

### Basic Course Information

Semester	<b>Spring 2018</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>20106</b>	Webpage (optional)	
Room	<b>402</b>	Office	<b>2767-1</b>
Class Dates	<b>February 12 - June 08</b>	Office Hours	<b>MTWR 12:45-13:45</b>
Class Days	<b>Tuesday and Thursday</b>	Office Phone #	<b>760-355-5739</b>
Class Times	<b>10:15-12:45</b>	Office contact if student will be out or emergency	<b>Call my office Phone # (760) 355-5739 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 (2017). 1<sup>st</sup> Edition. *Developmental Math for College Students*. Pearson. ISBN: 978-0-13-426833-0

### 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 (Mymathlab), 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 Mymathlab. 2. Read the tutorial and sample exercises as needed.

### Course Grading Based on Course Objectives

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 %	<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**

- **Canvas support center:** <http://community.canvaslms.com/docs/DOC-10701>
- **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 12-22	<p style="text-align: center;"><b>Chapter 14</b></p> <p>14.1 Introduction to Functions</p> <p>14.2 Graphs of Functions</p> <p>14.3 The Algebra of Functions</p> <p>14.4 Composite and Inverse Functions</p>	
February 27 to March 08	<p style="text-align: center;"><b>Chapter 15</b> <b>Linear Inequalities</b></p> <p>15.1 Reviewing Linear Inequalities</p> <p>15.2 Compound Inequalities</p> <p>15.3 Equations and Inequalities involving Absolute value.</p> <p>15.4 Linear Inequalities in Two Variables</p>	
<b>March 13</b>	<b>Test # 1 Chapters 14 and 15</b>	<b>March 13</b>
March 15-29	<p style="text-align: center;"><b>Chapter 16</b> <b>Radicals, Radical Functions, and Radical Exponents</b></p> <p>16.1 Radicals Expressions and Functions</p> <p>16.2 Rational Exponents</p> <p>16.3 Multiplying and Simplifying Radicals Expressions</p> <p>16.4 Adding, Subtracting, and Dividing Radical Expressions</p> <p>16.5 Multiplying with more than one term and Rationalizing Denominators</p> <p>16.6 Radical Equations</p> <p>16.7 Complex Numbers</p>	
<b>April 2 – 6</b>	<b>Spring Break</b>	<b>No Classes.</b>
April 10 - 19	<p style="text-align: center;"><b>Chapter 17</b> <b>Quadratic Equations and Functions</b></p> <p>17.1 The square Root Property, Completing the square.</p> <p>17.2 The Quadratic Formula</p> <p>17.3 Quadratic Functions and Their Graphs</p> <p>17.4 Equations Quadratic in Form.</p> <p>17.5 Polynomial and Rational Inequalities.</p>	
<b>April 24</b>	<b>Test # 2 Chapters 16 and 17</b>	<b>April 24</b>

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<p>April 26 to May 08</p>	<p style="text-align: center;"><b>Chapter 18</b> <b>Exponentials and Logarithmic Functions</b></p> <p>18.1 Exponentials Functions 18.2 Logarithmic Functions 18.3 Properties of Logarithms 18.4 Exponentials and Logarithmic Equations 18.5 Exponential Growth and Decay; Modeling data.</p>	
<p>May 10-17</p>	<p style="text-align: center;"><b>Chapter 19</b> <b>Conic Sections and Systems of Nonlinear Equations</b></p> <p>19.1 Distance and Midpoints Formulas; The Circle 19.2 The Ellipse 19.3 The Hyperbola 19.4 The Parabola; Identifying Conic Sections 19.5 Systems of Nonlinear Equations in Two Variables</p>	
<p style="text-align: center;"><b>May 22</b></p>	<p style="text-align: center;"><b>Test # 3 Chapters 18 and 19</b></p>	<p style="text-align: center;"><b>May 22</b></p>
<p>May 24 - 31</p>	<p style="text-align: center;"><b>Chapter 20</b> <b>Sequences and Series</b></p> <p>20.1 Sequences and Summation Notation 20.2 Arithmetic Sequences 20.3 Geometric Sequences and Series.</p>	
<p style="text-align: center;"><b>June 05</b></p>	<p style="text-align: center;"><b>Final Exam Chapters 14-20</b></p>	<p style="text-align: center;"><b>June 5</b></p>