Basic Course Information

Semester:	**Fall 2022**	Instructor Name:	**Jeff Burt**
Course Title & #:	**Trigonometry - Math 140**	Email:	**Jeff.burt@imperial.edu**
CRN #:	**10774**	Webpage (optional):	**NA**
Classroom:	**3300**	Office #:	**2765**
Class Dates:	**8/15-12/10**	Office Hours:	**TBD**
Class Days:	**T/Th**	Office Phone #:	**760-355-6489**
Class Times:	1pm – 2:25pm	Emergency Contact:	**email**
Units:	3		

Course Description

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

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

Prerequisite: Appropriate placement as defined by AB705 or,
MATH 098 or MATH 091 with a grade of "C" or better.
Corequisite: Math 042

Student Learning Outcomes

Upon successful completion of this course, a student will:

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

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 coordinates and equations.
9. Solve application problems.

Textbooks & Other Resources or Links

Lial, Hornsby, Schneider, Daniels 2020. Trigonometry 12th. Pearson. ISBN-13: 9780135924181
A scientific calculator is required. No graphing calculators are allowed on exams.

Course Requirements and Instructional Methods

The goal of this course is for you to gain the necessary skills and knowledge to do well, and improve your mathematical abilities, so you are able to succeed in future courses. My responsibility is to help you in any way I can to accomplish these goals, however it is your responsibility to be committed to your own success and keep up with the pace of the class. To do so you need to complete assignments on time and please ask questions when you have them.

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. This means you should plan on 3 hours of class time, plus an additional 6 hours each week for working outside of class. This means you should spend at least 9 hours working on math each week.

Course Rules:
1) Late work is not accepted. If you are going to be gone, contact me before the absence to make arraignments.
2) There are no make up tests.
3) It is your responsibility to drop or withdraw the class. Failure to do so will result in a regular grade (most probably an F).
4) Regular attendance is recommended and expected. The instructor can drop you from the class if you have more than the allowed number of absences.
5) You need to ask questions whenever you have them. If not in class, please come to my office during office hours, call me, email me, go to the math lab, google it, YouTube it, etc.
6) It is your responsibility to make up the work you missed if you are absent. I highly recommend finding someone else to copy notes and material from that were covered in your absence.

Course Grading Based on Course Objectives

There will be 3 in class exams, worth 100 points each. The final is comprehensive and is worth 150 points. There are no make-ups for the exams or final. Plan to be here for the exam dates in the schedule, but also note that those dates can change, so make sure you are paying attention and staying up to date. Any missed exam will result in the grade of a '0'.

There will be quizzes on an almost daily basis. The average of your quizzes at the end of the semester is worth 15%. Your lowest two quizzes will be dropped. There are no make up quizzes.

Homework is worth 5% of your grade. Each exam is worth 15% and the final is worth 20%

Grading:

Quizzes	15%
Homework	05%
Exams	60%
Final	20%
Total	100%

The grade categories are as follows: A 100%-90%, B 89.9%-80%, C 79.9%-70%, D 69.9%-60%, F 59.9%-0%

Attendance, class participation and a subjective instructor's interpretation of work may be used in assigning a final grade to borderline cases.

Anticipated Class Schedule/Calendar

	Day 1	Day 2
Week 1 8/15-8/19	First Day of Class	1.1,
Week 2 8/22-8/26	1.2, 1.3,	1.4, 2.1
Week 3 8/29-9/2	2.2, 2.3	2.4, 2.5
Week 4 9/5-9/9	review	Exam 1
Week 5 9/12-9/16	3.1, 3.2	3.3
Week 6 9/19-9/23	3.4	4.1, 4.2
Week 7 9/26-9/30	4.3	4.4, (4.5)
Week 8 10/3-10/7	Review	Exam 2
Week 9 10/10-10/14	5.1,	5.2
Week 10 10/17-10/21	5.3	5.4, 5.5
Week 11 10/24-10/28	5.6,6.1	6.2
Week 12 10/31-11/4	6.3, 6.4	Exam 3
Week 13 11/7-11/11	7.1, 7.2	7.3,8.1
Week 14 11/14-11/18	8.2, 8.3	8.4
Week 15 11/21-11/25	Thanksgiving Break	Thanksgiving Break
Week 16 11/28-12/2	Review	Exam 4
Week 17 12/5-12/9	Review	Final Exam