

### Basic Course Information

Semester	<b>Fall 2014</b>	Instructor Name	<b>Rick Castrapel</b>
Course Title & #	<b>Trigonometry Math 140</b>	Email	<b>rick.castrapel@imperial.edu</b>
CRN #	<b>10436</b>	Webpage (optional)	<b>spaces.imperial.edu/rick.castrapel</b>
Room	<b>804</b>	Office	<b>2766</b>
Class Dates	<b>August 18 to Dec 13, 2014 Drop deadline: November 8, 2014</b>	Office Hours	<b>M 4:30-5:30pm, W 11:00am-12:00pm, TR 2:00-3:00pm or by appointment</b>
Class Days	<b>Mondays and Wednesdays</b>	Office Phone #	<b>760-355-6505</b>
Class Times	<b>3:05pm-4:30pm</b>	Office contact if student will be out or emergency	<b>Silvia Murray 760-355-6201 or Ofelia Duarte 760-355-6155</b>
Units	<b>3 units</b>		

### Course Description

Right angle trigonometry and applications, unit circle trigonometry, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities, solving triangles using the Laws of Sines and Cosines, and polar coordinates.

### 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. Verify trigonometric identities (ILO2)
2. Solve a triangle given two sides and the angle in between. (ILO2)
3. Show understanding in solving trigonometric equations (ILO2)

### Course Objectives

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

1. Define the six trigonometric functions using right triangle and unit circle definitions.
2. Express angles in degrees and radians.
3. Graph trigonometric functions, including those involving vertical and horizontal translations.
4. Solve triangles using the Law of Sines and Law of Cosines, including ambiguous cases.
5. Verify trigonometric identities, including sum and difference formulas, half-angle and power-reducing formulas.
6. Define and graph inverse trigonometric functions.
7. Solve trigonometric equations.
8. Graph polar and equations.
9. Solve application problems.

### Textbooks & Other Resources or Links

Lial, Hornsby, Schneider (2012). Trigonometry(10th/e). Boston: MA Pearson/ PH. ISBN: 978-0321671776

### Course Requirements and Instructional Methods

1. Exams or Tests: There will be four tests and there will be no makeup exams given. Zeros will be given for all missed tests. Please refer to calendar for dates.
2. Final Exam: The final will be given during the last day of classes. A score of 0 will be given if the final is missed. Please refer to calendar for dates.
3. Homework: The purpose of homework is to provide students with sufficient practice to master all topics and to do well on tests and the final exam. Homework is assigned each class session and is due the next class. It is student's responsibility to complete them on or before the deadline and return them to me, regardless whether he/she is absent.

4. There will be three labs which will use Geometer's Sketchpad to reinforce trigonometry concepts. I will hand out and preview each lab in class. You may use Geometer's Sketchpad in the Math Lab, Bldg. 2500 to complete the lab. The labs are due one week after each is assigned.
5. You may earn up to 10% by sharing your class lecture and reading notes on Blackboard. Notes must be posted before the homework due date for each section.
6. There will be no extra credit. Students must learn the material to pass this course.
7. It is utmost important that students review the material to do well on exams. Students are encouraged to form study groups to meet regularly to keep up with labs and homework and to study for tests.
8. Students will not be allowed to make up an exam or final exam unless you have a powerful reason to miss a test (e.g. hospitalization, jury duty, and bring the corresponding paperwork).

### Course Grading Based on Course Objectives

The student's grade will depend on the following areas (not on total points):

Semester Tests:	<b>50%</b>	There will be 4 tests and there will be no makeup exams given. Zeros will be given for all missed tests.
Final Exam:	<b>20%</b>	The final will be given on the last day of the semester. A score of 0 will be given if the final is missed.
Homework	<b>10%</b>	Assigned at the end of each class and due the next class.
Labs	<b>10%</b>	Three Geometer's Sketchpad labs due one week after assigned.
Note Sharing	<b>10%</b>	Up to 10% for sharing your notes on Blackboard
Extra Credit:	<b>0%</b>	There is no extra credit. Students must learn the material to pass this course.

All grades are calculated by using the standard scale of: A = 100---90% B = 89---80% C = 79---70% D = 69---60% F = 59% and below

### 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.
- 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 Course Syllabus – Math 140 Trigonometry

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**

<b>Math 140 Fall 2014 Tentative Schedule</b>			
<b>Date</b>	<b>Text</b>	<b>Event</b>	<b>Notes</b>
08/18/14	1.1, 1.2		Introduction, Angles
08/20/14	1.3, 1.4		Trigonometric Functions
08/25/14	2.1, 2.2		Acute Angles, Non-acute Angles
08/27/14	2.3, 2.4		Calculator, Solving Right Triangles
09/01/14		<b>Holiday</b>	<b>Labor Day</b>
09/03/14	2.5	<b>Lab 1 Assigned</b>	Applications
09/08/14		<b>Test 1</b>	Ch 1 and 2
09/10/14	3.1, 3.2		Radian Measure
09/15/14	3.3, 3.4	<b>Lab 2 Assigned</b>	The Unit Circle, Linear and Angular Speed
09/17/14	4.1		Graphs of Sine and Cosine Functions
09/22/14	4.2, 4.3		Translations, Graphs of Tangent and Cotangent
09/24/14	4.4	<b>Lab 3 Assigned</b>	Graphs of Secant and Cosecant
09/29/14		<b>Test 2</b>	Ch 3 and 4
10/01/14	5.1		Trigonometric Identities
10/06/14	5.2		Verifying Trigonometric Identities
10/08/14	5.2		More Verifying Trigonometric Identities
10/13/14	5.3		Sum and Difference Identities for Cosine
10/15/14	5.4		Sum and Difference Identities for Sine and Tangent
10/20/14	5.5		Double Angle Identities
10/22/14	5.6		Half Angle Identities
10/27/14	6.1, 6.2		Inverse Circular Function, Trigonometric Equations I
10/29/14	6.3, 6.4		Trigonometric Equations II, Inverse Trigonometric Equations
11/03/14		<b>Test 3</b>	
11/05/14	7.1, 7.2		Law of Sines
11/10/14	7.3		Law of Cosines
11/12/14	7.4		Vectors, Complex Numbers
11/17/14	8.1, 8.2		Polar Form of Complex Numbers
11/19/14	8.3, 8.4		Product and Quotient Theorems, DeMoivre's Theorem
11/24/14		<b>Holiday</b>	<b>Thanksgiving</b>
11/26/14			
12/01/14		<b>Review, Planetarium Show</b>	Ch 7 and 8
12/03/14		<b>Test 4</b>	Ch 7 and 8
12/08/14		<b>Review</b>	Comprehensive
12/10/14		<b>Final Exam</b>	Comprehensive Final Exam

