

**COLLEGE ALGEBRA – MAC 1105 Sections U12, U13  
SPRING 2010**

**Meeting times:** U12 M-W 6:25-7:40  
U13 M-W 7:50-9:05

**Instructor:** Margarita Leon

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**Office hours:** M-W 9:05-10:05, by appointment, PC 211

**Textbook:** Algebra & Trigonometry by M. Sullivan custom edition for FIU packaged with MyMathLab access code (or 8<sup>th</sup> edition + MyMathLab access code, or MyMathlab Access Code alone, which contains an electronic version of the textbook)

**Prerequisites:** An adequate score on the placement test

**Course Description:** The focus of this course is on functions and their properties. In particular, properties and graphs of linear, quadratic, rational, exponential and logarithmic functions are discussed. Ways of solving systems of equations and inequalities are introduced at the end of the semester.

**Course Objectives:** After finishing the course students should have a good understanding of the concept of a function, its domain and range. They should be able to graph basic functions and be familiar with their properties. They should be able to perform operations on functions, form composition and find the inverse of some one-to-one functions. They should know and be able to apply properties of logarithms. They should be able to solve exponential and logarithmic equations and systems of equations and inequalities.

**Material to be covered:**

- Chapter R: Sections: 2, 4, 5, 7, 8
- Chapter 1: Sections: 2
- Chapter 2: Sections: 1, 2, 3, 4
- Chapter 3: Sections: 1, 2, 3, 4, 5, 6 and the departmental handout More on Functions
- Chapter 4: Sections: 3, 4 (1 and 5 time permitting)
- Chapter 5: Sections: 2, 3, 4
- Chapter 6: Sections: 1, 2, 3, 4, 5, 6, 7, (8- time permitting).
- Chapter 12: Sections: 1, 6, 7.

**Examinations:** There will be three in-class paper and pencil exams and a comprehensive departmental final exam (2 hours & 30 minutes). Moreover, you will have weekly online homework and online quizzes assigned in MyMathLab.

**Online Assignments:** To access online assignments you must purchase an access code for MyMathlab. You can purchase it together with the textbook at FIU bookstore, or as stand alone item either at the bookstore or at <http://mymathlab.com>. All online assignments will have a due date. Late submissions will not be accepted under any circumstances. If the assignment is due by 11:59pm, then 12:01am is already late. Do not wait until the last moment to complete those assignments since you will not know what problems (technical or not) you might encounter along the way.

**Grading policy:** To get a full credit for a problem you must show your work. An answer alone will get no credit. Your grade will depend only on your performance on tests and online assignments. Each test will count as 20% of the final grade, the final 25% and online assignments 15%. Please note that **if you decide to skip online assignments, you will have to score at least 83% on each test to receive a passing grade (C)**.

Your final grade will be assigned according to the following scale.

<b>A: 93 – 100</b>	<b>B + : 86 – 88</b>	<b>C+: 75 – 78</b>	<b>D +: 60 - 64</b>
<b>A- : 89 – 92</b>	<b>B: 83 – 85</b>	<b>C: 70 – 74</b>	<b>D : 55 - 59</b>
	<b>B-: 79 – 82</b>	<b>C-: 65 – 69</b>	<b>F: 0 - 54</b>

**Make-up Policy:** There will be no make-up tests. If you miss a test due to illness or other emergency and provide documentation supporting your claim, your final exam will count in place of the missed test. There will be no make-ups for online assignments.

**Attendance Policy:** You are expected to attend all classes. It is your responsibility to complete all assignments on time regardless of whether or not you were present in the class. **Five extra credit** bonus points will be added to your

three tests' average if no more than two absences are recorded. Tardiness, after attendance has been taken, will be considered an absence.

**Calculator Policy:** Use of graphing calculators is prohibited in this course. The scientific calculator TI -30XA will be used in some sections of the course.

**Incomplete Grade Policy:** The incomplete grade is given to a student who has substantially completed most of the course work but is unable to finish an exam or other work because of circumstances beyond the student's control. An IN grade cannot be given if it is necessary for the student to repeat the course. An incomplete grade must be made up within two semesters. There is no extension of the two semester deadline. The student must not register again for the course to make up the incomplete. Every incomplete grade must be approved by the Mathematics Department.

**Drop Date:** The last day to drop a course is February, 26

**Academic Misconduct:** Includes (but is not limited to) giving or receiving assistance on a test, quiz, or homework assignment for which such assistance is not permitted, falsifying a document to obtain an excusal from a test, and using unauthorized notes on a test or quiz. A more complete definition of Academic Misconduct is given in the Student Handbook. Penalties for Academic Misconduct range from an F in the course to expulsion from the University.

**Tutoring Services:** The Mathematics Department and the University offers a variety of services, ranging from online videos to free tutoring, designed to help students with their courses. Please visit [http://w3.fiu.edu/math/math\\_help/college\\_algebra.htm](http://w3.fiu.edu/math/math_help/college_algebra.htm) for more details.

**Classroom Etiquette:** To create and preserve a classroom atmosphere that optimizes teaching and learning, students are expected to conduct themselves at all times in a manner that does not disrupt teaching or learning. You are expected to come prepared to the class, be on time and remain in the classroom for the duration of the lecture. Talking, eating, sleeping, checking e-mail, using a phone, reading a newspaper, preparing for another class, packing up early is disruptive to others around you and to the instructor. Though classroom participation is always welcomed, questions and comments must be relevant to the topic at hand. If you have a question or comment, raise your hand to be recognized. Electronic devices such as cell phones, iPods, and computers must be turned off during class. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class.

#### Tentative Daily Class Schedule

Spring 09	Date	Topics
Week - 1	01/04	R.2, R.4
	01/06	R.4, R5
Week – 2	01/11	R.7
	01/13	R.8
Week – 3	01/18	Martin Luther King Holiday – <b>no class</b>
	01/20	2.1, 2.2,
Week – 4	01/25	2.2, 1.2
	01/27	2.3
Week – 5	02/01	2.4, 3.1
	02/03	<b>Test # 1 (Chapter R, 2 and sec 1.2)</b>

Week - 6	02/08	3.2, 3.3
	02/10	5.4, More on Functions
Week - 7	02/15	3.4, 3.5
	02/17	3.5, 3.6
Week - 8	02/22	4.3
	02/24	4.4, 5.2
Week - 9	03/01	<b>Test #2 (Chapters 3, 4, More on Functions and sec 5.4)</b>
	03/03	5.2, 5.3
Week - 10	03/07	5.3, 6.1
	03/10	6.2
Week - 11	03/15	<b>Spring break</b>
	03/17	<b>Spring break</b>
Week -12	03/22	6.3
	03/24	6.4

Week -13	03/29	6.5, 6.6
	03/31	6.6
Week -14	04/05	6.7 (6.8)
	04/07	<b>Test # 3 (Chapters 5 and 6)</b>
Week -15	04/12	12.1, 12.6
	04/14	12.7, questions on final review.
Week-16	04/19	Final week of the semester – <b>no class</b>
	04/21	Final week of the semester – <b>no class</b>
	04/22	<b>Final Exam, 2:15 – 4:45pm, room TBA</b>

### Suggested Homework Assignment

section	problems
R.2	73-94, 95, 103, 105
R.4	17, 21, 23, 25,29,35,37,39,43, 45,49,55,57,59,67,71,75,79, 84,87,93,95,99
R.5	9,11,13,15, 17,21 25,27,33-38,39, 43,45,51, 53,54,57,59,63,86,91,93,95,96,99,105,107, 109,117, 119,121, 123
R.7	5,8,11,13,15,19,21,23,25,28,31,33,37,41,43,47,49,51,61-71,73,75,76,81,85,87
R.8	7,12,15,17,18,21,23,25,29,31,33,37,41,43,47,48,49,51,53,55-74, 77,81
2.1	11,15,19,24,35,45,47
2.2	11, 21,31,39,40, 41,43, 51-54, + 59,61,63,68 <i>find intercepts only unless covering tests for symmetries</i>
1.2	13, 15, 21, 29, 31, 21, 42, 47, 55, 79, 85, 89
2.3	13, 21,23, 25,27,29, 37,39,41,43,47,49,53,55,57,61,63,64, 67,69,70,77,83,85,89, 93, 103,104,105
2.4	7,9,11,15,21,23,25,27,31
3.1	15,17,19,21,27,31,32,36,40,43,45,47-60,65,68,70,73,75,79,80,81,87,90
3.2	9,10,11,12,13,18,20,25
3.3	11-20, 21,23,25,27,35,36,42,53 <i>29, if covering extrema</i>
5.4	3, 5, 7, 11, 13, 21, 23, 25
3.4	17-38, 41, 42, 43, 47, 49
3.5	7,9,11, 13,19-22,24,25, 29, 35,37,39,44,46,47,51,53,55,65a-e,
3.6	1a-c, 7a-b,11a-b, 18
4.1(optional)	17,18, 19, 37, 39
4.3	17, 27,32,35,41,43,45,47,57, 61,65,81,86
4.4	5,7,9,11,19
4.5(optional)	3- 32 odd
5.2	13,15,17,20,23-28a-d,35,36,39, 41-52( <i>omit oblique asymptotes</i> )
5.3	7,9, 11, 19,20,23, 33, 35,37
6.1	11,17,21,27, 35,41,49, 53-58
6.2	9,11,17,19,23, 33,37,41,42, 57, 61,65
6.3	11,17,18,37,39,45,49, 50,53, 59,63,67,73,79,97,99
6.4	9,11,15,16,21,23,24,25-36, 37, 43, 45, 47, 51,55,59,71,77,83,87,91,97,99,103,107,117
6.5	9,11,13,15,17,25,29,37,41,43,45,47,49,51,55,57,59,61,63,65,69
6.6	6,9,11,15,16,19,21,23,27,29,31,33,39,41,42,49,53,55,59
6.7	3,5,7,11,15,19,39,43,45, 49
6.8(optional)	1,3,5,9,21
12.1	19,25,26,27, 29,30, 57,63,64
12.6	5,7,9,13,15,27,28,29
12.7	11-19,23,25,29,33,37,43,45,47