



Note to Instructor: Replace the placeholder text beneath the headings with the appropriate information for your course. Please note that all sections, with the exception of "Other Course Information," are required elements.

Basic Course Information

Semester:	SPRING 2021	Instructor Name:	ERIC LEHTONEN
Course Title & #:	MATH 170 APPLIED CALCULUS	Email:	eric.lehtonen@imperial.edu
CRN #:	20805	Webpage (optional):	
Classroom:	N/A	Office #:	2763
Class Dates:	2/16/21-6/10/21	Office Hours:	MW 1 - 2 PM
Class Days:	TR	Office Phone #:	(760)355-6522
Class Times:	1:00-3:05 PM	Emergency Contact:	(619)517-3742
Units:	4	Class Format:	SYNCHRONOUS

Course Description

[Paste in the course description from the Course Outline of Record (COR), located at <https://imperial.curricunet.com/Search>]

Preparation for calculus: polynomial, absolute value, radical, rational, exponential, logarithmic, and trigonometric functions and their graphs; analytic geometry, polar coordinates. (CSU) (UC credit limited. See a counselor)

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

[Paste in the course prerequisite(s) and/or corequisite(s) from the COR, located at <https://imperial.curricunet.com/Search>]

Appropriate placement as defined by AB705 or, MATH 140 or equivalent with a grade of "C" or better.



Student Learning Outcomes

[Paste in the course student learning outcomes from the COR, located at <https://imperial.curricunet.com/Search>]

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

[Paste in the course objectives from the COR, located at <https://imperial.curricunet.com/Search>]

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

- . 1 Solve systems of equations and inequalities.
- . 2 Solve equations in one variable including polynomial, rational, radical, absolute value, exponential, logarithmic, piecewise-defined functions, trigonometric and inverse trigonometric functions; and solve inequalities in one variable, including polynomial, rational and absolute value inequalities.
- . 3 Demonstrate an understanding of the relationship between functions and their inverses algebraically and graphically.
- . 4 Graph functions and relations in rectangular and polar coordinates. Analyze the graphs of polynomial, rational, exponential and logarithmic functions based on particular characteristics of the function.



- . 5 Apply transformations to the graphs of functions and relations.
- . 6 Analyze the results from equations and/or graphs of functions and relations;
- . 7 Solve applied problems from a variety of disciplines that can be modeled by linear, polynomial, absolute value, rational, radical, exponential and logarithmic functions.
- . 8 Evaluate trigonometric functions of an angle in radians and degrees.
- . 9 Simplify trigonometric expressions.
- . 10 Solve trigonometric equations, triangles and applied problems that can be modeled by trigonometric functions.
- . 11 Identify special triangle and their related angle and side measures.
- . 12 Graph trigonometric functions and their inverse functions and apply changes in period, phase and amplitude to generate new graphs
- . 13 Prove trigonometric identities and use the identities to solve for exact values, simplify expressions and solve trigonometric equations.
- . 14 Classify and graph conic sections.



. 15 Analyze parametric and polar equations, functions and graphs.

. 16 Evaluate sequences and series.

Textbooks & Other Resources or Links

[Describe which textbooks and/or other resources are required for the course. Be sure to include ISBN.]

Blitzer, Robert 2017. *Precalculus* 6th. Pearson ISBN: 978-0134469140 .

Course Requirements and Instructional Methods

[Describe course activities, assignments, tests, homework, etc.]

There will be zoom meetings at the listed class time, for every class.

Course Grading Based on Course Objectives

[Provide detailed information related to grading practices and grading scale, including values and totals. Consider adding final grade calculation, rubrics, late assignment policy, and other grading practices.]

Tests - 60%. There will be 4 tests. The dates will be included in the class schedule.

Final - 30%. There will be a **comprehensive final exam**.

Quizzes - 10%. There will be frequent quizzes.

Course Policies

[Describe other policies such as attendance, academic honesty, netiquette, expected classroom behavior, etc.]

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.

Other Course Information

[Optionally, include other necessary information.]

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

[Provide a tentative overview of the readings, assignments, tests, and/or other activities for the duration of the course. A table format as in the example below may be used for this purpose.]

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
WEEK 1 FEB 16, 18	Syllabus & Introduction 1.1 1.2,1.3	
WEEK 2 FEB 23,25	2.1,2.2.2 2.3	
WEEK 3 MAR 2,4	2.4 2.5	
WEEK 4 MAR 9,11	2.6 REVIEW	
WEEK 5 MAR 16,18	TEST 1, MARCH 16 3.1,3.2	
WEEK 6 MAR 23,25	3.3,3.4 3.5	
WEEK 7 MAR 30, APR 1	4.1 4.2	
WEEK 8	SPRING BREAK	
WEEK 9 APR 13, 15	4.3 4.4	
WEEK 10 APR 20,22	4.5 REVIEW	
WEEK 11 APR 27, 29	TEST 2 APRIL 27TH 5.1,5.2	



Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
WEEK 12 MAY 4,6	5.3 5.4	
WEEK 13 MAY 11,13	6.1,6.2 6.4,6.5	
WEEK 14 MAY 18,20	7.1,7.2 7.3	
WEEK 15 MAY 25,27	7.4 7.5	
WEEK 16 JUN 1,3	REVIEW TEST 3	
WEEK 17 JUN 8, 10	REVIEW FINAL EXAM JUNE 10	

*****Subject to change without prior notice*****