

## Math 91 – Intermediate Algebra Spring 2013 MW

### General Information

<b>Name</b>	Dr. Voldman	<b>Textbook/Author</b>	Intermediate Algebra, 4 <sup>th</sup> , Blitzer
<b>Office</b>	Room 2764	<b>Chapters Covered</b>	4,7-14
<b>Phone</b>	355-6299	<b>Office Hours: MW 7:00-7:30, TTH 2:00-3:30</b>	<b>Credit Units: 5 Time: MW 7:30-10:00 CRN: 20213</b>
<b>E-mail</b>	alex.voldman@imperial.edu	IVC Prerequisite with C or better	Math 80 (Beginning Algebra)

### Grading Scale

<b>90-100%</b>	<b>A</b>	<b>80-89%</b>	<b>B</b>	<b>70-79%</b>	<b>C</b>	<b>60-69%</b>	<b>D</b>	<b>0-59%</b>	<b>F</b>
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### Grade Distribution

<b>Homework</b>	<b>Exams</b>	<b>Class work</b>	<b>Final</b>
<b>700 points</b>	<b>300 points</b>	<b>100 points</b>	<b>200 points</b>

<b>Participation/Class work</b>	<b>5%</b>
<b>Homework</b>	<b>10%</b>
<b>Exams</b>	<b>60%</b>
<b>Final</b>	<b>25%</b>

### General Guidelines

1. Late work (homework, projects, etc) is not accepted	5. Bring your book, ruler to class every day
2. School policy: No food or beverages are allowed in the classroom	6. It is your responsibility to drop before the W deadline
3. Missed assignments are recorded as zeros	7. It is your responsibility to keep notes, syllabus, handouts
4. School policy: No children are allowed in the classroom	

### Course Description:

This one semester course is equivalent to a second year algebra course offered in a full year in high school. Topics covered include the real number system, polynomials, rational expressions, exponential and radical forms, linear and quadratic equations, relations, functions and graphs, systems of equations and logarithmic and exponential functions.

### Course Objectives:

1. Demonstrate an understanding of radical expressions and equations.
2. Demonstrate an ability to solve systems of applications, including systems with three equations and three variables.
3. Demonstrate and understanding of quadratic functions, including graphing and equations.
4. Demonstrate and understanding of functions and relations, including one to one functions.
5. Demonstrate and understanding of logarithmic and exponential functions and their graphs.
6. Classify and graph ellipses, parabolas, and hyperbolas.
7. Demonstrate an understanding of sequences and series and their operations.

### SLO:

Solve quadratic equations by factoring, completing the square, and quadratic formula. (ILO2)

Solve equations involving radicals. (ILO2)

Recognize and graph equations of conic sections. (ILO2)

Solve three by three linear systems by elimination or/and substitution. (ILO2)

Solve an application involving exponential functions. (ILO2, ILO5)

### Attendance and Absences:

If you are 5 minutes late you will be marked absent. Do not make doctor, counseling, or any appointments during class time.

Leaving during lecture will be considered an unexcused absence. If you have to leave anytime during class, other than established break times, you must inform your instructor. After the third unexcused absence, you will be dropped from the class. In other cases, it is your responsibility to drop yourself before the withdrawal deadline. Disruptive and inconsiderate behavior will not be tolerated!

## **Cheating and Plagiarism**

Dishonesty in the classroom is considered a very serious offense. Any form of cheating, turning in work which is not one's own (plagiarism), is grounds for disciplinary action. The consequences of these actions are severe and may include the possibility of expulsion.

**Silence pagers and cell phones.** Use of cell phones in the class room will not be permitted; you should not bring one into the classroom unless the ringer is turned OFF.

## **Exams**

Purpose: To review the material introduced in class and to evaluate your understanding of the material covered in the course. There will be no make up exams given. Zeros will be given for all missed tests.

**Final Exam** (comprehensive)

## **Learning Resources**

1. Me: Office Hours; just walk-in and get help. Appointment hours; you must give at least one day advance notice
2. Tutorial services: Library, Vocational Education Building Room 1701
3. Study Guides: The bookstore has textbooks for sale

**Any student with a documented disability who may need educational accommodations should notify the instructor or DSPS office as soon as possible (DSPS, Room 2117, Health Sciences Building, (760) 355-6312)**

### **Schedule spring 2013 MW**

Week 1

Orientation

Systems of linear equations in two variables

Methods: Graphing, substitution, elimination

Week 2

**Monday-Holiday**

Systems of linear equations in three variables (Elimination)

Week 3

Applications

General functions, one-to-one functions

Graphing functions, domain and range

Applications

Week 4

**Exam I Monday**

Radicals

Radical equations

Week 5

Introduction of complex numbers

Applications of radicals

Week 6

**Holiday-Monday**

Solving quadratic equations by factoring

Solving quadratic equations by completing the square

Week 7

Solving quadratic equations by quadratic formula

Nonlinear equations that are reducible to quadratic forms

Quadratic functions

Week 8

Quadratic functions continued

Applications

**Exam II -Wednesday**

Week 9

Exponential functions

Logarithmic functions

Properties of logarithms

Week 10

Exponential equations

Logarithmic equations

Week 11

Applications of logarithmic functions

Applications of exponential functions

Week 12

Nonlinear functions and graphs

Nonlinear systems of equations

Week 13

The circle

The ellipse

The hyperbola

Week 14

**Exam III-Monday**

Sequences

Series

Week 15

Review

Week 16

Final