



## Syllabus

### MAT0020 College Preparatory Math (Self-paced Modular Course)

**Term:** SPRING 2009-2

**Reference #:**

**Instructor's Name:**

**E-mail:**

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

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

**Office Hours:**

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

**MTWR** 8:00 AM - 9:00 PM

**F** 8:00 AM - 4:00 PM

**S** 8:00 AM - 4:00 PM.

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

This course integrates the topics of arithmetic and beginning algebra. In this course you will add, subtract, multiply, and divide whole numbers, fractions, decimals, and solve related applications; compute percents and solve related applications; find the perimeter and area of plane figures and volumes of solids; perform operations on signed numbers; solve linear equations and inequalities in one variable; perform operations on and factor polynomials; evaluate and simplify expressions with integer exponents; simplify radicals; graph linear equations; simplify algebraic fractions; and solve applications of these topics.

AA degree-seeking students: Upon successful completion of MAT0020 (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

**This is a self-paced course. You must be mindful of the suggested time line indicated at the end of this syllabus. You will have to have completed successfully the requirements at the end of the 16 weeks to pass the course.**

Credits: 5

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

Appropriate placement score into MAT0002

#### ***Textbook***

Course uses My Math Lab ([www.coursecompass.com](http://www.coursecompass.com)), therefore access code is **mandatory**. Access code may be purchased at the college book store or online. *Integrated Arithmetic and Basic Algebra*, 4<sup>th</sup> Ed, by B. Jordan & W. Palow; Pub. Addison-Wesley was used to design the course, but the textbook is not required (you will have access to an electronic copy of the textbook through the coursecompass.com website).

#### ***Assistance***

You can obtain assistance for mathematics classes in the Mathematics Laboratory, room 2223. There, you will find course-related videotapes and computer software, and tutors that can help you to successfully complete this course.

The Math Lab is open during these hours:

**MTWR** 8:00 AM - 9:00 PM

**F** 8:00 AM - 4:00 PM

**S** 8:00 AM-4:00 PM.

You do not need an appointment to get assistance from the tutors on the Floor, but the tutors on the Floor must help all the students and may have to take turns; they cannot work with one student for a prolonged period of time.

One-to-one tutoring (1 hour long session) is available by appointment only. Please visit the Math Lab and speak to any of the Supervisors to schedule an appointment.

If you have a problem with the Math Lab, please contact any of the 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 chairperson, Dr. Alicia Giovinazzo (office 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 community, 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 have informed your instructor that you must leave early. There may be a time when you are unavoidably late for class. In that case, please come into the room quietly (through the back door if there is one) and choose a 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.

It is 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. You are encouraged to ask questions.

Please refrain from bringing food or drinks into any classroom or the Math lab.

Beepers and Cellular telephones must be turned off. ***The vibrate mode is not considered turned off.*** Absolutely no text messaging or instant messaging is allowed in the classroom. The instructor may ask you to leave the classroom for the day if you are caught.

### ***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. Alicia Giovinazzo (office 1540) as the next step.

### ***Professional Student Behavior***

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).

### ***Office Hours***

Your professor urges you to avail yourself of his/hers 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.

## ***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. ***Frequent absences may cause you to be dropped from the course.*** You should make an effort to 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 final exam if you are not in your instructor's class roster* so make sure to resolve any issues prior to the final exam date.

## ***Withdrawal***

If you feel that you will be unable to complete the requirements for passing this 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 extenuating 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 first and if needed, to the Chairperson, Dr. Alicia Giovinazzo (office 1540) to assess your options. 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.

## ***Study Sessions***

All college preparatory mathematics courses have required study sessions and laboratory hours. The study sessions for this course 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, and to work on course-related assignments.

**You are required to attend your study session each week.** One of the requirements for receiving an S in this class is to earn at least a grade of 70% in your study session. **Your Study Session instructor will send quarterly updates of your grades to your lecture 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 instructor you cannot resolve the problem, then please contact Arcides Acosta, Maliya Beylin, Jose De Paz, or Verdieu Lucas at their offices in room 2223.

## ***Lab Hours***

**You are required to complete 30 hours during the term in the mathematics laboratory (Room 2223).** We recommend that you have completed a minimum of 15 hours by the midterm date, as you *will be credited up to a maximum of three hours on any given day.* You *may not* complete Lab hours during times when you are scheduled to be in class or in your Study Session. If you do so, you may lose every hour that you have accumulated to that point. **You will need to check in and out of the Math Lab each time** you are there to earn the credit for the College Prep lab hour requirement.

## ***Grading***

In this class, you will have

- 8 Online Benchmark Exams
- Online homework Assignments
- An Offline Departmental Mid-Term Exam
- An Offline State Final Exit Exam (CPET), which is cumulative.

In this as in all College Preparatory courses, you will earn an **S** (Satisfactory) which is the required passing grade. **P** (Progress) or **U** (Unsatisfactory) are not passing grades.

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

- Complete a minimum of 30 hours in the Math Lab (Room 2223)
- Attend required Study Sessions and complete all assignments. You must earn at least 70% combined score in your study session
- Attend required lecture classes and complete all assignments, Study Skills Post-test and Benchmarks. You must earn at least 70% combined score in your class lecture.
- Earn a minimum of 60% on the Final Exam (State Exit Test)

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

You will earn a grade of **U** if you earn less than 35% in your lecture class, or stop attending lecture classes or the Study Sessions. Note that a grade of **U** counts against your GPA because it is calculated as an F.

Break down of Lecture Class Grades:

Best 7 out of 8 Benchmarks	55%
Midterm	15%
Homework	<u>30%</u>
Total	100%

### **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. ***If you are not passing your class, it is not possible for your instructor to give you 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 in that time, the **I** generally will automatically change to an **F** on your records. The instructor makes 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

### ***Important Dates***

Class begins	
Weekdays and Evening	T Jan 5
Weekend (Saturday and Sunday)	S Jan 9
First day that Math Lab hours can be accumulated in College Prep. Courses (MAT0002, MAT00020, MAT00024)	T Jan 5
Last day to Withdraw with a Grade of W	W Mar 7
Last day that Math Lab hours can be accumulated in College Prep. Courses (MAT0002, MAT00020, MAT00024)	F Apr 23
Last day of Final Exams	F Apr 30
Holidays	M. L. K. Day: S Jan 16, U Jan 17, M Jan 18
	Presidents Day: S Feb 13, U Feb 14, M Feb 15
	Easter: F Apr 2, S Apr 2, U Apr 3

## 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.

# MAT0020

## Syllabus, Assignments, and Benchmarks Modular Approach (16 Week term)

Week	Assignments	Completed
<b>1</b>	Evaluation for Benchmark 1 ( <i>request activation to instructor</i> )	
	RV1 Whole Numbers	
	R1: Reading & Writing Numerals	
	R2: Addition & Subtraction of Whole Numbers	
	R3: Multiplication of Whole Numbers	
	R4: Division of Whole Numbers	
	RV2 Fractions and Decimals	
	R5: Introduction of Fractions	
<b>2</b>	R6: Addition & Subtraction of Decimal Numbers	
	R7: Multiplication and Division of Decimal Numbers	
	R8: Linear Measurements	
	<b>Benchmark 1 (<i>request activation to instructor</i>)</b>	
	<b>Study Skills:</b> Time Management Post-Test	
<b>3</b>	Evaluation for Benchmark 2 ( <i>request activation to instructor</i> )	
	V1.1 Variables, Exponents & Order of Operations I	
	1.1 Variables, Exponents and Order of Operations I	
	V1.2 Perimeters	
	1.2 Perimeters	
	V1.3 Areas	
	1.3 Areas	
	V1.4 Volumes and Surface Areas	
	1.4 Volumes and Surface Areas	
	<b>Study Skills:</b> Effective Note Taking Post-Test	
	V1.5 Introduction to Integers	
	1.5 Introduction to Integers and Absolute Value	
	V1.6 Addition of Integers	
	1.6 Addition of Integers & Properties of Addition	
<b>4</b>	V1.7 Subtracting Integers	
	1.7 Subtraction of Integers & Combining Like-Terms	
	V2.1 Multiplication of Integers (MA)	
	2.1 Multiplication of Integers & Exponents	
	V2.5 Division of Integers	
	2.5 Division of Integers & Order of Operations II	
	<b>Benchmark 2 (<i>request activation to instructor</i>)</b>	
	<b>Study Skills:</b> Coping with Stress and Anxiety Post-Test	
	Evaluation for Benchmark 3 ( <i>request activation to instructor</i> )	
	V1.8 Polynomials	
<b>5</b>	1.8 Polynomials	
	V2.2 Law of Exponents	

Week	Assignments	Completed
5	2.2 Multiplication Law of Exponents	
	V2.3 Products of Polynomials	
	2.3 Product of Polynomials	
	V2.4 Special Products	
	2.4 Special Products	
	V2.6 Quotient Rule & Integer Exponents	
	<b>Study Skills:</b> Studying Smarter Post-Test	
6	2.6 Quotient Rule and Integer Exponents	
	V2.7 Quotient Rule & Combined Law of Exponents	
	2.7 Quotient Rule & Combined Law of Exponents	
	V2.8 Division of Polynomials by Monomials	
	2.8 Division of Polynomials by Monomials	
	V2.9 Scientific Notation	
	2.9 Scientific Notation	
	<b>Benchmark 3 (request activation to instructor)</b>	
	<b>Study Skills:</b> Preparing for and Taking Exams Post-Test	
	Evaluation for Benchmark 4 ( <i>request activation to instructor</i> )	
	V3.1 Addition Property of Equality	
	3.1 Addition Property of Equality	
	V3.2 Multiplication Property of Equality	
3.2 Multiplication Property of Multiplication		
7	V3.3 Combining Properties in Solving Equations	
	3.3 Combining Properties: Solving Linear Equations	
	V3.4 Using & Solving Formulas	
	3.4 Using & Solving Formulas	
	V3.5 Solving & Graphing Inequalities	
	3.5 Solving & Graphing Linear Inequalities	
	V3.6 General, Consecutive Integers & Distance Problems	
	3.6 General, Consecutive Integer & Distance Problems	
	V3.8 Geometry Problems	
3.8 Geometry Problems		
8	V4.1 Reading Graphs & the Cartesian Coordinate System	
	4.1 Reading Graphs & the Cartesian Coordinate System	
	V4.2 Graphing Linear Equations with two Variables	
	4.2 Graphing Linear Equations with Two Variables	
	V4.3 Graphing Linear Equations Using Intercepts	
	4.3 Graphing Linear Equations Using Intercepts	
	<b>Benchmark 4: Midterm Exam (Offline)</b>	
Evaluation for Benchmark 5 ( <i>request activation to instructor</i> )		
9	V5.1 Greatest Common Factor (GCF)	
	5.1 Greatest Common Factor (GCF)	
	V5.2 Factoring Polynomials with Common Factors	
	5.2 Factoring Polynomials with Common Factors	
	V5.3 Factoring Trinomials (Leading Coefficient 1) (MA)	

Week	Assignments	Completed
9	5.3 Factoring Trinomials (Leading Coefficient 1)	
	V5.4 Factoring General Trinomials	
	5.4 Factoring General Trinomials	
10	V5.5 Factoring Binomials	
	5.5 Factoring Binomials	
	V5.6 Factoring Perfect Squares	
	5.6 Factoring Perfect Squares	
	V5.7 Mixed Factoring	
	5.7 Mixed Factoring	
	V5.8 Solving Quadratic Equations by Factoring	
	5.8 Solving Quadratic Equations by Factoring	
	<b>Benchmark 5 (request activation to instructor)</b>	
11	Evaluation for Benchmark 6 (request activation to instructor)	
	V6.1 Fractions & Decimals	
	6.1 Fractions & Decimals	
	V6.2 Reducing Rational Expressions	
	6.2 Reducing Rational Expressions	
	V6.3 Further Reduction of Rational Expressions	
	6.3 Further Reduction of Rational Expressions	
	V6.4 Multiplication of Rational Expressions	
	6.4 Multiplication of Rational Expressions	
	V6.5 Further Multiplication of Rational Expressions	
	6.5 Further Multiplication of Rational Expressions	
	V6.6 Division of Rational Expressions	
	6.6 Division of Rational Expressions	
12	V6.7 Division of Polynomials	
	6.7 Division of Polynomials	
	V7.1 Addition of Rational Expressions w/like Denominator	
	7.1 Addition of Rational Expressions w/like Denominator	
	V7.2 LCM & Equivalent Fractions	
	7.2 LCM & Equivalent Fractions	
	V7.3 LCD of Fractions	
	7.3 LCD of Fractions	
	V7.4 Addition of Fraction w/unlike Denominators	
	7.4 Addition of Fraction w/unlike Denominators	
	V7.6 Solving Equations containing Rational Numbers	
7.6 Solving Equations containing Rational Numbers		
<b>Benchmark 6 (request activation to instructor)</b>		
13	Evaluation for Benchmark 7 (request activation to instructor)	
	V8.1 Ratios & Rates	
	8.1 Ratios & Rates	
	V8.2 Proportions	
	8.2 Proportions	
	V8.3 Percent	
	8.3 Percent	

Week	Assignments	Completed
14	V8.4 Applications of Percent	
	8.4 Applications of Percent	
	<b>Benchmark 7 (request activation to instructor)</b>	
	Evaluation for Benchmark 8 (request activation to instructor)	
	V10.1 Defining & Finding Roots Part I	
	V10.1 Defining & Finding Roots Part II	
	10.1 Defining & Finding Roots	
	V10.2 Simplifying Radicals	
15	10.2 Simplifying Radicals	
	V10.3 Product and Quotient of Radicals Part I	
	V10.3 Product and Quotient of Radicals Part II	
	10.3 Product and Quotient of Radicals	
	V10.4 Mixed Operations with Radicals	
	10.4 Mixed Operations with Radicals	
	<b>Benchmark 8 (request activation to instructor)</b>	
Final Review (offline)		
16	<b>Final Exam -- State Exit Test (CPET) -- Offline</b>	