Center (Room 2223).** We recommend that you completed at least 50% of the required hours by the midway point of the term. Keep in mind that you *will be credited up to a maximum of three hours on any given day.* You may not complete the required Lab hours during times when you are scheduled to be in your Math class or in your Study Session. **You will need to check in and out of the Math Lab each time** you are there to earn the credit for the Lab hours.

### ***Grading***

In this class, you will have

- 6 Unit Exams.
- In-class or online quizzes.
- Online homework assignments.
- A Departmental Exit Test, which is cumulative and must be taken during final exam week on the date and time designated by the registrar's office (to view the official schedule go to: <http://www.mdc.edu/main/finals>).

### ***Study Session Grade***

The Study Session grade will be based on the Attendance and Study Session Activities. Refer any questions to your study session instructor on how the study session grade will be calculated.

## Lecture Grade

The Lecture grade will be calculated using the formula below:

$$\text{Lecture Grade} = \frac{(\text{Sum of 6 Exams}) + (\text{Average of HW / Quizzes})}{7}$$

In this, as in all Developmental Mathematics courses, you will earn a grade of **S**, **P** or **U**.

The grade of **S** (Satisfactory) is the required passing grade.

The grade of **P** (Progress) is not a passing grade.

The grade of **U** (Unsatisfactory) is equivalent to a grade of **F** (Fail) and will count against your GPA.

To earn a grade of **S** (Satisfactory) you will need to fulfill **all** of the following requirements:

- Complete a minimum of 16 hours in the Mathematics Learning Center (Room 2223).
- Complete the required workload for the Study Session and earn a minimum of 70%.
- Complete the required worked load for the Lecture and earn a minimum of 70%.
- Earn a minimum of 60% on the Exit Test.

You will earn a grade of **P** if you did not fulfill **any one** of the above requirements.

You will earn a grade of **U** if you earn 50% or less in your lecture class and/or stop attending classes or the Study Sessions.

If a student misses an exam, the final exam grade will be used to replace this grade. For any further missing exams, the grade will be zero.

**There will not be any make-ups**

In addition, at the discretion of the instructor, students may be assessed through various in-class activities such as board work and small group presentations

## Incomplete

The grade of **I** (*Incomplete*) is given in the rare case that a student is **passing** (have an average of 70% or better and have completed at least 75% of the workload) but for some extenuating circumstance is unable to complete the last part (usually the final exam) of the class. ***If you are not passing your class, it is not possible for you to earn an "I"***. Note that you will have one full term (Fall or Winter) to complete the requirements of your Incomplete Contract. If you do not complete your requirements during the specified time, the **I** will automatically change to a grade of **F** on your records. Your instructor and the Chairperson of the Mathematics Department will make the determination as to whether you are eligible for an Incomplete.

## MDC Email Account

Students are **required** to activate and use their MDC email account. The MDC account allows students to receive email from their instructors and get notification/announcements or other pertinent information from the College. **All official electronic communications will be done using your MDC e-mail account.**

### ***Important Dates***

Class begins	W JAN 4
First day to start to accumulate Math Lab hours	W JAN 4
Last day to Withdraw with a Grade of W	W MAR 14
Last day to accumulate Math Lab hours	F APR 20
The Final Exam for this class will be on	
Last day of Final Exams <b>(Do not make any plans to go out of town on or prior to this date)</b>	F APR 27
Holidays MLK DAY S JAN 14, U JAN 15, M JAN 16 PRESIDENTS DAY S FEB 18, U FEB 19, M FEB 20 SPRING RECESS F APR 6, S APR 7, U APR 8	

### **Miami-Dade Learning Outcomes**

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. The learning activities designed in this course will address outcomes 1, 2, 3, 4, and 8.

## MAT0022C

Pre-algebra & Introductory Algebra. Third Edition, by Elayn Martin-Gay

Tentative Schedule (16-Week term)

Week	Section	Topic	Homework	
1	1.2	Place Value, Names for Numbers, and Reading tables	1-45 ODD	
	1.3	Adding and Subtracting Whole Numbers, and Perimeter	1-77 Every Other Odd (E.O.O)	
	1.4	Rounding and Estimating	1-45 ODD	
	1.5	Multiplying Whole Numbers and Area	1-49 ODD, 63-67 ODD	
	1.6	Dividing Whole Numbers	1-93 E.O.O	
2	1.7	Exponents and Order of Operation	1-97 E.O.O	
	9.1	Symbols and Sets of Numbers	1-65 ODD	
	9.2	Properties of Real Numbers	1-69 E.O.O; 71-85 ODD	
	2.1	Introduction to Integers	1-93 E.O.O	
	2.2	Adding Integers	1-63 ODD	
3	2.3	Subtracting Integers	1-67 ODD	
	2.4	Multiplying and Dividing Integers	1-81 ODD	
	<b>Departmental Exam 1</b>			
	2.5	Order of Operations	1-65 odd, 79, 81	
	1.8	Introduction to Variables, Algebraic Expressions, and Equation	1-87 E.O.O	
4	3.1	Simplifying Algebraic Expressions	1-81 E.O.O	
	3.2	Solving Equations	1-93 E.O.O	
	3.3	Solving Linear Equation in One Variable	1-63 ODD	
	3.4	Linear Equations in One Variable and Problem Solving	1-33 ODD	
	4.1	Introduction to Fraction and Mixed Numbers	1-91 E.O.O	
5	4.2	Factors and Simplest Form	1-65 ODD	
	4.3	Multiplying and Dividing Fractions	1-71 ODD	
	4.4	Adding and Subtracting Like Fractions, LCD, and Equivalent Fractions	1-43 ODD; 53-71 ODD	
	4.5	Adding and Subtracting Unlike Fractions	1-79 E.O.O	
	4.7	Operations on Mixed Numbers	1,3,5-67 E.O.O	
<b>Departmental Exam 2</b>				
6	4.8	Solving Equations Containing Fractions	1-25 ALL	
	5.1	Introduction to Decimals	1-79 E.O.O	
	5.2	Adding and Subtracting Decimals	1-81-E.O.O	
	5.3	Multiplying Decimals and Circumference of a Circle	1-67 E.O.O	
	5.4	Dividing Decimals	1-67 ODD	
7	5.5	Fractions, Decimals, and Order of Operations	1-77 E.O.O	
	5.6	Solving Equations Containing Decimals	1-35 E.O.O	
	6.1	Ratios and Proportions	1-45 ODD, 49,51,53	
	6.2	Percents, Decimals, and Fractions	1-71 E.O.O	
	6.3	Solving Percent Problem with Equations	1-45 ODD	
8	6.4	Solving Percent Problem with Proportions	1-45 ODD	
	6.5	Applications of Percent	1-35 ODD	
	6.6	Percent and Problem Solving: Sales Tax, Commission, and Discount	1-37 ODD	
	<b>Departmental Exam 3</b>			
	8.2	Perimeter	1-45 ODD, 69	
9	8.3	Area	1-37 ODD, 48, 49, 50, 52	
	8.4	Linear Measurement	1-71 ODD	
	8.5	Weight and Mass	1-65 ODD	
	8.6	Capacity	1-71 ODD	
	8.7	Temperature and Conversions Between the US and Metric Systems	1-37 ODD, 49-73 E.O.O	
10	9.3	Further Solving Linear Equations	1-51 ODD	
	9.4	Further Problem Solving	1-43 ODD	
	9.5	Formulas and Problem Solving	1-7 ODD, 11-23 ODD,25-33 ODD	
	9.6	Linear Inequalities and Problem Solving	1-29 E.O.O, 31-57 ODD	

Week	Section	Topic	Homework
10	<b>Departmental Exam 4</b>		
	10.1	Exponents	1-103 E.O.O
11	10.2	Negative Exponents and Scientific Notation	1-69 E.O.O, 73-93 E.O.O.; 97-103 ODD
	10.3	Introduction to Polynomials	1-17 ODD; 27-39 E.O.O; 43-61 ODD
	10.4	Adding and Subtracting Polynomials	1-53 ODD
	10.5	Multiplying Polynomials	1-73 ODD
	10.6	Special Products	1-67 ODD
12	Integrated Review-Exponents and Operations on Polynomials		
	10.7	Dividing Polynomials by a Monomial	1-11 odd
	11.1	The Greatest Common Factor	3-67 ODD
	11.2	Factoring Trinomials of the form $x^2 + bx + c$	1-65 ODD
	11.3	Factoring Trinomials of the form $ax^2 + bx + c$	1-71 ODD
13	11.5	Factor Perfect Square Trinomials and Difference of Two Squares	1-77 ODD
	Integrated Review		
	<b>Departmental Exam 5</b>		
	11.6	Solving Quadratic Equations by Factoring	1-67 ODD
	12.1	Simplifying Rational Expressions	1-63 ODD
14	12.2	Multiplying and Dividing Rational Expressions	1-41 ODD
	12.3	Adding and Subtracting Rational Expression w/ same denominators	1-9 ODD, 15-19 ODD, 35-39 ODD
	12.4	Adding and Subtracting Rational Expression w/ Different Denominators (Monomials only)	1-5, 19, 25, 29, 35
	13.1	Rectangular Coordinate System	1-17 ODD, 21-39 ODD
	13.2	Graphing Linear Equations	1-31 ODD
15	13.3	Intercepts	1-43 ODD
	13.4	Slope and Rate of Change	1-51 ODD
	15.1	Introduction to Radicals (Square Root only)	1-19 ODD, 51-59 ODD
	15.2	Simplifying Radicals (Square Root only)	1-55 ODD
	<b>Departmental Exam 6</b>		
16	15.3 A,B	Adding and Subtracting Radicals (Square Root only)	1-35 ODD
	15.4 A, C	Multiplying and Dividing Radicals	1-45 ODD, 49-53
	15.6	Radical Equations and Problem Solving	1-29 ODD
Review Final exam			
Final Week	<b>Departmental Final exam</b>		