



## Division of Academic Enhancement UNIVERSITY OF GEORGIA

### **UNIV 2900: Preparation for Math 2250 Spring, 2023 Section 54339**

The last day to join this class is march 23<sup>rd</sup> by 5pm.

#### **Course Instructor Information**

Instructor: John Riggott  
Email: jriggott@uga.edu  
Phone: 706-870-3868  
Office: 251 Milledge Hall

#### **Course Meeting Information**

Meetings: MWR 10:20-11:10  
Location: MLC Room 251  
Thursday Lab 2:20-3:10  
Location: MLC room 368

#### **Student Hours:**

You may email me questions or use my number to call or text me questions at any time (please no calls after midnight) or you can join me for office hours during the following times:

Monday Thru Thursday nights from 10pm-midnight on my zoom page. Or by appointment

**UNIV Courses are offered by the Division of Academic Enhancement**, a unit of the Office of Instruction at the University of Georgia. The Division empowers all students to achieve success with 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. We are committed to students, committed to success.

#### **Course Description**

This class offers a review of selected topics from pre-calculus together with problem-solving techniques to prepare students to be successful in Math 2250 (Calculus I). Topics include solving a variety of equations, function notation, describing the behavior of a function from its formula or graph, performing transformations on common graphs, performing operations on functions including composition, a review of specific types of functions and their properties, finding and simplifying a difference quotient, solving multiple step application problems, and an introduction to limits and piecewise functions.

#### **Student learning outcomes**

At the end of the semester, a successful student will be able to:

1. Solve multiple types of equations using algebraic manipulation.
2. Review the graphs of the common functions and their transformations including the graphs of the six trigonometric functions.
3. Use a function's graph to:
  - a. Identify intervals where the function is increasing or decreasing
  - b. Identify extrema
  - c. Determine limits

- d. Identify points of continuity/discontinuity
  - e. Identify asymptotes
4. Given a function determine its domain, x and y intercepts, asymptotes, and find its difference quotient.
  5. Perform operations on functions including composition.
  6. Have a good understanding of the graphs and properties of linear, quadratic, exponential, logarithmic, polynomial, and rational functions.
  7. Set up solve multiple step application problems and rewrite a function in terms of one variable given a constraint.
  8. Find limits of functions from a graph including piecewise functions.

### **Assignments and Projects**

Students will be evaluated in the following areas:

#### **Homework:**

Homework will be assigned from the e-book and will be graded on a participation level. Homework will count for 10%

#### **Quizzes:**

You will have a quiz on most Friday's covering a problem or two from that week's homework. Your quiz average will count for 40% of your overall average. (Your two lowest quiz grades will be dropped)

#### **Tests:**

You will have three in class tests. Your test average will count for 30% of your overall grade.

#### **Final Exam:**

Your final exam which will be discussed later in the course will count for 20% of your overall grade. Your final exam score will replace your lowest test score assuming the exam is higher.

### **Grading/Evaluation**

90-100 = A, 85-89=B+, 80-84=B, 75-79=C+, 70-74=C, 65-69=D+, 60-64=D, 0-59=F.

### **Grade Appeal Process**

University of Georgia students have the right to appeal academic decisions. The burden of proof for an appeal rests with the student. The policies governing the process of appealing grades are covered in the Academic Affairs Policy Manual, General Academic Policy: Student Appeals ([Section 4.05-01](#)). All grade appeals must be initiated in writing to the instructor within one calendar year from the end of the term in which the grade was recorded. The process for appealing a grade in a UNIV course can be found at: <https://dae.uga.edu/courses/appeal-process/>.

### **Course Materials**

For this course you will need to access the free e-books using the links below. We will use the e-book to assign homework problems so that you may practice the concepts covered in class.

<https://openstax.org/details/books/college-algebra>

[https://cnx.org/contents/\\_VPq4foj@11.14:s\\_RCPZWY@29/Preface](https://cnx.org/contents/_VPq4foj@11.14:s_RCPZWY@29/Preface)

The required calculator for Math 2250 is the TI-30XS Multiview. You may use a TI-83 or TI-84 for my course but be aware that when you take Math 2250 you will only be able to use the TI-30XS Multiview so it may benefit you to stick to that calculator for this course as well.

### **Course Policies**

Please be considerate of the students around you and do not use your technology for anything non course related during class time. Checking text messages or email or working on other assignments during class is very distracting to your fellow classmates.

### **Participation Policy**

Since this is a math class that will build upon itself on a daily basis you are strongly encouraged to attend all meetings. If you have to miss a class or test please let me know as soon as possible so that I can get you any missed handouts or arrange for a make up test time.

### **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.

### **Diversity and Inclusion Statement**

In this classroom, you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class. (Source: modified from [https://docs.asee.org/public/LGBTQ/Diversity\\_Statement.pdf](https://docs.asee.org/public/LGBTQ/Diversity_Statement.pdf))

### **Announcements Policy**

I will make most announcements in class; I will send others to your UGA email. You are responsible for the content of all announcements, even if you miss class or fail to check your UGA email.

### **FERPA Notice**

The Federal Family Educational Rights and Privacy Act (FERPA) grants students certain information privacy rights. See the registrar's explanation at <http://apps.reg.uga.edu/FERPA/>

### **Course Evaluations**

I encourage you to complete the online evaluation near the end of the semester. Student evaluations of teaching are used by university administrators to evaluate instructional faculty. I also take your feedback seriously; note that it is delivered anonymously and is not visible to me until after I have submitted all final course grades.

### **Office of Student Care and Outreach**

If you have a personal crisis during the semester, you will want to contact the Office of Student Care and Outreach so that they can support you: <http://sco.uga.edu/sco/services-students>

### **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.

Week		General Topic
1	Jan. 9 <sup>th</sup> – 13 <sup>th</sup>	Syllabus, review of algebra: laws for exponents and solving equations
2	Jan. 16 <sup>th</sup> - 20 <sup>th</sup>	More on solving equations and using a constraint to remove a variable
3	Jan. 23 <sup>th</sup> - 27 <sup>th</sup>	Describing the properties of a function using its graph: domain, range , increasing, decreasing, extrema
4	Jan. 30 <sup>th</sup> – Feb. 3 <sup>rd</sup>	Finding function values form the equation <b>Test 1</b>
5	Feb. 6 <sup>th</sup> – 10 <sup>th</sup>	Drawing the common graphs with transformations
6	Feb. 13- 17 <sup>th</sup>	Operations on functions and finding inverse functions
7	Feb. 20 <sup>th</sup> – 24 <sup>th</sup>	Linear and quadratic functions
8	Feb. 27 <sup>th</sup> – mar. 3 <sup>rd</sup>	Polynomial and Rational functions
9	Mar. 6 <sup>th</sup> – 10 <sup>th</sup>	<b>Spring Break</b>
10	Mar. 13 <sup>th</sup> – 17 <sup>th</sup>	Exponential and logarithmic functions <b>Test 2</b>
11	Mar. 20 <sup>th</sup> – 24 <sup>th</sup>	Graphs of the six trigonometric functions
12	Mar. 27 <sup>th</sup> – 31 <sup>st</sup>	Setting up and solving multiple step real world application problems
13	Apr. 3 <sup>rd</sup> - 7 <sup>th</sup>	More practice with solving application problems
14	Apr. 10 <sup>th</sup> – 14 <sup>th</sup>	Average rate of change and the difference quotient <b>Test 3</b>
15	Apr. 17 <sup>th</sup> – 21 <sup>st</sup>	Using the graph of a function to find limits
16	Apr. 24 <sup>th</sup> – 28 <sup>th</sup>	Introduction to piecewise functions and their graphs
17	May 1	Review for the final

\*\*\* The withdrawal deadline is March 23rd.

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