

### Basic Course Information

Semester	<b>Spring 2016</b>	Instructor Name	<b>Carlos Duarte</b>
Course Title & #	<b>Math 91</b>	Email	<a href="mailto:carlos.duarte@imperial.edu">carlos.duarte@imperial.edu</a>
CRN #	<b>20110</b>	Webpage (optional)	
Room	<b>2722</b>	Office	<b>NA</b>
Class Dates	<b>February 16 – June 10</b>	Office Hours	<b>N/A</b>
Class Days	<b>Mondays and Wednesday</b>	Office Phone #	<b>N/A</b>
Class Times	<b>6:30-9:00 p.m.</b>	Office contact if student will be out or emergency	<b>N/A</b>
Units	<b>5 units</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, logarithmic 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
- [www.mathxl.com](http://www.mathxl.com)

### Course Requirements and Instructional Methods

#### Homework(10%)

ALL homework will be done through the following web site: [www.mathxl.com](http://www.mathxl.com). All deadline dates are online at the site. **NO LATE HOMEWORK WILL BE ACCEPTED. Everything on mathxl.com is considered homework. No homework will be accepted after the final exam. Homework closes (due) on the last day the class meets.**

**Tests (75%) –**

**You can't show up late for tests! You will have a total of 3 tests each worth 25% (total of 75%). The tests will consist of problems similar to the homework and may contain essay questions where you will have to explain concepts.** Tests will be announced at least one day before, but I am hoping to give you more notice if possible. **Tests will be on the chapters being covered and most likely will include some material from previous tests.** You can only miss ONE test. If you miss a test, the NEXT test will count for two scores (the previous test will NOT be counted as two scores). If you miss two or more tests, the other tests will be given zeros for a score. You must take the test in the class you are registered for (no exceptions).

**Final Exam (15%)**

The Final Exam will consist of 20 free response questions. It will be comprehensive. **You CAN'T miss the final exam.**

**Out of Class Assignments:** The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

**Course Grading Based on Course Objectives**

<b>Grading Scale</b>		<b>Grade Distribution</b>	
A	100 – 90	Computer Homework/Tests	10%
B	89 – 80	Tests (3 tests @ 25% each)	75%
C	79 – 70	Final Exam	15%
D	69 – 60		
F	59 – under		

**USE THIS FORMULA TO CALCULATE YOUR GRADE:**

$$\begin{aligned}
 & \text{(Test \#1)*0.25 + (Test \#2)*0.25 + (Test \#3)*0.25 + (Final Exam)*0.15 + (Mathxl)*0.10 =} \\
 \text{Example: } & (84)*0.25 + (68)*0.25 + (62)*0.25 + (70)*0.15 + (80)*0.10 = 72 \text{ (C)}
 \end{aligned}$$

**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. **TURN OFF YOUR CELLULAR PHONES. Courtesy please. IF IT RINGS, YOU WILL BE ASKED TO LEAVE AND IT WILL BE MARKED AS AN ABSENCE. YOU WILL NOT BE ALLOWED TO STAY IN CLASS. NO TEXTING IN CLASS.**
- You will be encouraged to use a calculator, as many of the problems will require them. Problems that require a calculator will be on the tests, but I will not provide you with calculators. A TI-30 is enough for this class. **NO Graphing Calculators, Cell phones, OR iPod type devices will be allowed as calculators.**
- Be Prompt!!! Class starts at 6:30 p.m., not 6:35 p.m. You will NOT be allowed to come in if class has already started. DO NOT come in late or leave early from class (it disrupts the flow of the class).
- Copies of books are not allowed in class.
- 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.
- Humor is a big part of the class. To break up the monotony of class, I will pick points during class to stop so that the four hours and fifteen minutes do not seem as long. This is strategically done to help students cope with the long class.

### Academic Honesty

- Plagiarism is to take and present 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 correctly 'cite a source', 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, or assisting others in using materials, which 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) use of a commercial term paper service

### Additional Help – Discretionary Section and Language

- 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 Learning Services (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 learning center, study rooms for small groups, and online access to a wealth of resources.
- The classroom notes, old tests, study guides are available through [www.mathxl.com](http://www.mathxl.com) under "View Course Documents"

### 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 help 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

WEEK	TOPIC	
1-3	1. Basics of Functions 1.1 Introduction to Functions 1.2 Graphs of Functions 1.3 The Algebra of Functions 1.4 Composite and Inverse Functions	
4-6	2. Inequalities and Problem Solving 2.1 Linear Inequalities 2.2 Compound Inequalities 2.3 Equations and Inequalities Involving Absolute Value 2.4 Linear Inequalities in Two Variables	Test after this chapter
7-9	3. Radicals, Radical Functions, and Rational Exponents 3.1 Radical Expressions and Functions 3.2 Rational Exponents 3.3 Multiplying and Simplifying Radical Expressions 3.4 Adding, Subtracting, and Dividing Radical Expressions 3.5 Multiplying with More Than One Term and Rationalizing Denominators 3.6 Radical Equations 3.7 Complex Numbers	
10-11	4. Quadratic Equations and Functions 4.1 The Square Root Property and Completing the Square 4.2 Distance and Midpoint Formulas 4.3 The Quadratic Formula 4.4 Quadratic Functions and Their Graphs 4.5 Equations Quadratic in Form 4.6 Polynomial and Rational Inequalities 4.7 Applications of Quadratic	Test after this chapter
12-13	5. Exponential and Logarithmic Functions 5.1 Exponential Functions 5.2 Logarithmic Functions 5.3 Properties of Logarithms 5.4 Basic application of Logarithmic and Exponentials Functions	
14-15	6. Conic Sections and Systems of Nonlinear Equations 6.1 The Circle 6.2 The Ellipse 6.3 The Hyperbola 6.4 Systems of Nonlinear Equations in two variables	Test after this chapter
16	7. Sequences, Series 7.1 Sequences and Summation Notation 7.2 Arithmetic Sequences 7.3 Geometric Sequences and Series	