

Syllabus

Intermediate Algebra (MAT 1033) 3 credits

Prerequisite: Suitable placement score (See <http://www.fau.edu/mathplacement> for details).

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: This course prepares students for MAC 1105, College Algebra. This course does not satisfy the GORDON RULE mathematics graduation requirement but is a necessary prerequisite for GORDON RULE math courses. This course counts as elective credit only.

Objectives: Upon successful completion of this course, you will have the knowledge and skills pertaining to the following topics:

1. Sets;
2. Properties of real numbers;
3. Exponents and radicals;
4. Factoring of polynomial expressions;
5. Algebraic fractions;
6. Linear, quadratic and radical equations and their applications.

Software: *MyMathLab Plus* will be used in the course for graded homework assignments and posting of exam scores. YOU MUST PURCHASE ACCESS TO *MyMathLab Plus*, either at the bookstore or directly through the website www.coursecompass.com. Assigned homework in *MyMathLab Plus* can be completed in any open lab on Boca Raton Campus as well as the math department computer lab in SE271 or you may complete the homework assignments at your home if you install the requisite software in your personal computer. When registering for *MyMathLab Plus*, make sure you register the appropriate Course ID for your section.

Materials: You are not required to purchase a textbook for this course. You will have access to the e-book, *Intermediate Algebra*, by Sullivan & Struve, Prentice Hall, 2nd edition (2010), online through MyMathLab Plus. You may use a scientific calculator for quizzes, exams and final. You may NOT use a graphing calculator (or any calculator which can perform symbolic manipulations), cell phones, or any other electronic devices. Calculators may NOT be shared during exams.

Website: <http://math.fau.edu/web/intermediate/> - All important information pertaining to Intermediate Algebra will be disseminated via the course website. You should check the website daily. (The course homepage will also be accessible through *MyMathLab Plus*.) Ignorance of posted information is NOT a valid excuse for missing assignments or quizzes or exams!

Attendance Policy: A student may have at most 5 unexcused absences. A TOTAL OF 6 OR MORE UNEXCUSED ABSENCES WILL RECEIVE A GRADE OF "F" IN THE COURSE. "Attendance" means arriving on time and staying until dismissed by the instructor. Roll will be taken in lectures.

Tutoring: Tutoring is available in PS 112. Please see the schedule at <http://www.math.fau.edu/MLC> for tutors and hours of operation.

Course Grade: Grading is based on a homework notebook, four exams, as well as a comprehensive final.

MyMathLab Plus Homework	15%
Quizzes	15%
Class Participation	10%
Midterm Exams	40%
Final Exam	20%

Grading Scale: The grading scale will be as follows:

Percentage:	93-100	90-92	87-89	83-86	80-82	75-79	69-74	63-68	57-62	0-56
Grade:	A	A-	B+	B	B-	C+	C	D	D-	F

Exams: A total of **four** 50 minutes written midterm exams will be administered. Each midterm exam will count towards student's final grade and no midterm exam grade will be dropped. **Any grading errors or problems have to be discussed with the instructor within a week of receiving your exam grade. Exams will not be reviewed at the end of the semester.** Students are only allowed a number 2 pencil, eraser, scientific calculator, and valid picture ID during a testing session. **DO NOT BRING CELL PHONES, BOOKS, BOOK BAGS, NOTES, OR ANY OTHER ITEMS TO THE EXAM ROOM!** *Entrance to the exam requires a valid picture identification card:* Only FAU Owl Cards, U.S. Passports, or Florida Driver's Licenses will be accepted!

Comprehensive Final Exam: Final exam time and location TBA. You must take the final exam to receive a passing grade.

Makeup Exams: Makeup exams will be given only under exceptional circumstances. *If you miss an exam, you must provide a written, verifiable excuse, if possible in advance of the scheduled exam.* Approval for a makeup exam must be obtained from your instructor.

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.

CHAPTER R	Real Numbers and Algebraic Expressions	1
	R.2 Sets and Classification of Numbers	8
	R.3 Operations on Signed Numbers; Properties of Real Numbers	19
	R.4 Order of Operations	33
	R.5 Algebraic Expressions	39
CHAPTER 1	Linear Equations and Inequalities	47
	PART I: LINEAR EQUATIONS AND INEQUALITIES IN ONE VARIABLE	48
	1.1 Linear Equations in One Variable	48
	1.2 An Introduction to Problem Solving	58
	1.3 Using Formulas to Solve Problems	73
	1.4 Linear Inequalities in One Variable	81
	<i>Putting the Concepts Together (Sections 1.1–1.4)</i>	92
	PART II: LINEAR EQUATIONS AND INEQUALITIES IN TWO VARIABLES	93
	1.5 Rectangular Coordinates and Graphs of Equations	93
	1.6 Linear Equations in Two Variables	105
CHAPTER 2	Relations, Functions, and More Inequalities	147
	2.1 Relations	148
	2.2 An Introduction to Functions	154
CHAPTER 4	Polynomials and Polynomial Functions	320
	4.1 Adding and Subtracting Polynomials	321
	4.2 Multiplying Polynomials	332
	4.3 Dividing Polynomials; Synthetic Division	341
	<i>Putting the Concepts Together (Sections 4.1–4.3)</i>	352
	4.4 Greatest Common Factor; Factoring by Grouping	353
	4.5 Factoring Trinomials	359
	4.6 Factoring Special Products	371
	4.7 Factoring: A General Strategy	377
CHAPTER 5	Rational Expressions and Rational Functions	411
	5.1 Multiplying and Dividing Rational Expressions	412
	5.2 Adding and Subtracting Rational Expressions	422
	5.3 Complex Rational Expressions	432
CHAPTER 6	Radicals and Rational Exponents	478
	6.1 n th Roots and Rational Exponents	479
	6.2 Simplify Expressions Using the Laws of Exponents	487
	6.3 Simplifying Radical Expressions Using Properties of Radicals	492
	6.4 Adding, Subtracting, and Multiplying Radical Expressions	502
	6.5 Rationalizing Radical Expressions	508

Homework Assignments

Order	Ch.	Assignment Name
1	O	MML orientation
2	R	R2
3	R	R3
4	R	R4
5	R	R5
6	1	1.1
7	1	1.2
8	1	1.3
9	1	1.4
10	1	1.5
11	1	1.6
12	2	2.1
13	2	2.2
14	4	Chapter 4 Readiness
15	4	4.1
16	4	4.2
17	4	4.3
18	4	4.4
19	4	4.5
20	4	4.6
21	4	4.7
22	5	Chapter 5 readiness
23	5	5.1
24	5	5.2
25	5	5.3
26	6	Chapter 6 readiness
27	6	6.1
28	6	6.2
29	6	6.3
30	6	6.4
31	6	6.5