MIAMI DADE COLLEGE, NORTH CAMPUS  
COURSE SYLLABUS  
MAT 0028 – DEVELOPMENTAL MATHEMATICS II  
SPRING 2014-2; ROOM 3222

Reference Number: 844661  
Instructor: MIGUEL A. MONTAÑEZ  
Office: 7335 (Building 7, 3rd Floor)  
Telephone: 305-237-1288  
E-mail: mmontane@mdc.edu  
Web Page: http://faculty.mdc.edu/mmontane

Office Hours:  
Monday, Wednesday, Friday 7:10 – 7:50 a.m.  
Tuesday, Thursday 8:00 – 11:00 a.m.  
Monday, Wednesday 1:15 – 2:50 p.m.

Course Description: This course introduces students to the basic concepts of algebra. Students will simplify or perform operations on signed numbers, radicals, polynomials, and expressions containing exponents; factor polynomials; solve and graph linear equations and inequalities in one variable; graph linear equations in two variables; solve related applications. Placement test scores or referrals determine admission. This course does not satisfy college level mathematics requirements for graduation. (6 contact hours lecture/lab) MAT 0028 is an institutional credit course that may not be used to satisfy graduation requirements. It may be repeated.

Prerequisite: Appropriate placement score.

Subsequent Course: AA degree-seeking students: Upon successful completion of MAT0028, you should register for MAT1033.

Textbook: Introductory & Intermediate Algebra, 5th Ed. by Lial, Hornsby, and Mcginnis. You may use myMathLab as your primary textbook source. Students may use the Computer Courtyard located in the library to use these additional resources.

Calculators: The use of any kind of calculator, cell phone or electronic device is not permitted.

Assistance: You can obtain assistance for mathematics classes in the Mathematics Laboratory, room 2222. Web site: https://www.mdc.edu/north/math/mathcenter.asp. There, you will find course-related textbooks, review sheets and tutors that can help you to successfully complete this course. The Math Lab is open these hours: MTWR 8:00 a.m. - 8:45 p.m., F 8:00 a.m. - 4:45 p.m., and Saturday 9:00 a.m. – 3:45 p.m.

Classroom Etiquette: Please refrain from bringing food or drinks into any classroom or lab. Please turn off any cellular phones and set pagers to "vibrate". You are expected to arrive on time to class, depart when the class has concluded, and treat others respectfully.
Cellular Phones

MOBILE PHONES MUST BE TURNED OFF! The vibrate mode is not considered turned off. If a cell phone goes off, a quiz will be given on the same day or during the following class (depending on time left). If a cell phone goes off during an exam, the student may have to leave the classroom and all unanswered questions will be marked wrong.

Problems with Instructor

If you are having a problem with your mathematics instructor, please see that instructor during 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 office hours you cannot resolve the problem, then you need to visit the chairperson, Dr. Vincent Bates (office 7345) as the next step.

Withdrawal

If you feel that you will be unable to complete the requirements for passing a class, it is important that you drop the class by the college's "drop date" as established by the registrar's office. You should speak to your instructor prior to making the decision to drop. Remember that it is your responsibility to drop a class, not the instructor's. If circumstances such as illness, accident, change in employment situation, etc., prevent you from continuing to attend your class BEFORE the drop date, speak to your instructor and see the Dean of Students for your options regarding an appeal. If such a situation occurs AFTER the drop date, you should contact the instructor for information as to how you can complete the requirements for passing the course.

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. If your name does not appear on your instructor's class roll by the first day of the mini-term as being registered and having paid for the class, you will not receive a grade for this course, and you will have to retake it next term, regardless of whether you continue to sit in on the class.

Grading

Tests. In this class, you will have:

- Four (4) unit exams.
- Assigned homework and projects.
- In-class quizzes at the discretion of instructor.
- A departmental final exam, which is cumulative and must be taken during final exam week on the date and time designated by the registrar's office.

Homework. Homework is assigned each day in class. It is strongly recommended that you do all the suggested problems in each section. Also, in preparation for the tests, it is recommended that you do the Chapter Reviews and Tests located at the end of each chapter.

The final exam must be taken during Final Exam Week on the date and time scheduled by the Office of the Registrar. You MAY NOT take the final exam early!

Grading Scale

There are three possible grades in this course, ‘S’, ‘P’, and ‘U’.

- A grade of ‘S’ means Satisfactory, and promotes the student to the next course, MAT 1033.
- A grade of ‘P’ means Progress, and student must enroll in MAT0028 or MAT0022C.
- A grade of ‘U’ means Unsatisfactory, and student must enroll in MAT0028 or MAT0022C.
These grades, ‘S’, ‘P’, and ‘U’, will be awarded based on the following requirements.

**S – Satisfactory:** To pass the course with an ‘S’ – **ALL of the following conditions must be met:** (1) Satisfactory attendance in the course; (2) Maintained a minimum of 70% average in the course; and (3) Completed at least 90% of the required 48 hours at math center time, time on task on MyMathLab website outside of class or good grades on tests at the teacher’s discretion, and with documentation of extreme circumstances for any missed time.

**P – Progress:** To pass the course with a ‘P’ – **the following conditions must be met:** (1) Satisfactory attendance in the course; (2) Maintained a minimum of 60% average in the course; (3) Completed at least 60% of the required 48 hours at math center time, time on task on MyMathLab website outside of class or good grades on tests at the teacher’s discretion and with documentation of extreme circumstances for any missed time; and (4) Unsuccessful in meeting the standards for a grade of ‘S’.

**U – Unsatisfactory:** Student did not meet requirements for ‘S’ or ‘P’ and must repeat the course. Any student who stops showing up and fails to withdraw from the course will get a grade of ‘U’. **This ‘U’ will adversely affect your GPA so be careful!**

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Exams</td>
<td>500</td>
<td>50%</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>150</td>
<td>15%</td>
</tr>
<tr>
<td>Departmental Final Exam</td>
<td>350</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Incomplete.** The grade of I (Incomplete) is given in the rare case that a student is PASSING a class but for some extenuating circumstance is unable to complete the last part (usually the final exam) of the class.

**Test Administration**

You **MAY NOT leave the room once you have begun taking an exam.** If a student leaves the room during an exam, test will be collected and graded as a completed exam. The test will not be returned to the student for completion when they return to the room.

**Instructor Drops**

Approximately 6 weeks into the term, your professor will purge his class roll of non-attending students. This is a college requirement. No-shows or students with three (3) consecutive unexcused absences will be dropped from the course. This may jeopardize your full time, scholarship, or financial aid status. You are advised not to count on this process if you wish to drop a course. It is the student’s responsibility to drop a course before the drop deadline if s/he wishes to receive a grade of W.

**Office Hours**

Your professor urges you to avail yourself of his 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 the office **prepared with questions.**

**Attendance**

The number one key to educational success is to attend class. Class attendance will be recorded daily. Students are responsible for any work missed when absent. Since this is an accelerated course, frequent absences will impact your grade. You should make it an effort to be in class, and **on time. LATENESS IS RUDE AND DISRUPTIVE.**
The MDC Students’ Rights and Responsibilities Handbook describes students’ appropriate and inappropriate behaviors, along with their consequences. As we are all adults in this classroom, I do not expect this to be an issue. 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.

Cheating

Any student found cheating, will receive an F for the course. If the student subsequently withdraws from the course, your professor will issue forms to have the W changed to an F on the student’s transcript.

### IMPORTANT DATES

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes begin</td>
<td>T Jan 6</td>
</tr>
<tr>
<td>Last day to drop with refund</td>
<td>M Jan 12</td>
</tr>
<tr>
<td>Last day for drop with W</td>
<td></td>
</tr>
<tr>
<td>Last Day of Classes</td>
<td></td>
</tr>
<tr>
<td>Holidays or days there are no classes and</td>
<td>S Jan 17;</td>
</tr>
<tr>
<td>the Math Lab is closed</td>
<td>U Jan 18;</td>
</tr>
<tr>
<td></td>
<td>M Jan 19</td>
</tr>
<tr>
<td></td>
<td>S Feb 14;</td>
</tr>
<tr>
<td></td>
<td>U Feb 15;</td>
</tr>
<tr>
<td></td>
<td>M Feb 16</td>
</tr>
<tr>
<td></td>
<td>F Mar 6</td>
</tr>
<tr>
<td></td>
<td>F Apr 3;</td>
</tr>
<tr>
<td></td>
<td>S Apr 4;</td>
</tr>
<tr>
<td></td>
<td>U Apr 5</td>
</tr>
</tbody>
</table>

**Students are encouraged to approach the instructor regarding any and all conditions that may affect their equal opportunity to learn.**
Course Competencies.

At the completion of this course, a student will be able to:

- Simplify numerical expressions using the rule for order of operations.
- Add, subtract, multiply, and divide real numbers.
- Comparing signed numbers using $<$, $>$, $=$, $\geq$, or $\leq$.
- Recognize the commutative, associative, identity, inverse, and distributive properties of real numbers.
- Determine the absolute values of signed numbers.
- Add and subtract absolute values.
- Combine like terms.
- Solve first-degree equations including those that have fractional and decimal coefficients. (These should include linear equations that have “no solutions” – contradictions or have “all real numbers as solutions” – identities)
- Solve for variables that are used in elementary formulas.
- Solve elementary word problems. (Including: number problems, geometry problems, and proportion problems.)
- Solve first-degree inequalities and graph each solution set.
- Writing the solution set for Inequalities using Interval Notation.
- Graphing and Applications.
- Graphing Linear Equations.
- Determining the intercepts of a linear equation.
- Identify the slope of a line from slope formula, graph, and equation.
- Use the elementary properties of exponents to simplify exponential expressions.
- Conversion of numbers to Scientific Notation and conversion of Scientific Notation to decimal form.
- Multiply and divide numbers that are in scientific notation.
- Add, subtract, multiply, and divide monomials.
- Add, subtract, and multiply polynomials.
- Division of polynomials by monomials.
- Factor polynomial expressions by taking out the greatest common factor.
- Factor by grouping.
- Factor trinomials.
- Factor the difference of two squares.
- Factor the sum and difference of two cubes.
- Solve quadratic equations by factoring.
- Solve applications problems involving geometry (area with algebraic expressions & the Pythagorean Theorem).
- Reduce rational expressions involving polynomials.
- Multiply and divide rational expressions.
- Add and subtract rational expressions with monomial denominators.
- Simplify basic radical expressions.
- Multiply and simplify radical expressions.
- Rationalize the denominator monomials only.
- Add or subtract simplified radical expressions.
- Convert units of measurements across measurement systems. (Topic will be available in MyMathLab to students)
Tentative Course Outline (2 class sessions/week):

<table>
<thead>
<tr>
<th>Week</th>
<th>Section</th>
<th>Week</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Course Orientation / 1.1, 1.2, 1.4</td>
<td>5</td>
<td>5.5, 5.6, 5.8</td>
</tr>
<tr>
<td></td>
<td>1.5 - 1.8, 2.1</td>
<td></td>
<td>6.1 - 6.3, Test #3 (Sections 3.1 - 3.4, 5.1 - 5.6, 5.8)</td>
</tr>
<tr>
<td>2</td>
<td>2.2 - 2.4</td>
<td>6</td>
<td>6.4 - 6.6</td>
</tr>
<tr>
<td></td>
<td>2.5, Test #1 (Sections 1.1 - 1.8)</td>
<td></td>
<td>6.7 - 6.8, 7.1</td>
</tr>
<tr>
<td>3</td>
<td>2.6, 2.7, 3.1</td>
<td>7</td>
<td>7.2, Test #4 (Sections 6.1 - 6.8)</td>
</tr>
<tr>
<td></td>
<td>3.2, Test #2 (Sections 2.1 - 2.7)</td>
<td></td>
<td>7.2, 9.1, 9.3, 9.4, 9.5</td>
</tr>
<tr>
<td>4</td>
<td>3.3, 3.4, 5.1</td>
<td>8</td>
<td>Final Review</td>
</tr>
<tr>
<td></td>
<td>5.2 - 5.4</td>
<td></td>
<td>Final Exam</td>
</tr>
</tbody>
</table>

This schedule can be changed with written notice.
MIAMI-DADE COLLEGE LEARNING OUTCOMES

Purpose: Through the academic disciplines and co-curricular activities, General Education provides multiple, varied, and intentional learning experiences to facilitate the acquisition of fundamental knowledge and skills and the development of attitudes that foster effective citizenship and life-long learning.

As graduates of Miami Dade College, students will be able to:

1. Communicate effectively using listening, speaking, reading, and writing skills. Professor will address this outcome through all assessments described in the syllabus.
2. Use quantitative analytical skills to evaluate and process numerical data. In this course students will need to read and identify data from graphs and charts. Students will also learn to develop quantitative skills to interpret data from graphs. Also, students will solve algebraic equations and inequalities and manipulate data through unit analysis.
3. Solve problems using critical and creative thinking and scientific reasoning. In the process of solving mathematical problems, students will need to use critical thinking skills to interpret solutions. Creativity in solving problems is constantly encouraged in this course and viewed as an important skill in mathematics.
4. Formulate strategies to locate, evaluate, and apply information. In this course students will often need to solve real-life word problems which apply the mathematical concepts presented. Students will work to solve these problems and identify relevant information in the problems in order to be able to solve them.
5. Demonstrate knowledge of diverse cultures, including global and historical perspectives. In this course, whenever possible, students will be introduced to the use of mathematics through diverse cultures as well as historical notes on the mathematical concepts you learn.
6. Create strategies that can be used to fulfill personal, civic, and social responsibilities. This outcome is not reinforced in this course.
7. Demonstrate knowledge of ethical thinking and its application to issues in society. This outcome is not reinforced in this course.
8. Use computer and emerging technologies effectively. In this course students will be frequently informed about their progress in the course via email.
9. Demonstrate an appreciation for aesthetics and creative activities. This outcome is not reinforced in this course.
10. Describe how natural systems function and recognize the impact of humans on the environment. This outcome is not reinforced in this course.

In this course, the following learning outcomes will be assessed through homework, quizzes, and tests:

1. Use quantitative analytical skills to evaluate and process numerical data.
2. Solve problems using critical and creative thinking and scientific reasoning.
3. Use computer and emerging technologies effectively.
MyMathLab is an interactive website where you can:

- Self-test to improve your math skills.
- Study more efficiently. Create personalized study plans with exercises that match your book.
- Get help when you need it. Includes multimedia learning aids like videos and animations.
- Talk to a live tutor via a toll free number.

What do I need to get started?

You will need the following materials to register for your online course materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Required</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Valid Email Address</td>
<td>Don't have it yet?</td>
<td>Contact your school's technology center or set up a free account on a web site that offers this service (for example, through Hotmail or Yahoo).</td>
</tr>
<tr>
<td>Course ID</td>
<td>Don't have it yet?</td>
<td>Contact your instructor to get it. The Course ID is unique for each course.</td>
</tr>
</tbody>
</table>
| Student Access Code | Don't have it yet? | If your new textbook was not bundled with a Student Access Code, you need to:  

- Go to your campus bookstore to buy the standalone Student Access Kit (kit contains access code card and instructions) for your textbook
- Purchase online access now using a credit card. |

What steps do I take next?

Take the access card that was packaged with the text, review the grid above one more time and then follow steps 1 - 8 below.

1) Go to www.coursecompass.com and click on Register.
2) Enter your six-word student access code, school zip code (33132) and country.
3) Enter the Course ID: montanez27669
4) Fill in the requested information, and then create your unique Login Name and Password. It’s recommended that you use your email address as your login name.
5) Return to www.coursecompass.com and log in. At the Welcome page, click on the course you are taking.
6) The first time you enter the site from your computer and anytime you use a new computer, click on the software Installation Wizard on the Announcements page or on the navigational buttons on the bottom left side of the screen. This wizard will walk you through the installation of the software you will need to use the MyMathLab resources. Note: the software may already be installed in the school lab. Check with your lab administrator.
7) Technical problems? Call Tech Support at 800-677-6337, Monday – Friday 9am – 6pm EST.
8) Additional help can be found on the Announcements page by clicking on Student Help or viewing the tip sheets.

Don’t forget, MyMathLab includes FREE access to the Tutor Center.  
Toll free 888-777-0463, Sunday to Thursday 5pm – 12am EST.