MATH 091- Intermediate Algebra

5 Units, Spring 2013
<u>**Section 20227**</u> <u>Meets</u>: Monday and Wednesday from 6:30 pm to 9:00 pm in Room 2725
<u>Instructor</u>: David Rosas
<u>Office</u>: None
<u>Office Phone</u>: NA
<u>**E-Mail**</u>: david.rosas@imperial.edu
<u>Office Hours</u>: NA

Text: Introductory and Intermediate Algebra for College Students, 4th Edition, Robert Blitzer, Pearson, 2013.

The following will be covered from the book:
Chapter 4-Systems of Linear Equations
Chapter 8-Basics of Functions
Chapter 9-Inequalities
Chapter 10-Radicals and Radical Functions
Chapter 11-Quadratic Equations and Functions
Chapter 12-Exponential and Logarithmic Functions
Chapter 13-Conic Sections
Chapter 14-Sequences and Series

You will find this textbook in the IVC bookstore.

<u>Catalog Description</u>: Prerequisite: MATH 081 or MATH 080 with a grade of "C" or better or appropriate placement. A further study of the concepts of algebra: Topics covered include linear and quadratic equations, relations, functions and graphs, systems of equations, logarithms and exponential functions, conic sections, and sequences and series. (Nontransferable, AA/AS degree only)

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. demonstrate an understanding of radical expressions and equations.

2. demonstrate the ability to solve systems of equations, including systems with three equations and three variables.

3. demonstrate an understanding of quadratic functions, including graphing and equations.

4. demonstrate an understanding of functions and relations, including one-to-one functions.

5. demonstrate an 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.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Solve quadratic equations by factoring, completing the square, and quadratic formula. (ILO2)
2. Solve equations involving radicals. (ILO2)
3. Recognize and graph equations of conic sections. (ILO2)
4. Perform operations on functions algebraically. (ILO2)
5. Solve an application involving exponential functions. (ILO2, ILO5).

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible.

DSP&S Room 2117
Health Sciences Building
(760) 355-6313   (760) 355-4174 (TDD)

Exams: There will be three exams during the semester and a final exam on the last day.
Test 1: Chapters 4 and 8   (20% of your grade)
Test 2: Chapters 9 and 10   (20% of your grade)
Test 3: Chapters 11 and 12   (20% of your grade)
Final Exam: Chapters 4 and 8-14 (20% of your grade)

Homework: There will be an assignment on every chapter. (10% of your grade) NO LATE HOMEWORKS WILL BE ACCEPTED.

Quizzes: There will be a quiz on the most important concepts at the end of class. IF YOU ARE ABSENT OR IF YOU LEAVE EARLY, YOU WILL RECEIVE A ZERO. (10% of your grade)

Grades: Your grades will be updated weekly on Blackboard.

The homework will be submitted through www.MathXL.com

The MathXL Course ID for this class is: XL14-I1Y5-601Z-0T52

MAKE-UP TESTS: No make-up tests will be allowed. If you miss a test, you will receive a zero. Make sure you don't miss a test.

ATTENDANCE: You are required to attend classes. You will be dropped on the third absence or fifth tardy.

I hope you enjoy my class! Mr. Rosas

Math 091 Pacing Guide Spring 2013

Jan 14 First Day of School 4.1 Solving Systems of Linear Equations by Graphing 4.2 Solving Systems of Linear Equations by the Substitution Method	Jan 16 4.3 Solving Systems of Linear Equations by the Addition Method 4.4 Problem Solving Using Systems of Equations
Jan 21 **NO CLASSES-Martin Luther King jr**	Jan 23 4.5 Systems of Linear Equations in Three Variables
Jan 28-CENSUS DAY 8.1 Introduction to Functions	Jan 30 8.2 Graphs of Functions 8.3 The Algebra of Functions
Feb 4 8.4 Composite and Inverse Functions	Feb 6 **Chapters 4 and 8 Test**
Feb 18 **NO CLASSES-President's Day**	Feb 20 9.1 Reviewing Linear Inequalities and Using Inequalities in Business Applications 9.2 Compound Inequalities
Feb 25 9.3 Equations and Inequalities Involving Absolute Value	Feb 27 10.1 Radical Expressions and Functions 10.2 Rational Exponents
Mar 4 10.3 Multiplying and Simplifying Radical Expressions	Mar 6 10.4 Adding, Subtracting, and Dividing Radical Expressions 10.5 Multiplying with More Than One Term and Rationalizing Denominators
Mar 11 10.6 Radical Equations 10.7 Complex Numbers	Mar 13 **Chapters 9 and 10 Test**
Mar 18 11.1 The Square Root Property and Completing the Square; Distance and Midpoint Formulas 11.2 The Quadratic Formula	Mar 20 11.3 Quadratic Functions and Their Graphs 11.4 Equations Quadratic in Form
Mar 25 12.1 Exponential Functions 12.2 Logarithmic Functions	Mar 27 12.3 Properties of Logarithms
Apr 1 **NO CLASSES-Spring Break**	Apr 3 **NO CLASSES-Spring Break**

Apr 8 12.4 Exponential and Logarithmic Equations 12.5 Exponential Growth and Decay; Modeling Data	Apr 10 **Chapters 11and 12 Test**
Apr 15 13.1 The Circle	Apr 17 13.2 The Ellipse
Apr 22 13.3 The Hyperbola	Apr 24 13.4 The Parabola; Identifying Conic Sections 13.5 Systems of Nonlinear Equations in Two Variables
Apr 29 14.1 Sequences and Summation Notation 14.2 Arithmetic Sequences	May 1 14.3 Geometric Sequences and Series
May 6 Review for Final Exam	May 8 FINAL EXAM