

### Basic Course Information

Semester:	<b>Spring 2018</b>	Instructor Name:	<b>Rick Castrapel</b>
Course Title & #:	<b>Math 140 Trigonometry</b>	Email:	<b>Rick.castrapel@imperial.edu</b>
CRN #:	<b>20129</b>	Webpage (optional):	<b>spaces.imperial.edu/rick.castrapel</b>
Classroom:	<b>2723</b>	Office #:	<b>2766</b>
Class Dates:	<b>Feb 13 – Jun 7, 2018</b> <b>Drop deadline: May 12</b>	Office Hours:	<b>5:00-6:00pm M-R or By Appointment</b>
Class Days:	<b>TR</b>	Office Phone #:	<b>760-355-6505</b>
Class Times:	6:30-7:55pm	Emergency Contact:	<b>Silvia Murray 760-355-6201 or Ofelia Duarte 760-355-6155</b>
Units:	3		

### 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. (CSU)

### Course Prerequisite(s) and/or Corequisite(s)

MATH 91 with a minimum grade of C or better or equivalent or appropriate placement

### 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. Demonstrate problem solving strategies by identifying an appropriate method to solve a given problem, correctly set up the problem, perform the appropriate analysis and computation, and share their interpretation of the conclusion or the outcome, using correct grammar or in an oral presentation. This outcome will be assessed through selected exercises on exams throughout the semester. (ILO1, 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.

- Solve application problems.

### Textbooks & Other Resources or Links

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

MathXL subscription

### Course Requirements and Instructional Methods

- Chapter Exams:** There will be four chapter exams. Please refer to calendar for dates.
- 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.
- Homework:** 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. Homework is assigned and due dates posted in **MathXL** (see last page of syllabus). MathXL course code is **XL2X-Z11C-201Z-75C2**. Chapter section 5.2 homework is to be turned in hard copy at the beginning of class. Late homework is not accepted.
- There will be three **labs** given in the Math Lab. The labs are intended to reinforce triangle concepts.
- There will be no extra credit.** Students must learn the material to pass this course.
- 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.
- 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).
- Your scores will be updated periodically in **Canvas**.
- Tests are closed book and closed notes. You will be told in advance of formulas you need to know or those that will be provided with the test.
1030. Calculator: A scientific calculator is required. Use of graphing calculators are not permitted on tests. If you use your cell phone as a calculator during a test, it must be kept flat on the table at all times. Any attempt to photograph the test will result in immediate termination of the test.

### Course Grading Based on Course Objectives

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

Chapter Tests	<b>50%</b>	There will be four tests during the semester. 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.
Labs	<b>15%</b>	There will be three labs
Homework	<b>10%</b>	Homework will be assigned each class and will be due the following class.
Homework Ch 5.2	<b>5%</b>	Section 5.2 Homework to be done on paper
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 by the instructor.
- 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.

### Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!)].

### Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- 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 plagiarizing 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 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 Student Services**

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **CANVAS LMS.** Canvas is Imperial Valley College’s main Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).
- **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. Please contact them 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.

- **Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services.** Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential,

supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 or in the building 1536 for appointments or more information..

### **Veteran's Center**

The mission of the [IVC Military and Veteran Success Center](#) is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

### **Extended Opportunity Program and Services (EOPS)**

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, [lourdes.mercado@imperial.edu](mailto:lourdes.mercado@imperial.edu).

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, [alexis.ayala@imperial.edu](mailto:alexis.ayala@imperial.edu).

### **Student Equity Program**

- The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The

college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.

- The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

### **Student Rights and Responsibilities**

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

### **Information Literacy**

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

**Anticipated Class Schedule/Calendar**

<b>Math 140 Spring 2018 Tentative Schedule</b>				
<b>DOTW</b>	<b>Date</b>	<b>Text</b>	<b>Event</b>	<b>Notes</b>
Tue	02/13/18	1.1, 1.2		Introduction, Angles
Thu	02/15/18	1.3, 1.4		Trigonometric Functions
Tue	02/20/18	2.1, 2.2		Acute Angles, Non-acute Angles
Thu	02/22/18	2.3, 2.4		Calculator, Solving Right Triangles
Tue	02/27/18	2.5		Applications
Thu	03/01/18		<b>Lab 1</b>	Meet in Math Lab
Tue	03/06/18		<b>Test 1</b>	Test 1 Ch 1 and 2
Thu	03/08/18	3.1, 3.2		Radian Measure
Tue	03/13/18	3.3, 3.4		The Unit Circle, Linear and Angular Speed
Thu	03/15/18	4.1, 4.2		Graphs of Sine and Cosine Functions, translations
Tue	03/20/18		<b>Lab 2</b>	Meet in Math Lab
Thu	03/22/18	4.2, 4.3		Translations, Graphs of Tangent and Cotangent
Tue	03/27/18	4.4		Graphs of Secant and Cosecant
Thu	03/29/18		<b>Test 2</b>	Test 2 Ch 3 and 4
Tue	04/03/18	<b>Spring Break</b>		
Thu	04/05/18			
Tue	04/10/18		<b>Lab 3</b>	Meet in Math Lab
Thu	04/12/18	5.1		Basic Trigonometric Identities
Tue	04/17/18	5.2		Verifying trig identities <b>HW 5.2 Assigned</b>
Thu	04/19/18	5.2		Verifying Trigonometric Identities
Tue	04/24/18	5.3		Sum and Difference Identities for Cosine
Thu	04/26/18	5.4		Sum and Difference Identities for Sine and Tangent <b>HW 5.2 Due</b>
Tue	05/01/18	5.5, 5.6		Double Angle and Half Angle Identities
Thu	05/03/18	6.1, 6.2		Inverse Circular Function, Trigonometric Equations I
Tue	05/08/18	6.3, 6.4		Trigonometric Equations II, Inverse Trigonometric Equations
Thu	05/10/18		<b>Test 3</b>	Test Ch 5 and 6
Tue	05/15/18	7.1, 7.2		Law of Sines, ambiguous case, Law of Cosines
Thu	05/17/18	7.3		Law of Cosines
Tue	05/22/18	7.4, 8.1		Vectors, Polar Form of Complex Numbers
Thu	05/24/18	8.2, 8.3		Product and Quotient Theorems
Tue	05/29/18	8.4		De Moivre's Theorem
Thu	05/31/18		<b>Test 4</b>	Test Ch 7 and 8, Final Review
Tue	06/05/18			Review for Final Exam
Thu	06/07/18	<b>Final Exam</b>		Comprehensive Final Exam

\*\*\*Tentative, subject to change without prior notice\*\*\*



## How to Register and Enroll in Your Course

Welcome to MathXL! Your instructor has set up a MathXL course for you.

The course name is: Math 140 Trigonometry Spring 2018

It is based on this textbook: *Lial: Trigonometry, 10e*

To join this course, you need to register for MathXL and then enroll in the course.

### 1. Registering for MathXL

Before you begin, make sure you have the access code that comes with your MathXL Access Kit.

To register or buy access, go to [www.mathxl.com](http://www.mathxl.com), click the **Student** button in the Register section, and then follow the instructions on the screen.

### 2. Enrolling in your instructor's course

After registering, log in to MathXL with your username and password. To enroll in this course, enter the following Course ID:

**The Course ID for your course is: XL2X-Z11C-201Z-7SC2**

### Need more help?

To view a complete set of instructions on registering and enrolling, go to [www.mathxl.com](http://www.mathxl.com) and visit the Tours page.