PRECALCULUS
MATH 1060Q
SECTION Z82

Course Information

- **Course:** Math 1060Q Section Z82
- **Text:** Precalculus, 9^{th} ed.
- **Author:** Ron Larson
- **Classroom:** DWTN 257
- **Time:** MoWe 11:15 am - 12:30 pm

Instructor Information

- **Instructor:** Jun Peng
- **Office:** DWTN 323
- **Office Hours:** MoWe 1:00 pm - 3:00 pm, or by appointment
- **email:** jun.peng@uconn.edu

Course Description

Precalculus is a preparation for calculus which includes a thorough review of algebra. Emphasis will be on functions and their applications; in particular, polynomials, rational functions, exponentials, logarithms, and trigonometric functions.

Prerequisites

A qualifying score of 61% on the mathematics placement assessment (MPA), unless you began attending UConn prior to Fall 2016. Students who fail to achieve this minimum score are required to spend time on the preparatory and learning modules before re-taking the MPA or register for a lower level Mathematics course. Not open for credit to students who have passed MATH 1120Q, 1125Q, or 1131Q. Students may not receive credit for this course and MATH 1040Q.

Calculator Policy

All calculators **ARE NOT** permitted on the exams or quizzes.

Graded Work

Midterm	75-minute exam	20%
Final Exam	Comprehensive	30%
In-Class Quizzes	varies	30%
Individual Homework	varies	20%

Grading Scale

A	92^*+
A-	90-91
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	0-59

*: Your final grade = the smallest integer that is no less than your raw final score.
No "easy point" will be given in case you ask.

Exams & Homework Schedule

Midterm:	Oct. 16, in class
Final Exam:	TBA, in class

Dates of in-class quizzes will be given in advance either in class or via the announcement of HuskyCT. Please check your HuskyCT announcement regularly and frequently to avoid absence of any in-class quiz.

Individual homework will be assigned after every section, collected every Wednesday, and returned the following Monday. Late homework (submitted after the corresponding Wednesday) will have a "20 points off" penalty.

No late homework after the start of the Final exam will be accepted!

NO MAKE-UP EXAMS unless there is a very serious emergency for which you provide proof and notify me in advance by emails.

Please keep in mind that **A PURCHASED FLY TICKET FALLING INTO THE FINAL EXAM WEEK** won't be considered as a valid excuse and you cannot take the final exam either earlier or later in that case!

Tentative Outline

Week	Section	Topics
1	1.1	Pythagorean Theorem, Distance Formula, Applications
	1.2	Graphs of Equations, Intercepts, Symmetry, Applications (no circles)
2	1.3	Linear Equations in Two Variables, Slope, Graphing, Parallel, Perpendicular, Application Functions
	1.4	Notation, Evaluating, Piecewise, Domain, Difference Quotient, Applications
3	1.4	(continued) Notation, Evaluating, Piecewise, Domain, Difference Quotient, Applications
	1.5	Domain, Range, Zeroes, Function Behavior, Average Rate of Change, Even/Odd

	1.6	Parent Functions
4	1.7	Transformations of Functions
	1.8	Composite Functions
	1.9	Inverse Functions
5	2.1	Quadratic Functions, Completing Square, Vertex, x-Intercepts, Minimum, Maximum, Applications
	2.2	Polynomials of Higher Degree, End Behavior, Real Zeroes, Sketching
6	2.6	Rational Functions, Domain, Vertical and Horizontal Asymptotes, Sketching
	3.1	Exponential Functions and Graphs
7	3.2	Logarithmic Functions and Graphs, Applications of Exponential and Logarithmic Functions
	3.3	Properties of Logarithms
8	3.4	Exponential and Logarithmic Equations
		Midterm: Oct. 16
9	3.5	Exponential and Logarithmic Models
	4.1	Radian and Degree Measure, Arc Length, Linear and Angular Speed (no minutes, seconds, no sectors)
10	4.2	Sine/Cosine Domain/Period, Evaluating
	4.3	45/45/90 and 30/60/90, Applying Trigonometric Identities (Basic substitutions), Right Triangle Applications
11	4.4	Trigonometric Functions for any angle, Reference Angles
	4.5	Graphs of Sine and Cosine- Horizontal and Vertical Translations
12	4.6	Graphs of Other Trigonometric Functions (No Damped)
	4.7	Inverse Trigonometric Functions (emphasis on arcsin, arccos, arctan)
13	4.8	Applications and Models
	5.1	Using Fundamental Identities
14		**Thanksgiving Recess; enjoy the break!**
15	5.2	Verifying Trigonometric Identities
	5.3	Solving Trigonometric Equations
16		**Final Examination Week**