#### **Basic Course Information**

Semester	Spring 2016	Instructor Name	Oscar J. Hernandez
Course Title & #	Intermediate Algebra	Email	Oscar.hernandez@imperial.edu
	Math 091		
CRN#	20101	Webpage (optional)	
Room	2725	Office	2767-1
Class Dates	February 03 - June 09	Office Hours	MTWR 12:45-13:45
Class Days	Tuesday and Thursday	Office Phone #	760-355-6739
Class Times	10:15-12:45	Office contact if	Call my office Phone # (760)
		student will be out	355-6739 or send an e-mail.
Units	5	or emergency	

# **Course Description**

A further study of the concepts of algebra. Topics covered include linear and quadratic equations, relations, functions and graphs, systems of equations, logarithmics and exponential functions, conic sections, and sequences and series. (Nontransferable, AA/AS degree only)

## **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)

# **Course Objectives**

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 applications, inequalities and absolute value inequalities.
- 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.

#### Textbooks & Other Resources or Links

 Blitzer (2012). Introductory & Intermediate Algebra for College Students (4th/e). Pearson. ISBN: 978-0321729385

# **Course Requirements and Instructional Methods**

MATH 081 or MATH 080 with a grade of "C" or better or Appropriate Placement

### **Instructional Methods:**

Problem Solving Exercise, Written Assignments, Tests and Final Exam, Homework (MathXL), Group Activity

#### Out-of-class:

A typical out of class assignment would be as follow: 1. Complete an assigned list of exercises on an online math homework program such as MathXL. 2. Read the tutorial and sample exercises as needed.

# **Course Grading Based on Course Objectives**

**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	
3 Tests	100 points each	
Final Exam	200 points	

# No make-up test will be given

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

90 % - 100 %	A
80 % - 89 %	В
70 % - 79 %	С
60 % - 69 %	D
59% or less	F

#### Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused
  absences exceed the number of hours the class is scheduled to meet per week may be dropped. For
  online courses, students who fail to complete required activities for two consecutive weeks may be
  considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

## **Classroom Etiquette**

- <u>Electronic Devices</u>: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor. **Consider:** specifics for your class/program
- <u>Food and Drink</u> are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- <u>Disruptive Students</u>: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- <u>Children in the classroom</u>: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

#### **Academic Honesty**

- <u>Plagiarism</u> is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to 'cite a source' correctly, you must ask for help.
- <u>Cheating</u> is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

# Additional Help - Discretionary Section and Language

• Blackboard support center: <a href="http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543">http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543</a>

- <u>Learning Labs</u>: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Study Skills Center (library). Please speak to the instructor about labs unique to your specific program.
- <u>Library Services</u>: There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

# **Disabled Student Programs and Services (DSPS)**

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. The DSP&S office is located in Building 2100, telephone 760-355-6313, if you feel you need to be evaluated for educational accommodations.

#### **Student Counseling and Health Services**

Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see <a href="http://www.imperial.edu/students/students/student-health-center/">http://www.imperial.edu/students/

## **Student Rights and Responsibilities**

#### **Information Literacy**

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <a href="http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/">http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/</a>

## **Anticipated Class Schedule / Calendar**

<b>Tentative Date</b>	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
February 14-23	Chapter 8	
	8.1 Introduction to Functions	
	8.2 Graphs of Functions	
	8.3 The Algebra of Functions	
	8.4 Composite and Inverse Functions	

February 28	Chapter 9	
to	-	
March 09	Linear Inequalities	
	9.1 Reviewing Linear Inequalities	
	9.2 Compound Inequalities	
	9.3 Equations and Inequalities involving Absolute	
	value.	
	9.4 Linear Inequalities in Two Variables	
March 14	Test # 1 Chapters 8 and 9	March 14
March 16-30	Chapter 10	
	Radicals, Radical Functions, and Radical Exponents	
	10.1 Radicals Expressions and Functions	
	10.2 Rational Exponents	
	10.3 Multiplying and Simplifying Radicals 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	
April 4 - 13	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.	
	11.5 Polynomial and Rational Inequalities.	
April 25	Test # 2 Chapters 10 and 11	April 25
	Chapter 12	
	Exponentials and Logarithmic Functions	
April 27	12.1 Exponentials Functions	
to	12.2 Logarithmic Functions	
May 09	12.3 Properties of Logarithms	
	12.4 Exponentials and Logarithmic Equations	
	12.5 Exponential Growth and Decay; Modeling data.	
	Chapter 13	
	Conic Sections and Systems of Nonlinear Equations	
May 11-18	13.1 The Circle	
I	13.2 The Ellipse	
	13.3 The Hyperbola 13.4 The Parabola; Identifying Conic Sections	

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	13.5 Systems of Nonlinear Equations in Two Variables	
May 23	Test # 3 Chapters 12 and 13	May 23
-	Chapter 14	•
May 25	Sequences and Series	
to	14.1 Sequences and Summation Notation	
June 1	14.2 Arithmetic Sequences	
	14.3 Geometric Sequences and Series.	
June 06	Final Exam Chapters 8-14	