Math 31: PreCalculus I
Winter 2024, CRN 38524, Section 09Y
Monday to Thursday 11:30 AM to 12:20 PM
Friday: TBA Hours
Classroom: S16

Instructor Information

Instructor:	Andrew Jianyu Yu
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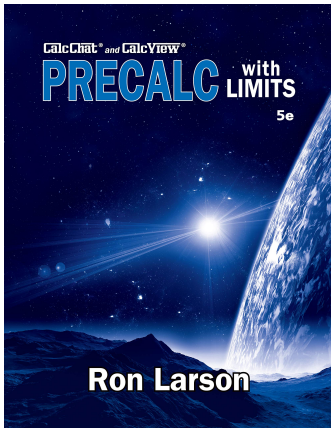
Office Location:	S76a
Office Hours:	Monday to Thursday 6:15 PM to 7:15 PM & 10:00 AM to 10:30 AM

Course Description

This course covers polynomial, rational, exponential and logarithmic functions, graphs, solving equations, conic sections, systems of equations and inequalities, sequences and series.

Prerequisite

Intermediate Algebra (MATH 109, MATH 114 or MATH 130) or equivalent.
Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273



Required Textbook

Precalc with Limits 5th Edition by Ron Larson;
Publisher: Cengage Learning (January 1, 2021)
Language: English; Hardcover: 1120 pages
ISBN-10: 0357457854; ISBN-13: 978-0357457856
Item Weight: 5.55 pounds
Dimensions: 8.7 x 1.7 x 10.9 inches
Important Notes: It is not necessary to purchase a hard copy of this book because you will not be asked to solve textbook problems on paper. The PDF of an older edition is on Canvas (see Files, Textbook folder).

Friday TBA Hours

There are no zoom meetings in Friday's TBA hours. You are expected to watch my pre-recorded videos at your own schedule. The videos will be posted on Canvas.

Graphing Calculator

TI-83 Plus TI-84 Plus TI-84 Plus CE TI-Nspire

Graphing calculator is strongly **recommended** for the course. TI-84 Plus or Plus CE is highly recommended. This calculator is widely used in math, science, and engineering courses. You are required to bring a physical calculator to the exam, and sharing calculator is considered as cheating incident. Using the calculator apps on your phone is strictly prohibited on the exam. Do not purchase the TI-Nspire Graphing Calculator (around $150) because it is too advanced for this course. Instructions will not be provided for TI-Nspire.

Technical Requirements

- **Your Email:** Please check your email regularly. If possible, connect your email with an app in your smartphone. You are welcome to ask me any questions related to lecture, homework, or personal emergency through email. **Please following the format of the subject line stated below.**

  "Math 31: _____"

  You write your inquiry after the colon. For example
  Math 31: Request Extension for Homework 2
  Your instructor is teaching 5 courses (200+ students) this quarter. The subject line above helps your instructor to quickly access your grade and status immediately.
- **WebAssign (Work System):** Homework, quizzes, and exams will be assigned and graded on WebAssign. If an assignment is required to be completed on paper, you are required to scan your work and upload it to Canvas. WebAssign is **not free**. You must pay for your own account before the free trial period ends. Otherwise, you will not be able to complete any assignments until you make a payment. The **first module** on Canvas contains a link to register your WebAssign account and another link to access to WebAssign. Alternatively, you can login WebAssign on your web browser though the link https://www.webassign.net/.
- **Canvas (Main Learning Management System):** WebAssign has been integrated to Canvas. Each weekly **module** contains the lecture videos and the weekly assignment. The first module has 3 links – the first link

for register your WebAssign account, the second link for accessing WebAssign from Canvas, and the third link for Cengage technical support. There are 2 ways to access an assignment. The first way is to click on the assignment on Canvas, it will directs you to WebAssign. The second way is to login WebAssign using the link above. **Scores on WebAssign will automatically roll over to the grade book on Canvas. At least one homework and one quiz will be assigned weekly. It is strongly recommended that you check your WebAssign account frequently because late assignments will count as no credits.**

WebAssign Class Key and WebAssign-Canvas Integration

Use the link in the first module to register your account. Please take the advantage of the free trial and do not pay anything yet. **All purchases are non-refundable.** There is no class key for this course because WebAssign has been integrated to Canvas. **Make sure your name on WebAssign matches your official name on Canvas.** Note, if you have a name that you preferred to be called but this name is not in the school system, do not use it on WebAssign. **Please capitalize the first letter of your first and last name. For example, type "Andrew" instead of "andrew". Your instructor is not an employee of WebAssign. If you experience any technical difficulty on WebAssign, please contact them to speak to a customer representative.**

Canvas

There are a few places that you have to visit frequently on Canvas.

- **Modules**
  Each weekly module shows the notes and homework of that week.
- **Grades**
  Scores will be transferred from WebAssign to Canvas. Instructor will update the grade book weekly.
- **Files**
  Notes, books, and syllabus
- **Discussion**
  If we want to have a discussion regarding any topics, we will do this in the Discussion tab.
- **Announcement**
  Emergencies, date change, change of plans, and etc

Mandatory Attendance

This is an in-person course, attendance will be taken in every in-person meeting. Students who missed 3 meetings will be dropped from the course.

Scanning Your Paperwork For Online Quizzes and Exams

Other than homework, you have to show your work for all online quiz and exam problems. Use one of the options below to upload your work to Canvas for credits. For either option below, number the problem and the page. For example, a grader can easily tell the problem number, the content of the problem, and all the steps you wrote to reach to the final answer. If an application problem has long problem statements, or a problem provides a very complicated graph (e.g. three-dimensional image), it is not necessary to copy the problem statements or the graph.

1. If you have a scanner, scan all the pages, save them as **one PDF document**, and upload the file to Canvas.
2. If you do not have a scanner, download the free app called **Genius Scan – PDF Scanner App** (five starts over 938k reviews). Take a picture of each page, use the app to merge all the pictures into **one PDF documents,** and upload the file to Canvas.

NOTE: Points will be deducted if you upload multiple images.

Homework & Discussion, 10% of the Course Grade

Problems will be assigned from each section taught in lecture. You are required to finish most of the homework on WebAssign. For written assignments, you have to scan your work, merge all the images into one PDF document, and submit to Canvas.

For in-class discussion: students will be solving problems in groups, instructor will stop by each group to answer or ask questions. Points will be awarded based on the answers and participation.

For other discussion: topics will be posted on Canvas's "Discussion", follow the directions and write your response. These free-response discussions have no right or wrong answer. To receive full credits, you must reply to one other student's discussion.

The due date of all the assignment follows the U.S. Pacific Standard Time (PST).

Quiz & Pop Quizzes, 15% of the Course Grade

In-person quizzes will be given in during a lecture. Quiz topics will be announced in advanced.

You are expected to complete online quizzes on WebAssign/Canvas. Quiz is an individual assignment. You are required to do your own work. Group-work is strictly prohibited. *For online quizzes, show all your work in a separate piece of paper, take a picture of all the pages (or use a scanner to scan all the pages), merge all the pages into 1 PDF file, submit to Canvas.* For example, "Quiz 1" is an online quiz, and "Quiz 1P" is for submitting your paper work.

A random pop quiz may be given at the last 10 to 15 minutes of a lecture. Pop quiz is based on the materials covered within that lecture. You are allowed to use any notes to take the pop quiz. Be aware that pop quizzes are individual work. Since pop quizzes and time-sensitive, make-up assignment is not available.

The incident of falsifies information for financial aid is increasing in every school district. If you do not complete the first week's assignment or having no activities on Canvas, you will be dropped from the course.

Midterm, 40% of the Course Grade (4th and 8th week)

Every student is required to take the exam in class. For in-person online exams, please bring your fully charged tablet or laptop to class. For in-person written exam, bring your notes and calculator to class. You are allowed to bring 3 sheets (6 pages total, front of back) of notes. The size of the paper is 8.5 inches by 11 inches. The notes can be typed or handwritten. Sharing calculator, tablet, or laptop is strictly prohibited and considered as cheating. All the exams are individual work. Students who cheat, plagiarize or help someone else cheat will be given a zero on the exam, and this zero is irreplaceable, meaning that it will count toward your course grade.

Final Exam, 35% of the Course Grade

Week 12th; Monday, March 25th, from 11:30 AM to 1:30 PM

For in-person online exams, please bring your fully charged tablet or laptop to class. For in-person written exam, bring your notes and calculator to class. You are allowed to bring 5 sheets (10 pages total, front of back) of notes. The size of the paper is 8.5 inches by 11 inches. The notes can be typed or handwritten. Sharing calculator, tablet, or laptop is strictly prohibited and considered as cheating. All the exams are individual work. Students who cheat, plagiarize or help someone else cheat will be given a zero on the exam, and this zero is irreplaceable, meaning that it will count toward your course grade.

For Quizzes, Midterms, and Final
You must upload all your written steps to Canvas; otherwise, your score does not count toward your course grade.

Last Submission Policies

- **Every student can extend the due date of one homework.**
- **Every student can extend the due date of one quiz.**
- **The last homework and the last quiz cannot be extended.**
- **Your one-time extension must be redeemed within 7 days after the due date. For example, if homework 1 is due on October 1st at 11:59pm, the deadline to request an extension is October 8th at 11:59pm.**
- **All the written assignment cannot be extended.**
- **Midterm cannot be rescheduled or extended.**
- **Final exam cannot be rescheduled or extended.**

Check Points:

- Homework & Discussion 10%, Quiz & Pop Quiz 15%, Midterm 40%, Final 35%; Zero credit to all the late and missing work, no exception.
- For quizzes, midterms, and final, you must show all your work on paper and submit your work to Canvas. The score does not count toward your course grade if your work is missing.
- You are expected to check the due dates on your WebAssign account at least once a day to plan accordingly. Also, you are expected to check our Canvas page to see announcements and week module regularly.
- Comparing to homework, you will have at most 3 attempts on quizzes and exams. Please solve the problems on a separate sheet of paper and double-check your work before submitting your answer to WebAssign. Additional attempts will not be granted for any reasons.

Tutoring at the Student Success Center (SSC)
The Student Success Center (SSC) has moved services into virtual rooms via Zoom for all forms of tutoring and workshops. You can also get free math tutoring services in-person.
Please visit the following website for details and schedules.
https://www.deanza.edu/studentsuccess/mstrc/

Grading Rubrics

Your course grade will be assigned in the following standard:

A: 100% to 94%	A-: 93% to 90%	
B+: 89% to 86%	B: 85% to 83%	B-: 82% to 80%
C+: 79% to 75%	C: 74% to 70%	
D: 69% to 60%	F: below 60%	

All the cut-offs are not negotiable. For examples, 89% is not an A-minus and 69% is not a C. Transferring to UCs, CSUs, top-ranking universities, or scholarships are not a reason to ask for a higher grade.

Extra Credit Assignment

There are no extra credit assignments in this course to improve your grade. Please do not ask for any.

Academic Integrity

Academic dishonesty will not be tolerated. Any student attempting to defraud the instructor on a quiz, exam, final exam, or any other assessment item designated as an individual assignment will receive a zero on that assignment. This score is irreplaceable. If a cheating incident is detected on your work, the rest of your works in the course will be closely monitored and examined. All the assistant seekers and assistant providers will be reported to the college. *For example, bringing a quiz or an exam problem to a tutor is considered as cheating. Posting a quiz or an exam problem to websites such as Chegg, Course hero, or a forum is considered as cheating.*

Course Content

Chapter 1: Functions and Their Graphs
1.1: Rectangular Coordinates
1.2: Graphs of Equations
1.3: Linear Equations in Two Variables
1.4: Functions
1.5: Analyze Graphs of Functions
1.6: A Library of Parent Functions
1.7: Transformations of Functions
1.8: Combinations of Functions: Composite Functions
1.9: Inverse Functions

Chapter 2: Polynomial and Rational Functions
2.1: Quadratic Functions and Models
2.2: Polynomial Functions of Higher Degree
2.3: Polynomial and Synthetic Division
2.4: Complex Numbers
2.5: Zeros of Polynomial Functions
2.6: Rational Functions
2.7: Nonlinear Inequalities

Chapter 3: Exponential and Logarithmic Functions
3.1: Exponential Functions and Their Graphs
3.2: Logarithmic Functions and Their Graphs
3.3: Properties of Logarithms
3.4: Exponential and Logarithmic Equations
3.5: Exponential and Logarithmic Models

Chapter 7: Systems of Equations and Inequalities
7.1: Linear and Nonlinear Systems of Equations
7.2: Two-Variable Linear Systems
7.3: Multivariable Linear Systems
7.5: Systems of Inequalities

Chapter 9: Sequences, Series, and Probability
9.1: Sequences and Series
9.2: Arithmetic Sequences and Partial Sums
9.3: Geometric Sequences and Series

Chapter 10: Topics in Analytic Geometry
10.2: Introduction to Conics: Parabolas
10.3: Ellipses
10.4: Hyperbolas
10.5: Rotation of Conics

Academic Calendar:
January 8: First day of winter quarter
January 15 (Monday): Martin Luther King Jr. Holiday – no classes
January 20: Last day to add classes
January 21: Last day to drop classes without a W
February 16-19: President's Holiday – no classes
This affects Friday and Monday.
March 1: Last day to drop classes with "W"; please read the important notes below regarding the withdrawal policy. To withdraw from this class, go to portal where you register this class, change the status from "registered" with "withdraw". After you are done, please double-check your status.
Important Note: It is student's responsibility to drop or withdraw the class if that student decides not to finish the class. After the last day to withdraw is passed, student cannot withdraw from the class.
March 25 to 29: Final exams
For Instructors Only:
January 22nd (Monday): Census Day
Grades must be submitted by Wednesday, April 3rd, by midnight

The professor reserves the right to make changes to the syllabus, including project due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.

Student Learning Outcome(s):

• Investigate, evaluate, and differentiate between algebraic and transcendental functions in their graphic, formulaic, and tabular representations.
• Synthesize, model, and communicate real-life applications and phenomena using algebraic and transcendental functions.

Office Hours:

Email,By Appointment,In-Person	S76A	M,T,W,TH	10:00 AM	10:30 AM
Email,In-Person,By Appointment	S76A	M,T,W,TH	6:15 PM	7:15 PM