

Math 1113-03 Precalculus Fall 2019

Instructor: Dr. David Leach
Location: MW Pafford 102; F Boyd 301
Time: MW 2:00-3:15; F 2:00-2:50
Office: 317 Boyd
Office Hours: See CourseDen
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Textbook: *College Algebra and Trigonometry, Abramson, Openstax*. Student can download for free at <https://openstax.org/details/books/algebra-and-trigonometry>. Go to Download a PDF and download the High Resolution version.

Courses Description: This course is designed to prepare students for calculus, physics and related technical subjects. Topics include an intensive study of algebraic and transcendental functions.

Tests: There will be four in-class tests worth 100 points each. Your lowest test score will be dropped. *Tentative* test dates are Wed Sept 11, Wed Oct 9, Wed Oct 30, and Fri Nov 22.

Ungraded Homework: Homework, usually from the textbook, will be assigned most days.

Graded Assignments: Graded assignments will be announced via courseDen. The announcement will contain a link to the assignment and a due date. Some assignments will be worth more than others. Your assignment average will be computed by taking your total points earned on the assignments divided by the total number of points available, and multiplying by 100.

Final Exam: There will be a comprehensive final exam worth 150 points.

Grade Calculation: Your course average will be computed by adding your three best tests, assignment average, and final exam; dividing by 5.5; and rounding to the nearest whole number. Letter grades are assigned as follows:

90-100: A 80-89: B 70-79: C 60-69: D 0-59: F

MyOpenMath: Some of the assignments will be done using <https://www.myopenmath.com/>. You will need to create an account there. It is free.

courseID: 52948

Enrollment key: LeachPrecal

Group Study and Other Available Help: There are many opportunities on campus available to help you succeed in this course.

- **Supplemental Instruction:** Carolyn Shields is our Supplemental Instructor. SI Sessions are Monday 5-6 and Thursday 4-5.
- **Math Tutoring Center:** Free walk-in help. Room 205 Boyd.
- **Group Study Sessions:** Weekly study sessions will be scheduled, and if you decide to do this, this is a **commitment** to attend the session as if it were a class. Group Tutor Elexus Reid.
- **One-on-one Tutoring:** Free one-on-one tutoring by appointment in the Center for Academic Success.

CourseDen: You should check courseDen every class day. Assignments will be posted there, and I plan to post my lecture notes there after each class.

Calculators: You'll need a scientific or graphing calculator. I may require you to clear the memory before each test. You can't use a CAS-capable calculator or a calculator app on a smartphone.

Attendance: You are expected to attend every class. Although absences are not formally penalized, if a class is missed, you are responsible for all materials and assignments.

Make-ups: In order to take a make-up test, you must have a valid reason for missing the test, contact me as soon as possible, and if at all possible take the test on or before the day of the next class.

Late Assignments: I will only accept one unexcused late assignment from each student throughout the semester. Late assignments will be penalized 10% per class day; no assignment will be accepted more than two class days after the due date. I may make an exception to this policy if you have extreme circumstances (e.g. hospitalization or extended documented illness).

Other Course Policies: Other course policies, including information regarding students with disabilities and the UWG Honor Code can be found at https://www.westga.edu/academics/assets/docs/Common_Language_for_Course_Syllabi.pdf. You should read this at the beginning of each semester.

Important Dates:

Last Day to Withdraw: Oct 9
Fall Break: Oct 3-4
Thanksgiving Break: Nov 25-29
Final Exam: Mon Dec 9, 2:00-4:00 pm

Learning Outcomes: Students should be able to demonstrate:

1. An understanding of functions and how to graph functions
2. An understanding of operations on functions including function composition
3. An understanding of types of functions.
4. An understanding of rational functions and their graphs, including intercepts and asymptotes
5. An understanding of how to find the zeros of a polynomial and how to factor polynomials
6. An understanding of inverse functions and how to find them graphically and algebraically
7. An understanding of the properties of exponential and logarithmic equations
8. An understanding of how to solve exponential and logarithmic equations
9. An understanding of how to find the values of the trigonometric functions from right triangles and circles
10. An understanding of how to graph the trigonometric functions
11. An understanding of how to prove trigonometric identities
12. An understanding of how to use the sum, difference, double-angle and half-angle formulas for sine and cosine
13. An understanding of how to solve trig equations
14. An understanding of how to solve triangle using the law of sines and law of cosines
15. An understanding of polar coordinates and graphs
16. An understanding of how to analyze and solve applied problems