Math 1113 Precalculus (40603) – Syllabus

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Welcome to the Spring 2017 section of Math 1113, *Precalculus*. The course is designed to offer a broad introduction to the topics necessary to succeed in calculus. We will examine a range of issues from the definition of function, exponential and logarithmic functions, and trigonometric functions. The goal is not to solve particular equations. Our goal is to understand the different techniques and approaches.

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

We will explore the following topics:

Topic	Important Ideas
Function	Determine the relationship between dependent and independent variables. Determine the range and domain of a given function.
Inverse Function	Determine an inverse function and relate it to the original function.
Exponential Functions	Define functions that model various phenomena and compare to other relationships such as linear and quadratic functions.
Logarithmic Functions	Relate logarithmic functions to exponential functions and solve equations with both exponential and logarithmic terms.
Trigonometric Functions	Relate trigonometric functions to the unit circle, define functions that model physical phenomena, solve equations with trigonometric terms, and define inverse functions for trigonometric functions.

Our evaluation is based on the following expectations:

Quality of Work	Expectations
Needs Improvement	Cannot identify basic equations Cannot determine solutions for basic systems of equations
Satisfactory	Can identify and solve all basic equations Can determine solutions of all basic equations
Good	Derive own systems Determine solutions and stability of own systems
Excellent	Tie together different concepts to solution techniques Can determine solution to any one system using a variety of techniques

Textbook: Swokowski-Cole, Precalculus: Functions and Graphs, 12th ed, Cengage Publishing. You can obtain electronic access to the book at a reduced cost at `http://www.cengagebrain.com/course/1870824` . The electronic version of the book will also give you access to WebAssign. If you require help please contact WebAssign technical support. You can use their webform at `https://webassign.com/support/student-support/` or call 1-800-955-8275, and choose option 1.

Web-page: : `http://www.math.uga.edu/1113`

Description: Preparation for calculus, including an intensive study of algebraic, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum/minimum problems, exponential growth and decay, and surveying problems.

A central idea is the definition of functions including the ability to work the range and domain of a function as well as the inverse. You should be able to work with exponential and logarithmic functions, be able to solve equations with exponents, and know the relationship between the exponential and logarithmic functions. You should be able to work with the definitions of the trigonometric functions, the unit circle, and be able to work with the inverses of the basic trigonometric functions.

Course Goals Be able to define functions that describe various physical phenomena. Be able to manipulate relationships to isolate particular quantities of interest. Demonstrate a working knowledge of the domain and range of a function and the relationship between the range and domain.

Meeting Times: We meet Tuesdays and Thursdays from *9:30am* to *10:45am* in *Aderhold 206*.

Attendance Students who have more than three unexcused absences will be withdrawn from the course with a grade of W before the midpoint of the term. After the midpoint for the term the grade will be an F. The three unexcused absences should only be used for emergencies, and you may be asked to verify the reason for an absence and demonstrate that it was an emergency and not due to a social or work commitment. If you repeatedly leave class early or arrive late it may be counted as an absence.

Announcements You are responsible for all announcements made in class regardless of whether or not you are in class. You should check with other people in the class. I will try to send announcements through UGA email.

Homework Homework will be assigned throughout the course. Most will be due on WebAssign. Do not expect to watch your professor work through a problem and then understand how to do it. Mathematics is best learned by doing it, and you should practice until you are proficient. It is no different than learning music or athletic skills.

Grading The final grades are calculated using the following distribution:

45%	4 Web Based Exams.
20%	Final Exam.
5%	Homework and WebAssign.
10%	Extended Problem Sets (WebAssign based)
10%	In-class quizzes
10%	In-class activities

At the end of the semester we assign letter grades as follows: 92% for an A, 89% for an A-, 87% for a B+, 82% for an B, 79% for a B-, 77% for a C+, 72% for an C, 69% for a C-, and %60 for a D.

If your final exam is higher than your lowest exam score from the first four exams, then the lowest exam score will be replaced with the final exam score. This is only an option for students who maintain good standing in the course and maintain regular attendance.

Testing The tests will take place in the Mathematics Department's computer laboratories. The tests will be given as a WebAssign assignment. You will have to sign to take each exam and will be required to show up and take the exam at the time you choose. You will be given information about how to sign up prior to the exam. On the exam you will have a limited number of tries for each question, and you will receive reduced credit for each time you provide an incorrect answer.

Extended Problem Sets In addition to the homework sets on WebAssign there will be extended problem sets. The extended problem sets have problems that are more difficult than the regular homework sets and are more like the tests. Each question will only allow for a limited number of tries, and you will receive reduced credit for each time you provide an incorrect answer.

Calculator Policy The recommended calculator for the course is the TI-30X IIS. It is available at the book store, many retail outlets, and many on-line sites. You should not use a calculator that can perform any basic algebra steps. You can use a TI-84 in class but cannot use it on quizzes or tests.

Make up Policy The right to miss a scheduled exam and take a make up exam can be awarded only by your professor, and will be awarded rarely and only for a serious cause. **Do not count on being able to make up a test until you have explicit permission from your professor.** If for some reason you must miss an exam, you must apply in writing **before** the exam. Include your local address, phone number, and reason with written documentation attached. If you are unable to attend the exam due to an emergency that day you must contact the professor as soon as possible and provide documentation to confirm why you cannot take part in the exam. An unexcused absence will result in a grade of zero on the exam.

Grading If you submit work after a deadline without obtaining permission then you will not receive any credit for the assignment.

Questions about grading of any work should be submitted to your professor within three working days of the return of the work. It is best if you write down the question and attach it to your graded work, otherwise we are likely to forget the details of your question.

Academic Accommodations If you require any kind of special accommodation please see your professor. Requests for academic accommodations should be made as soon as possible and at least one week prior to a graded activity to insure that we provide the proper resources. Students must register with the Disability Resource Center, to verify their eligibility for appropriate accommodations.

Quizzes There will be brief, unannounced in-class pop quizzes throughout the semester. Up to 90% of missed points can be made back through revision during office hours.

Homework Most homework problems will be due on WebAssign. The details can be found on WebAssign. Please pay close attention to the due dates posted on Webassign.

WebAssign You will have an account set up for you on Webassign, `https://www.webassign.net/login.html`. The user name is your regular UGA id. The institution is "uga." You should have received an email from WebAssign that has the details about how to use your account. Be aware of that we will not be available to answer questions about the content after 5:00pm. Do not wait till the last minute to do your work. If you have a problem with the website please make use of the help resources at WebAssign.

Office Hours We will announce office hours when they have been determined. Meetings can also be arranged by appointment.

Academic Integrity As a University of Georgia student, you have agreed to abide by the Universitys 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.

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