Division of Academic Enhancement
UNIVERSITY OF GEORGIA

UNIV 1110- Introduction to Pre-calculus
CRN 25380, Spring, 2023

Course Instructor Information
Instructor: Xuechao Li
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Office: 253 Milledge Hall
Office Hours: 1:00-2:00PM or by appointment

Course Meeting Information
Meetings: 10:20-11:10/MWF
Location: Journalism/514

UNIV Courses are offered by the Division of Academic Enhancement, a unit of the Office of Instruction at the University of Georgia.

The Division of Academic Enhancement empowers all students to **Learn Differently** through innovative courses, programs, services, and student-centered initiatives. The DAE supports students as they transition into higher education and sustains their progress through the University's unique academic environment.

Course Description
This class offers a complete review of algebra and problem-solving techniques to prepare students for pre-calculus. Topics include factoring, solving equations and inequalities, rational, radical, exponential, logarithmic functions, graphing techniques and basics of trigonometric functions.

Learning Objectives
Upon successful completion of this course, students will be able to:
performing mathematical operations with algebraic expressions, solving rational equations, first and second degree equations and inequalities, applying concepts of solving equations and inequalities to solve real world application problems. Students will also be able to demonstrate proficiency in: determining domain, range, and where appropriate, rational, square root and absolute value functions, translating between verbal, numeric, and algebraic forms of mathematical situations, including real world application problems basic trigonometric concepts.

Course Information
This course is designed for preparation for the Math 1113(pre-calculus). It helps students to build a strong foundation for the coming topics in pre-cal. It enables students to able to solve problems in following area: Linear equations, circles, distance, average rate of change, graph shifting, quadratic equations, inverse functions.

Assignments and Projects
Students will be evaluated in the following areas: participant in class learning, quizzes, chapter tests and final exam.
Grading/Evaluation
HW and Quizzes: 30%, Chapter tests: 40%, Final exam: 30%.

Chapter Tests: No-*Make-Ups*. There will be **three** tests that you will take during this semester. Your chapter tests are worth a total **40%** of your course grade. The final exam may be used to substitute *ONE* missing chapter test in the event of an excused emergency absence. An excused emergency absence will only be granted when you have notified me of the illness/emergency prior to the class meeting on the test day, and with a document excuse presented to me later. The exact dates of the tests will be announced in class.

Course Materials
Free online test book
https://openstax.org/details/books/precalculus
College Algebra (8th Edition), Larson.
ISBN:0618643109

Handouts will be delivered during class meeting and will be available on eLC.

Course Policies

UNIV 1110 consists of 4 chapters:
Chapter 1: (HW 1-5) Functions, domain& range, function values, linear functions, and circles.
Chapter 2: (HW 6-10) Operations on functions, graph properties, transformation, quadratic Functions and inverse functions.
Chapter 3: (HW 11-13) Exponential functions and logarithmic functions
Chapter 4: (HW 14-17) Introduction to trigonometry, graph of trig functions, and trig. equations.

Participation/Engagement Policy
[Faculty: You may want to use the word "participation" and/or "engagement" instead of the word "attendance" as a student can attend without being present/learning from the class. Also, consider including an inclement weather statement like the following:]

In the event that the university cancels classes, such as for severe weather, students are expected to continue with readings as originally scheduled. Any assignments scheduled during those missed classes, such as a project or paper, are due at the next class meeting unless other instructions are posted at the course website or communicated via email.

Disability Statement
If you anticipate issues related to the format or requirements of this course, please meet with me. I would like us to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with the

Disability Resource Center (Voice: 706-542-8719 or TTY: 706-542-8778) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

Academic Honesty Policy
As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: https://ovpi.uga.edu/academic-honesty/academic-honesty-policy. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Student Exceptionalities Statement
If you anticipate issues related to the format or requirements of this course, please meet with me. I would like us to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with the Disability Resource Center (Voice: 706-542-8719 or TTY: 706-542-8778) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

Student Wellness
If you (or anyone you know) experiences debilitating academic stress (i.e., stress that paralyzes, induces persistent fear/anxiety), challenging life events, persistent negative emotions/moods, or other factors that hinder mental, physical, or emotional wellbeing, I encourage you to seek resources you need to be successful.

University Health Center
- Website: https://www.uhs.uga.edu/newstudents/newstudents
- Phone: 706.542.1162
- Email: contact@uhs.uga.edu
- Suicide Prevention 706.542.2
- Sexual Assault 24 Hour Hotline 706. 542.SAFE200
- The University Health Center offers FREE workshops, classes, mentoring and health coaching led by licensed clinicians or health educators: https://healthcenter.uga.edu/bewelluga/

Counseling and Psychiatric Services (CAPS)
- Website: https://www.uhs.uga.edu/caps/welcome
- During office hours, you may call 706-542-2273.
- For an after-hour crisis, you may call 706-542-2200. Ask to speak with a CAPs clinician.

Student Care and Outreach
- Website: http://sco.uga.edu/
- Phone: 706-542-7774
- Email: sco@uga.edu

Student Veterans Resource Center
- Website: http://svrc.uga.edu/
- Phone: 706-542-7872
- Email: svrc@uga.edu

Other Division Resources
From peer tutoring through the Academic Resource Center to Academic Coaching to Student Success Workshops and more, the Division is committed to the success of all students at the University of Georgia. For more on these and other resources, visit https://dae.uga.edu.

Course Outline:

The schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better student learning. All readings are required unless otherwise noted. Students should read/know required material by the date listed, at which time we will discuss or use the scheduled readings in class.

Week	General Topic	Assignment/Projects
1 (January 9-13)	Syllabus, review algebra, equation solving basis.	Pre-test. Math knowledge testing
January 16	Martin Luther King Jr Day	
2 (January 17-20)	Identify Functions. Function values, Domain &range	HW 1_1
3 (January 23-27)	linear functions	HW 1-2
4 (Jan.30-Feb.3)	Distance, Circles	HW 1-3 Quiz
5 (Feb.6-10)	Operation on functions, function properties. Even, odd, piecewise functions.	HW 1_4
6 (Feb. 13--17)	Graphing& transformation	HW 2_1 Quiz
7 (Feb. 20-24)	Quadratic functions &its applications	HW 2_2, handout word-problems
8 (Feb.27-Mar.3)	polynomials & long division	HW 3_1,2& Cont. Handout word-Problems Quiz
(Mar. 6-10)	Spring Break	
9 (Mar.13-17)	Composite functions & Inverse functions Test 1	HW3_3,4 ,
10 (Mar.20-24)	Test explain &Pre-cal problem mine-storm	HW4_1,2 Quiz
11 (Mar. 27-31)	Exponential & Log functions	HW 4_3,4 Quiz
12 (Apr. 3-7)	Logarithmic function & its Properties	HW 5_1,2
13 (Apr.10-14)	Intro. To Trig. & Sine, Cosine	HW6_1,2 Review for Test
14 (Apr.17-21)	Unit circle & reference angles	HW6_3,4 Test 2
15 (Apr.24-28)	Trig equations & Trig. graphs.	HW6.5-6.6
16 (May1-5)	Review for final.	Handout for final review.

Note: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.