Math 091 Syllabus Spring 2013

Math 091   Intermediate Algebra Syllabus.
CRN: 20200
Instructor: Oscar J. Hernandez
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Text-Book: Introductory and Intermediate Algebra for College
Students.
4th Edition
Author: Robert Blitzer

Office Hours : MW 12:00-12:30 PM, TR 1:30-3:00PM

Class day and Time:
   CRN: 20200 - TR 10:15 AM-12:45 PM Room 2725
   Credit Units 5

COURSE/CATALOG DESCRIPTION:

A further study of the concepts of algebra. Topics covered include linear and quadratic equations, relations, functions and graphs,systems of equations, logarithmic and exponential functions, conic sections, and sequences and series.

PREREQUISITES, if any:
   1   MATH 081 with a minimum grade of C or better or
   2   Appropriate placement

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. Solve three by three linear systems by elimination or/and substitution. (ILO2)
5. Solve an application involving exponential functions. (ILO2, ILO5)

MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

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

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.

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.
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Room 2117
Health Sciences Building
(760) 355-6312

Attendance Policy: Maximum number of absence allowed: 2, being tardy or leaving early will count as half absence. The instructor can drop you from class if the number of absence exceeds the number allowed.

Grading: If the final exam score is greater than one of the tests, the lowest test score will be change with the final exam score.

Homework   100 points   15%
3 Tests   100 points each 60%
Final Exam   200 points 25%

After all of your scores have been totaled, final grades will be assigned as follows:

90 % - 100 %   = A
80 % -   89 %   = B
70 % -   79 %   = C
60 % -   69 %   = D
59% or less   = F

Dropping: You may be dropped from this class if you miss the first day or if you miss three or more class sessions total. The last day to drop this class is April 13, 2013. After that date, I must give you a letter grade. It is your responsibility to drop, not mine.

Chapter 4   January 15-24
Systems of Linear Equations
   4.1 Solving Systems of LinearEquations by Graphing.
   4.2 Solving Systems of Linear Equations by Substitution
   4.3 Solving Systems of Linear Equations by Addition
   4.4 Problem Solving Using Systems of Equations
   4.5 Systems of Linear Equations in Three Variables

Chapter 8   January 29-Feb. 7
Basics of Functions
8.1 Introduction to Functions
     8.2 Graphs of Functions
     8.3 The Algebra of Functions
     8.4 Composite and Inverse Functions

Chapter 9
9.1 Reviewing Linear Inequalities
9.2 Compound Inequalities
9.3 Equations and Inequalities Involving Absolute Value

Test # 1   Chapters 4, 8, 9   Feb. 12

Chapter 10   Feb. 14-28
Radicals, Radicals Functions, and Radical Exponents
10.1 Radical Expressions and Functions
10.2 Rational Exponents
10.3 Multiplying and Simplifying Radical Expressions
10.4 Adding, Subtracting, and Dividing Radical Expressions
10.5 Multiplying with More Than One Term and   Rationalizing Denominators
10.6 Radical Equations
10.7 Complex Numbers

Chapter 11   March 5-14
Quadratic Equations and Functions
11.1 The Square Root Property, Completing the Square
11.2 The quadratic Formula
11.3 Quadratic Functions and Their Graphs
11.4 Equations Quadratic in Form

Test # 2 Chapters 10 and 11, March 19

Chapter 12   March 21-28
Exponentials and Logarithmic Functions

12.1 Exponentials Functions
12.2 Logarithmic Functions
12.3 Properties of Logarithms
12.4 Exponentials and Logarithmic Equations
12.5 Exponential Growth and Decay; Modeling Data

Chapter 13   April 09-18
Conic Sections and Systems of Nonlinear Equations

13.1 The Circle
13.2 The Ellipse
13.3 The Hyperbola
13.4 The Parabola; Identifying Conic Sections
13.5 Systems of Nonlinear Equations in Two Variables

Test # 3 Chapters 12 and 13   April 23

Chapter 14   April 25- May 02
Sequences and Series

14.1 Sequences and Summation Notation
14.2 Arithmetic Sequences
14.3 Geometric Sequences and Series

Final Exam Chapters 4,8,9,10,11,12,13, and 14
May 07, 2013