Math 222 PreCalculus

Fall 2013

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Textbook: Precalculus: an investigation of functions by David Lippman and Melonie Rasmussen

This is an open textbook, which means you can download it for free, buy it printed and bound online, or buy a printed and bound copy in the bookstore. You can download it or buy it online at http://www.opentextbookstore.com/precalc/

Homework website: Also Free ☺ ! Information for getting started is at the end of the syllabus.

Calculator: You will need a graphing calculator. If you don't have one already I recommend the TI-83 or 84 because these are the most common types required in other classes.

Coverage

We will be covering chapters 1 to 8. The best way to describe this class is that we review both algebra and trigonometry with a strong focus on functions and the use of function notation.

Student Learning Outcomes (SLOs) for the course include:

1. Recognize and classify a function from an equation, graph, or table
2. Identify and apply transformations to functions and graphs, including vertical and horizontal shifts, reflections, and scaling.
3. Describe the short run and long run behavior of polynomial and Rational functions.

Types of Assignments

Homework (20% of the grade): Homework will be done at www.myopenmath.com . Sets of homework will be due on Monday following the week they are assigned.

Homework Notebook: As you work on the problems online you will need to do all of your work in a spiral notebook. Each section should be labeled and the notebook will be checked each time you take a test. The notebook will be graded for completeness and organization each time we take a test in class.

Quizzes (5% of the grade): There will quizzes given in class and online. Quizzes will always be announced a day in advance. There are no makeup quizzes, but the lowest score will be dropped.

Tests (50% of the grade): I have tentatively scheduled 8 tests (2 online and 6 in class). After each in class test you will be given an opportunity to correct the problems you missed and earn back some of the points that you missed. The in class tests are each weighted twice an online test. Tests scheduled as in class tests may include online or take home parts.

Missed tests: If you miss the deadline for an online test, then you may take it within one week of the original due date with a 30% penalty. You may do this once during the semester.

There are no make ups for missed in class tests. If you miss an in class test , then you will get the score you get on the written final minus 10% substituted for the missed test. A second missed in class test will be given a score of zero

Final Exam (25% of the grade) : The final exam consists of 2 parts

Part 1: Hours by Arrangement and Portfolio Problems: To meet the hours by arrangement requirement you will work on a set of problems in the learning center. Your work on these problems will be put together into a portfolio to be collected on Monday December 9th . The portfolio will be worth 1/4 of the final exam and be graded on accuracy, neatness, completeness, organization, and the completion of at least 16 hours in the learning center. Late portfolios will be penalized 30%

Part 2: In Class Final Exam: The in class final exam is comprehensive, worth 3/4 of the final exam grade, and scheduled for Monday December 16th 11:10 – 1:40. There is no makeup for the final.

Grades

Grades are based on the percentage earned

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

Incompletes will not be given unless you have completed at least 75% of the class and have a chance of passing the class with a C or better once the work is completed.

Tentative Schedule: The schedule should not be considered exact, but rather give you an idea of the pace for the course. I will always announce the exact test days at least a week before the test date.

Week	Date	Topic
1	19-Aug	Introduction
	20-Aug	1.1 Functions, notation
	21-Aug	1.2 Domain and Range
	22-Aug	1.3 Rates of change
2	26-Aug	1.4 Composition
	27-Aug	1.5 Transformations of functions
	28-Aug	1.6 Inverse functions
	29-Aug	**Review - Online Test Chapter 1**
3	2-Sep	**Holiday - Labor Day**
	3-Sep	2.1 Linear functions
	4-Sep	2.2 Graphs of linear functions
	5-Sep	2.3 Modeling with linear functions
4	9-Sep	2.3 Modeling with linear functions
	10-Sep	2.4 Fitting linear functions to data
	11-Sep	2.5 Absolute Value functions
	12-Sep	Review
5	16-Sep	**Test 2 - In class Chapters 1 and 2**
	17-Sep	3.1 Power functions and polynomial functions
	18-Sep	3.2 Quadratic functions
	19-Sep	3.3 Graphs of polynomial functions
6	23-Sep	TBA
	24-Sep	3.4 rational functions
	25-Sep	3.5 Inverses and radical functions
	26-Sep	Review
7	30-Sep	**Test 3 - In Class Chapter 3**
	1-Oct	4.1 Exponential Functions
	2-Oct	4.2 Graphs of exponential functions
	3-Oct	4.3 Logarithmic functions
8	7-Oct	4.4 Logarithmic properties
	8-Oct	TBA
	9-Oct	4.5 Graphs of logarithmic functions
	10-Oct	4.6 Exponential and logarithmic models
9	14-Oct	4.7 Fitting exponentials to Data
	15-Oct	Review
	16-Oct	**Test 4 - In Class Chapter 4**
	17-Oct	5.1 Circles
10	21-Oct	5.2 Angles
	22-Oct	5.3 Points on circles using Sine and Cosine
	23-Oct	5.4 Other Trigonometric Functions
	24-Oct	5.5 Right Triangle Trigonometry
11	28-Oct	**Review, Online Test Chapter 5**
	29-Oct	6.1 Sinusoidal Graphs
	30-Oct	6.2 Graphs of other trig functions
	31-Oct	6.3 Inverse Trig functions
12	4-Nov	6.4 Solving Trig equations

	5-Nov	6.5 Modeling with Trig equations
	6-Nov	Review
	7-Nov	**Test 5 - In Class Chapters 5 and 6**
13	11-Nov	Holiday - Veteran's Day
	12-Nov	7.1 Solving trig equations with identities
	13-Nov	7.2 Addition and subtraction identities
	14-Nov	7.3 Double angle identities
14	18-Nov	**7.4 Modeling changing amplitude and midline**
	19-Nov	**Review, Online test Chapter 7**
	20-Nov	8.1 Law Sines and Cosines
	21-Nov	8.2 Polar Coordinates
15	25-Nov	8.3 Polar form of Complex Numbers
	26-Nov	8.4 Vectors
	27-Nov	8.4 Vectors
	28-Nov	Holiday - Thanksgiving
16	2-Dec	8.5 Parametric Equations
	3-Dec	Review
	4-Dec	**Test 6 - In Class Chapters 7 and 8**
	5-Dec	TBA
17	9-Dec	TBA/ **Portfolio Due**
	10-Dec	Review
	11-Dec	Review
	12-Dec	No Class
		Final Exam Monday Dec 16th 11:10 - 1:40

Accessing Online Homework in MyOpenMath

1) Open up your web browser (like Internet Explorer)
2) Enter the address: **www.myopenmath.com**
3) Click "Register as new user"
4) Enter the requested information and press "Sign-up"

In addition to the information about you, they will ask for a Course ID and Enrollment Key

Course ID: **1242**

Enrollment key: **canadacollege**

5) You will be taken back to the login page. Enter your username and password you selected
6) The course name (Math 222 – PreCalculus fall 2013) will now show up in the "Courses You're Taking" box on your home page. Click on the course name to enter the course.

The next time you want to access the course, you will just need to enter your username and password at the login page, then click on the course name to re-enter the course.