

# MATH 1110: PRECALCULUS I

UVa-Wise. Department of Mathematics and Computer Science. Fall 2016.

## BASIC INFORMATION

Class meetings: Section 1: Monday, Wednesday, Friday, 8:00–8:50, in Darden 114;

Section 2: Monday, Wednesday, Friday, 12:00–12:50, in Darden 118

Instructor: Dr. Matthew Harvey

Office: Darden Hall 235

Office phone: 276-376-4571

Office hours:

- Monday 9:00–11:00
- Tuesday 8:00–11:00
- Wednesday 9:00–12:00
- Thursday 8:00–11:00
- Friday 9:00–11:00

Email: [msh3e@uvawise.edu](mailto:msh3e@uvawise.edu)

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## COURSE DESCRIPTION

The prerequisite for this course is satisfactory performance on the placement test or successful completion of Math 1000 or Math 1010 with a grade of C or better.

This is the first course in the pre-calculus sequence. The ultimate goal of this sequence is to give you the computational skills and theoretical background needed to succeed in calculus. In this course we will study several important classes of functions: polynomials, rational functions, exponentials and logarithms. We will study these functions from different perspectives: their algebraic properties, their graphs, and their applications. In more detail, course topics will include:

- modeling with functions

- linear and quadratic functions
- quadratic inequalities
- polynomials functions
- zeroes of polynomials
- rational functions
- rational inequalities
- exponential functions
- logarithmic functions
- algebraic properties of logarithms
- graphs of logarithms
- logarithmic and exponential equations
- applications of logarithms and exponential functions

The textbook for this course is *Precalculus*, 10th ed., by Michael Sullivan. We will cover the material from section 2.6 through section 5.9 of this book.

## THE EVERYDAY CLASS

Your presence in class is expected. In class, you are expected to pay attention and contribute. At the very least, you must not be a distraction to your fellow classmates. Please silence all electronic devices. Disruptive behavior will not be tolerated. If I feel that you are a distraction to the rest of the class, I will ask you to leave.

## GRADES

Your daily progress will be monitored in several ways. First, you will have homework assigned through MyLab, an online component of our textbook. Second, for sections where the online assignment is not sufficient (such as graphing), you will be assigned homework from the book. Third, you will take periodic in-class quizzes. We will cover a lot of material in this class, and

it is imperative that you do not fall behind. To be successful, you should expect to spend at least six hours per week outside of class working on these problems.

During the semester there will be three in-class tests (see the attached schedule). They are tentatively scheduled for the weeks of September 12, October 3, and November 14, although the exact dates are still to be decided. A typical test will consist of approximately 15 short answer questions.

- No make-up exams will be given unless you can present a valid documented excuse. In this case, you will either take a make-up exam or be given a grade based on other assignments, whichever I feel is more appropriate.
- Your final exam grade may be used to replace your lowest test grade.
- At the end of the semester you will have a comprehensive final exam.
- Course grades will be assigned according to these percentages:
  - homework and quizzes: 20%
  - tests: 60%
  - final exam: 20%

#### DISABILITY SERVICES

If you need course adaptation or accommodation because of a disability or if you have emergency medical information to share with me, please make an appointment to talk with me as soon as possible. To make inquiries regarding disability services, please contact Whitney Wells, Director of Disability Services, at 276-328-0265

or [wew3x@uvawise.edu](mailto:wew3x@uvawise.edu), or visit the Academic Support Center in Zehmer Hall.

#### TITLE IX

The University of Virginia's College at Wise strives to provide a working and educational environment for all faculty, staff and students that is free from sexual misconduct and harassment. Sexual harassment, sexual assault and other acts of sexual misconduct are forms of sex discrimination prohibited by Title IX. The College reaffirms its commitment to maintain a campus environment emphasizing the dignity and worth of all members of the college community. To view UVa-Wise's sexual misconduct and harassment policy visit: [www.uvawise.edu/compliance/TitleIX](http://www.uvawise.edu/compliance/TitleIX). If you have questions or concerns, please immediately contact:

Tabitha Smith, Title IX Coordinator  
Office of Compliance and Conduct  
1 College Avenue, Wise, VA 24293  
Office: 276-328-0131  
Cell: 276-870-5065  
Fax: 276-376-4876  
Email: [tabitha.smith@uvawise.edu](mailto:tabitha.smith@uvawise.edu)

#### CHEATING

Cheating will not be tolerated. Any student caught cheating will receive a zero on the assignment, will be reported to the Honor Court, and if found guilty may receive an F for the course.

## MATH 1110 FALL 2016 TENTATIVE SCHEDULE

Week Starting	Topics	Sections
22-Aug	Mathematical models	2.6
29-Aug	Linear functions Linear models	3.1, 3.2
5-Sep	Quadratic functions Quadratic models	3.3, 3.4
12-Sep	Quadratic inequalities <b>Test 1</b>	3.5
19-Sep	Polynomials	4.1
26-Sep	Rational functions Graphs of rational functions	4.2, 4.3
3-Oct	<b>Test 2</b>	
10-Oct	Fall Break	
17-Oct	Rational inequalities Zeroes of polynomials	4.4, 4.5
24-Oct	Composite functions Inverse functions	5.1, 5.2
31-Oct	Exponential functions Logarithms	5.3, 5.4
7-Nov	Properties of logarithms Logarithmic, exponential equations	5.5, 5.6
14-Nov	<b>Test 3</b>	
21-Nov	Financial models	5.7
28-Nov	Exponential and logarithmic models	5.8
5-Dec	Exponential and logarithmic models	5.9