

Syllabus

College Algebra (MAC 1105) 3 credit Fall 2011

Prerequisite: [Suitable placement score](#)
MAT 1033 or MGF 1106 or MGF 1107

Instructor:	CRN:
Office:	Office Hours:
E-mail Address:	Phone number:
Lecture Time:	Lecture Room:
Scheduled Lab SE350 Time:	MyMathLab Plus Course ID:
Teaching Asst:	Office Hours:
Office:	Email Address:

Description: MAC 1105 is a fast-paced Algebra course designed to prepare students for university level courses using mathematics. Linear and quadratic functions, systems of equations and inequalities, polynomial functions and equations, complex numbers, rational exponents and radicals, exponential and logarithmic functions will all be covered. This is a General Education course that satisfies, in part, the computational General Education requirements .

Objectives, Learning Outcome Goals: The ability to think critically is stressed in this course and students should be able to apply results to real-world problems. Students will be able to:

1. Solve equations and inequalities involving polynomials, radicals, absolute values, and rational expressions.
2. Understand the idea of a function, including its graph, domain, and range, as well as operations on functions, composition of functions, and one-to-one and inverse functions.
3. Evaluate and graph a basic library of functions, including polynomial, absolute value, logarithmic, and exponential functions.
4. Apply basic graphing techniques, including symmetries, asymptotes, and transformations.
5. Utilize polynomial and rational functions to model and solve applications.
6. Understand the properties of logarithmic and exponential functions, and use these properties to model and solve applications.
7. Set up and solve systems of linear equations.

IFP General Education Outcomes:

1. Knowledge in several different disciplines;
2. The ability to think critically;
3. The ability to communicate effectively;
4. An appreciation for how knowledge is discovered, challenged, and transformed as it advances; and
5. An understanding of ethics and ethical behavior.

Information available at <http://www.fau.edu/deanugstudies/NewGeneralEdCurriculum.php>

Software: Students must purchase access to a web-based learning and assessment system called [MyMathLab Plus](#) either at the bookstore or directly through the website. All homework, quizzes and exams will be completed online. Students not registered online by the third week of the semester may be dropped from the course.

Course Website: All information pertaining to College Algebra will be posted on [MyMathLab Plus](#). Students should check for updated information daily. Ignorance of posted information is NOT a valid excuse for missing assignments, quizzes, or exams. Questions should be directed e-mailed to your instructor or, if needed, to algebracoordinator@fau.edu.

Materials:

- Access to the e-book *College Algebra by Trigsted*, Prentice Hall 2nd Ed. (2011), is through MyMathLab Plus. Students need to refer to it regularly.
- Only an approved non-programmable calculator (e.g. the “TI30” models) or the MyMathLab Plus online calculator may be used during testing. Calculators may NOT be shared.
- All lecture meetings require i-Clickers, which can be purchased at the bookstore or online.
- It is strongly recommended that students keep a note book for their lecture notes and MyMathLab Plus homework so that they can readily review their work.
- Topics to be covered are attached.

Lectures:

- Most sections (see schedule) require two 50 minute lecture sessions plus both a 80 minute and a 50 minute laboratory session in SE350 each week.
- The **evening classes** have longer lecture sessions and do not require the use of the SE350 laboratory but will use the same on-line homework assignments but with traditional paper quizzes and four exams given at approximately 3 week intervals.
- The lecture sessions are the main presentation of the course material. i-Clicker responses are used to record attendance. Once the lecture has begun all cellphones and other electronic devices (other than i-Clickers and calculators) must be turned off.

Lab. Sessions:

- A valid FAU student ID card is required for access to the College Algebra Lab. SE350
- The scheduled 80 minute laboratory session in SE350 each week is used for both supervised online homework and testing. These sessions consist of either a 20 minutes quiz followed by an hour of MyMathLab Plus homework OR a 80 minutes exam each week. Exams will be given at approximately 3 week intervals (see the course Calendar/Outline).
- Unless specifically excused**, students are generally required to schedule and attend another hour of supervised homework in SE350 either on Monday, Tuesday or Wednesday (day and time as scheduled the week before).
- Instructors and “Peer Tutors” (PTs) will be available to provide students with personalized help. Students are strongly encouraged to interact with them in order to get individualized, immediate answers to their questions.
- Students are expected to follow the posted rules and regulations in the SE 350 Lab. Chronic violators may be ejected from the lab.

**Students who achieve an “A” average on their quiz, and exam grades in any quarter of the course may be excused from this additional 1 hour lab requirement in the next quarter. If, however, their grade average for that quarter drops below an “A” then they lose this exemption.

Attendance Policy: “Attendance” means arriving on time and staying until dismissed by the instructor or until the required lab hours are completed. Roll will be taken in both lecture and lab sessions. Any student with 4 or more unexcused absences will receive a grade penalty.

MyMathLab Plus Homework:

- First read the text section and complete the reading quiz for that section (with a score of at least 80% - you may take it again!). This is a prerequisite for each homework assignment.
- Homework assignments must be completed by the posted due dates. There will be a 2 % per day grade penalty on homework not completed by the due dates. All homework assignments for a particular week are generally due at 11:59pm the Wednesday of the following week.
- Complete assignments *well before the posted due date*. Lapses in internet access, faulty computers, power outages, or scheduled maintenance outages are NOT valid excuses for late or incomplete assignments.
- List of homework assignments is attached.

Quizzes:

- Weekly quizzes are based on the homework assignments. The first quiz called the “Syllabus Quiz” consists of an acknowledgment form and 20-questions that cover the contents of this syllabus.
- Students must complete the “Syllabus Quiz” with a score of at least 80% before they can work on any other graded assignments.
- Only in exceptional circumstances (supported by documentation) will a make-up quiz be given and this will require the approval of the instructor.
- Every student’s quiz average will be calculated without his/her two lowest quiz grades

Exams:

- All 4 exams count towards the final grade. No exam grade will be dropped.
- No exam grades will be dropped, however, every student will be allowed to take one, and only one, makeup exam. The better of the original exam or the makeup exam grade will be used to compute the student’s four exam average. Makeup exams will be scheduled during the last week of the semester. Students will be notified when they can schedule for the makeup exam.
- Practice exams and review sessions are given prior to each scheduled exam. Check [MyMathLab Plus](#) for time and location.
- Only in exceptional circumstances supported by documentation will a student be allowed to take an exam at a time later than scheduled.

Comprehensive Final Exam:

- A comprehensive final exam will be given on the Thursday, Friday and Saturday of the Final exam week.
- Students must take the final exam to receive a passing grade.
- Students must sign up for a specific time to take the final exam. Students will be notified when they can do so, and are encouraged to do so as early as possible.

Tutoring: For all tutoring resources, visit <http://www.math.fau.edu/MLC>.

Course Grades: Grades will be posted on MyMathLab Plus; check your grades regularly to make sure that they correctly reflect your scores in the course. Any errors to be corrected must be brought to the notice of the instructor, by e-mail, within one week of the posting date.

Final Grade Components and their Weights:

Component	Weight
MyMathLab Plus Homework	10%
Class Attendance/Lab SE350 hrs	10%
Best 6 Quizzes (Best 6)	12%
4 Unit Exams (after make-up)	48%
Final Exam	20%

Grading Scale:

Percentage Score:	90%–100%	85%–89%	80%–84%	76%–79%	70%–74%	60%–69%	0%–59%
Grade:	A	B+	B	C+	C	D	F

Classroom Etiquette : Please refer to the FAU Code of Conduct available at http://www.fau.edu/regulations/chapter4/4.007_Student_Code_of_Conduct.pdf.

Academic Honesty: Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at

http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

Students With Disabilities: In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) and follow all OSD procedures. In Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305). OSD website at <http://www.osd.fau.edu>.

Included course topics are subject to reasonable changes at the discretion of the instructor.

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TABLE OF COVERED CONTENT – SEE ALSO WEEKLY OUTLINE

CHAPTER R CONTENTS	
R.1 Real Numbers	R.4 Polynomials
R.2 The Order of Operations and Algebraic Expressions	R.5 Factoring Polynomials
R.3 The Laws of Exponents; Radicals	R.6 Rational Expressions

CHAPTER ONE CONTENTS	
1.1 Linear Equations	1.6 Other Types of Equations
1.2 Applications of Linear Equations	1.7 Linear Inequalities
1.3 Complex Numbers	1.8 Absolute Value Equations and Inequalities
1.4 Quadratic Equations	1.9 Polynomial and Rational Inequalities
1.5 Applications of Quadratic Equations	

OMIT SECTION 1.9

CHAPTER TWO CONTENTS	
2.1 The Rectangular Coordinate System	2.3 Lines
2.2 Circles	2.4 Parallel and Perpendicular Lines

CHAPTER THREE CONTENTS	
3.1 Relations and Functions	3.4 Transformations of Functions
3.2 Properties of a Function's Graph	3.5 The Algebra of Functions; Composite Functions
3.3 Graphs of Basic Functions; Piecewise Functions	3.6 One-to-One Functions; Inverse Functions

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TABLE OF COVERED CONTENT CONTINUED




























CHAPTER FOUR CONTENTS	
4.1 Quadratic Functions	4.5 The Zeros of Polynomial Functions; The Fundamental Theorem of Algebra
4.2 Applications and Modeling of Quadratic Functions	4.6 Rational Functions and Their Graphs
4.3 The Graphs of Polynomials <small>Go to page 4.3-1 for more</small>	4.7 Variation
4.4 Synthetic Division; The Remainder and Factor Theorems	









































OMIT SECTIONS 4.4 THROUGH 4.7

CHAPTER FIVE CONTENTS	
5.1 Exponential Functions	5.4 Properties of Logarithms
5.2 The Natural Exponential Function	5.5 Exponential and Logarithmic Equations
5.3 Logarithmic Functions	5.6 Applications of Exponential and Logarithmic Functions

CHAPTER SEVEN CONTENTS	
7.1 Systems of Linear Equations in Two Variables	7.4 Partial Fraction Decomposition
7.2 Systems of Linear Equations in Three Variables	7.5 Systems of Nonlinear Equations
7.3 Inconsistent and Dependent Linear Systems in Three Variables	7.6 Systems of Inequalities

OMIT SECTIONS 7.2 THROUGH 7.6

HOMEWORK ASSIGNMENT	DUE DATE
Section R.1 Reading Assessment	 8/31/2011
Section R.2 Reading Assessment	 8/31/2011
Section R.3 Reading Assessment	 8/31/2011
Hwk. R-1	 8/31/2011
Hwk. R-2	 8/31/2011
Hwk. R-3	 8/31/2011
Section R.4 Reading Assessment	 9/7/2011
Section R.5 Reading Assessment	 9/7/2011
Section R.6 Reading Assessment	 9/7/2011
Hwk. R-4	 9/7/2011
Hwk. R-5	 9/7/2011
Hwk. R-6	 9/7/2011
Section 1.1 Reading Assessment	 9/14/2011
Section 1.2 Reading Assessment	 9/14/2011
Hwk. 1-1	 9/14/2011
Hwk. 1-2	 9/14/2011
Section 1.3 Reading Assessment	 9/21/2011
Section 1.4 Reading Assessment	 9/21/2011
Section 1.5 Reading Assessment	 9/21/2011
Hwk. 1-3	 9/21/2011
Hwk. 1-4	 9/21/2011
Hwk. 1-5	 9/21/2011
Section 1.6 Reading Assessment	 9/28/2011
Section 1.7 Reading Assessment	 9/28/2011
Section 1.8 Reading Assessment	 9/28/2011
Hwk. 1-6	 9/28/2011
Hwk. 1-7	 9/28/2011
Hwk. 1-8	9/28/2011

HOMEWORK ASSIGNMENT	DUE DATE
Section 2.1 Reading Assessment	 10/5/2011
Section 2.2 Reading Assessment	 10/5/2011
Section 2.3 Reading Assessment	 10/5/2011
Section 2.4 Reading Assessment	 10/5/2011
Hwk. 2-1	 10/5/2011
Hwk. 2-2	 10/5/2011
Hwk. 2-3	 10/5/2011
Hwk. 2-4	 10/5/2011
Section 3.1 Reading Assessment	 10/12/2011
Section 3.2 Reading Assessment	 10/12/2011
Section 3.3 Reading Assessment	 10/12/2011
Hwk. 3.1	 10/12/2011
Hwk. 3.2	 10/12/2011
Hwk. 3.3	 10/12/2011
Section 3.4 Reading Assessment	 10/19/2011
Section 3.5 Reading Assessment	 10/19/2011
Hwk. 3.4	 10/19/2011
Hwk. 3.5	 10/19/2011
Section 3.6 Reading Assessment	 10/26/2011
Hwk. 3.6	 10/26/2011
Section 4.1 Reading Assessment	 11/2/2011
Section 4.2 Reading Assessment	 11/2/2011
Section 4.3 Reading Assessment	 11/2/2011
Hwk. 4.1	 11/2/2011
Hwk. 4.2	 11/2/2011
Hwk. 4.3	 11/2/2011
Section 5.1 Reading Assessment	 11/9/2011
Section 5.2 Reading Assessment	 11/9/2011
Section 5.3 Reading Assessment	 11/9/2011
Hwk. 5-1	 11/9/2011
Hwk. 5-2	 11/9/2011
Hwk. 5-3	 11/9/2011
Section 5.4 Reading Assessment	 11/16/2011
Section 5.5 Reading Assessment	 11/16/2011
Section 5.6 Reading Assessment	 11/16/2011
Hwk. 5-4	 11/16/2011
Hwk. 5-5	 11/16/2011
Hwk. 5-6	 11/16/2011
Section 7.1 Reading Assessment	 11/27/2011
Hwk. 7.1	 11/27/2011