

PORTLAND COMMUNITY COLLEGE

# MTH 112: Elementary Functions

Online Course  
Spring 2017

**INSTRUCTOR:**

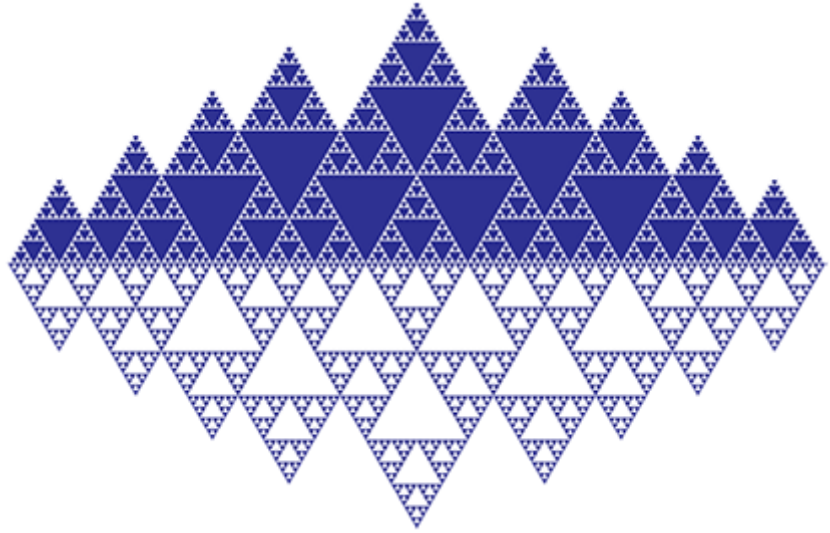
Peter Haberman

**OFFICE:**

Sylvania  
Campus, ST 203

**EMAIL:**

Please use the  
email tool inside  
Desire2Learn  
(D2L) to  
communicate  
with the instructor  
during the  
quarter.



**COURSE DESCRIPTION:**

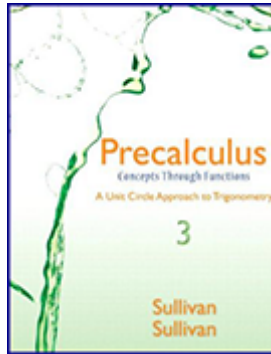
MTH 112 is specifically designed for those students going on through the Calculus series. Applications of trigonometric functions and identities, right and oblique triangles, vectors, polar coordinates, parametric equations, and complex numbers will be investigated.  
[www.pcc.edu/ccog/default.cfm?fa=ccog&subject=MTH&course=112](http://www.pcc.edu/ccog/default.cfm?fa=ccog&subject=MTH&course=112).

**PREREQUISITES:**

WR 115, RD 115, and MTH 111.

## TEXTBOOK:

*Precalculus: A Unit Circle Approach to Trigonometry, 3rd edition,*  
Sullivan & Sullivan.



## TECHNOLOGY:

This is an online course, so you must have regular access to a computer that is connected to the Internet.

To complete the worksheets, you will need access certain software and/or be able to print and scan documents. See the section titled "Worksheets" in this Syllabus as well as the folder in the Discussions board titled "Worksheets Info."

All MTH 112 classes at PCC require a graphing utility, and the **TI-89** or the **Casio Classpad** graphing calculators are officially recommended. Since you are interacting with this course via a computer, you are welcome to use computer software (like the free WinPlot for PC's) that enables you to graph algebraic functions and to perform calculations instead of a graphing calculator. I should mention examinations will NOT be oriented to the calculator and it is therefore entirely possible to do very well in this class without a calculator. In fact, **you will not be allowed to use a calculator on the Midterm Exam** (but you will be allowed to use a calculator on the Final Exam so you should have a graphing calculator).

## CALENDAR:

The course-calendar is available in the **Calendar** link in the navigation bar. For the most part, this course is organized by weeks. Each week starts on Monday and ends the following Sunday. For each week, a few chapters of online lecture notes are assigned (available in the **Lecture Notes** link in the navigation bar), a list of appropriate practice problems

from the textbook are suggested, and one short online quiz is due. In addition to these weekly activities, there will also be four worksheets, one Midterm Exam, and one Final Exam. (There won't be a quiz during the weeks of the Midterm and Final Exams.)

## EXAMS:

There will be one two-hour Midterm Exam and one two-hour cumulative Final Exam. These are proctored paper-and-pencil exams. See the **Calendar** for the scheduled exam dates at the Sylvania Campus. If you cannot make these scheduled testing times, you can make alternative arrangements to take the exam at a college testing center (either at PCC or any other college) within a few days of the scheduled exam dates. (A few weeks before the Midterm, I'll post a message in the Discussions board that will explain how to make alternative testing arrangements.) You must have alternative testing times approved a few days before the scheduled exam date. Your study of the online lecture notes and your practice of assigned exercises from the textbook will best prepare you for the exams. (Before each exam, I will distribute an additional problem-set to help you prepare.)

## QUIZZES:

There will be eight short quizzes during the quarter (available in the **Quizzes** link in the navigation bar), and your best seven quiz scores will count towards your final grade (so I will "drop" your lowest quiz score). See the **Calendar** for the due-dates for the quizzes. The quizzes will be made available on Sunday (the first day of each week) and must be completed by 11:59pm on the following Saturday (the last day of each week). Quizzes will consist of eight multiple-choice questions that you will answer online. You will be allowed 60 minutes for each quiz, and you will get only one attempt at each quiz. Before attempting quizzes, study the lecture notes assigned for that week and the corresponding Extra Practice problems and suggested practice problems from the textbook.

## WORKSHEETS:

There will be eight short worksheets during the quarter (available in the **Assignments** link in the navigation bar), and your best seven worksheet scores will count towards your final grade (so I will "drop" your lowest worksheet score). The due-dates are given in the Calendar. These worksheets will consist of "free-response" problems (as opposed

to the multiple-choice style questions in the quizzes) that you'll be expected to communicate your answers using meaningful mathematics and proper notation. You will need to submit these worksheets electronically, either with an MS Word doc in which you've used the equation editor MathType to compose your math, or with a PDF scan of your neatly hand-written work. See the topic "Worksheet Info" in the Discussions board for more information about the Worksheets.

An important purpose of these assignments is to make sure that you are communicating mathematics correctly so it is crucial that you use **proper mathematical notation** while completing them. (We could just have more multiple choice quiz questions if the only thing we were concerned about were obtaining correct answers.) A good guide for proper mathematical notation is the online lecture notes: mimic the organization of the provided examples and you should do well!

### EXTRA PRACTICE PROBLEMS:

For almost every chapter of online lecture notes, I've provided some extra practice problems along with their solutions (linked from the **Calendar** and available on the **Lecture Notes** page linked in the navigation bar). I strongly suggest you practice and study these problems.

### PROBLEMS FROM TEXTBOOK:

For almost every chapter of online lecture notes, I've provided a list of problems from the textbook (given in the **Calendar**) that I strongly suggest you practice and study. The solutions to most of these problems can be found in the back of the textbook.

### EXTRA HELP:

I will do my best to answer all questions sent to me via the online Discussions board. I'll always try to respond to your questions within 24 hours but I will not be available 24/7 so please try to be patient. But you can also get lots of great help from your classmates. One of the best ways to learn is to hear the questions other students have and to either answer the questions or listen to how other students answer the questions. In other words, having a dialogue about what you're trying to learn can greatly improve your understanding. So I sincerely hope that you will utilize the Discussions board.

If you would like to come to a PCC campus for free math tutoring, you can get information about the options at our different campuses at this website: [www.pcc.edu/resources/tutoring/](http://www.pcc.edu/resources/tutoring/).

## POINTS:

<b>Total:</b>	<b>390 points</b>
Final Exam	150 points
Midterm Exam	100 points
Worksheets	84 points (7 @ 12 points each)
Quizzes	56 points (7 @ 8 points each)

## GRADES:

**A:** 90-100%,    **B:** 80-89%,    **C:** 70-79%,    **D:** 60-69%,    **F:** below 60%

Instead of a letter grade, you may choose a Pass/No-Pass grade or you can Audit the class:

- To obtain an **AUDIT** (AUD) “grade” for the course, you need to get the instructor’s permission before **5 pm on Friday, April 7**. You will not receive credit for the course if you take an audit.
- You may opt for a grade of **PASS/NO-PASS** (P/NP) for this course. (Consult your advisor to determine if PASS/NO-PASS is allowed for your major.) To obtain a PASS/NO-PASS grade, you need to select that grading option in the registration section of MyPCC before **10 pm on Saturday, May 27**.

## IMPORTANT DEADLINES:

- The deadline for **dropping** (so that the course won't appear on your transcript) **10 pm on Sat., April 8**.
- The deadline for **withdrawing** (so that a “W” will appear on your transcript) is **10 pm on Sat., May 27**.

## PCC STUDENT RIGHTS & RESPONSIBILITIES:

The [Student Rights & Responsibilities Handbook](#) includes students' freedoms and protections as well as expectations of appropriate behavior and ethical academic work, such as the Code of Student Conduct and the Academic Integrity Policy. All students are required to comply with the Handbook.

## **PCC GRADING GUIDELINES:**

[www.pcc.edu/resources/student-records/grading/](http://www.pcc.edu/resources/student-records/grading/)

## **ADA STATEMENT:**

Students who experience disability-related barriers should contact Disability Services. If students elect to use approved academic adjustments, they must provide in advance formal notification from Disability Services to the instructor. Learn more here:

[www.pcc.edu/disability](http://www.pcc.edu/disability).

## **TITLE IX STATEMENT:**

Portland Community College is committed to creating and fostering a learning and working environment based on open communication and mutual respect. If you believe you have encountered sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, veteran status, sex, sexual orientation, gender identity, or disability please contact the Office of Equity and Inclusion at 971-722-5840 or [equity.inclusion@pcc.edu](mailto:equity.inclusion@pcc.edu).