

### Basic Course Information

Semester	<b>Spring 2015</b>	Instructor Name	<b>Oscar J. Hernandez</b>
Course Title & #	<b>Intermediate Algebra Math 091</b>	Email	<a href="mailto:Oscar.hernandez@imperial.edu">Oscar.hernandez@imperial.edu</a>
CRN #	<b>20107</b>	Webpage (optional)	
Room	<b>2728</b>	Office	<b>2767-1</b>
Class Dates	<b>February 16 - June 7</b>	Office Hours	<b>MW 10:50-11:20 TWR 12:45-13:45</b>
Class Days	<b>Tuesday and Thursday</b>	Office Phone #	<b>760-355-6739</b>
Class Times	<b>14:00-16:30</b>	Office contact if student will be out or emergency	<b>Call my office Phone # (760) 355-6739 or send an e-mail.</b>
Units	<b>5</b>		

### 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.

<b>Homework</b>	100 points = 15%
<b>3 Tests</b>	100 points each = 60%
<b>Final Exam</b>	200 points = 25%

**No make-up test will be given**

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

90 % - 100 %	<b>A</b>
80 % - 89 %	<b>B</b>
70 % - 79 %	<b>C</b>
60 % - 69 %	<b>D</b>
59% or less	<b>F</b>

### 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

- **Electronic Devices:** 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
- **Food and Drink** are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- **Disruptive Students:** 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.
- **Children in the classroom:** Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

### Academic Honesty

- **Plagiarism** 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.
- **Cheating** 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:** <http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543>
- **Learning Labs:** 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.
- **Library Services:** 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 <http://www.imperial.edu/students/student-health-center/>. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

### Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities, please refer to the IVC General Catalog available online at [http://www.imperial.edu/index.php?option=com\\_docman&task=doc\\_download&gid=4516&Itemid=762](http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762)

### Information Literacy

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

### Anticipated Class Schedule / Calendar

Tentative Date	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
February 16-23	<p style="text-align: center;"><b>Chapter 8</b></p> <p>8.1 Introduction to Functions</p> <p>8.2 Graphs of Functions</p> <p>8.3 The Algebra of Functions</p> <p>8.4 Composite and Inverse Functions</p>	

<p>February 25 to March 08</p>	<p style="text-align: center;"><b>Chapter 9</b> <b>Linear Inequalities</b></p> <p>9.1 Reviewing Linear Inequalities 9.2 Compound Inequalities</p> <p>9.3 Equations and Inequalities involving Absolute value.</p> <p>9.4 Linear Inequalities in Two Variables</p>	
<p><b>March 10</b></p>	<p style="text-align: center;"><b>Test # 1 Chapters 8 and 9</b></p>	<p><b>March 10</b></p>
<p>March 15-24</p>	<p style="text-align: center;"><b>Chapter 10</b> <b>Radicals, Radical Functions, and Radical Exponents</b></p> <p>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</p>	
<p>April 5 - 14</p>	<p style="text-align: center;"><b>Chapter 11</b> <b>Quadratic Equations and Functions</b></p> <p>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.</p>	
<p><b>April 19</b></p>	<p style="text-align: center;"><b>Test # 2 Chapters 10 and 11</b></p>	<p><b>April 19</b></p>
<p>April 21 to May 05</p>	<p style="text-align: center;"><b>Chapter 12</b> <b>Exponentials and Logarithmic Functions</b></p> <p>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.</p>	
<p>May 10-19</p>	<p style="text-align: center;"><b>Chapter 13</b> <b>Conic Sections and Systems of Nonlinear Equations</b></p> <p>13.1 The Circle 13.2 The Ellipse 13.3 The Hyperbola</p>	

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	13.4 The Parabola; Identifying Conic Sections 13.5 Systems of Nonlinear Equations in Two Variables	
<b>May 24</b>	<b>Test # 3 Chapters 12 and 13</b>	<b>May 24</b>
May 26 to June 2	<b>Chapter 14</b> <b>Sequences and Series</b> 14.1 Sequences and Summation Notation 14.2 Arithmetic Sequences 14.3 Geometric Sequences and Series.	
<b>June 07</b>	<b>Final Exam Chapters 8-14</b>	