

Course Syllabus

Portland Community College | 12000 SW 49th Ave, Portland, OR 97219 | (971) 722-6111

This syllabus introduces you to the goals of the course and how we will be working together this term. Please read it carefully and contact me if you need further clarification.

Course Information

- Course Title: Precalculus I: Functions
- Course Number: MTH 111Z
- CRN: 11221
- Credits: 4
- Term and Year: Winter 2026
- Prerequisites: MTH 95 and (RD 115 and WR 115) or IRW 115 or equivalent placement.
- Class Meetings & Times: Tuesdays and Thursdays, 9:00AM - 11:50 AM
- Modality / Location: In Person, TABOR 143, Southeast Campus

Instructor Information

- Instructor: Miranda Ramsey
- Email: miranda.ramsey@pcc.edu
- Phone: 971-722-3542
- Office Location: Southeast SCOM 214
- Office Hours: Mondays and Wednesdays 12-1, or by appointment
- School Address: Portland Community College, 12000 SW 49th Ave., Portland, OR 97219

Course Description

A course primarily designed for students preparing for trigonometry or calculus. This course focuses on functions and their properties, including polynomial, rational, exponential, logarithmic, piecewise-defined, and inverse functions. These topics will be explored symbolically, numerically, and graphically in real-life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology. This course is part of Oregon Common Course Numbering. MTH 111 and MTH 111Z are equivalent at PCC. The PCC Mathematics Department recommends that students take MTH courses in consecutive terms. Audit available. Read the [Course Content and Outcomes Guide here](#).

Learning Outcomes

Upon successful completion of this course, students should be able to:

- Explore the concept of a function numerically, symbolically, verbally, and graphically and identify properties of functions both with and without technology.
- Analyze polynomial, rational, exponential, and logarithmic functions, as well as piecewise-defined functions, in both algebraic and graphical contexts, and solve equations involving these function types.
- Demonstrate algebraic and graphical competence in the use and application of functions including notation, evaluation, domain/range, algebraic operations and composition, inverses, transformations, symmetry, rate of change, extrema, intercepts, asymptotes, and other behavior.
- Use variables and functions to represent unknown quantities, create models, find solutions, and communicate an interpretation of the results.
- Determine the reasonableness and implications of mathematical methods, solutions, and approximations in context.

For more information, please go to the [Course Content and Outcome Guide](#) for this course.

Instructional Materials

Textbook(s)

- Our primary textbook will be [Openstax Algebra and Trigonometry 2e](#) . This is a free textbook you can access online. You may purchase a paper copy for a small price, if you want.

Supplies

In this class, you will need:

- Pencils with erasers
- Note paper of your choice
- [Engineering paper](#) for completing your homework write-ups
- Ruler, straightedge, or protractor for drawing neat graphs. The bookstore has a bunch of nice options.

Software/Hardware/Equipment

We will be using a number of free software options in this class. To access these outside of our classroom, you will need to have access to a personal computer with a recommended browser installed. We will be accessing the following:

- [D2L Brightspace](#), our primary learning platform with PCC,
- [Desmos](#), a free online graphing calculator,
- [MyOpenMath](#), where you will complete weekly homework assignments and quizzes, and
- [Amplify Classroom](#), where we will occasionally complete lab activities.

Please visit the technology support section of [Student Support Resources](#) for a complete list of apps and tools for PCC students.

Technical Expectations

The technical requirements for the course include:

- [Technology Requirements for taking an online course at PCC](#)

- [A recommended Internet Browser installed](#)
- [Ability to use Google Drive and Google Docs](#)
- Webcam and/or microphone for meetings and online appointments

Accessibility

This course uses digital courseware, software, or texts that may cause barriers for those using assistive, or accessibility-related technologies. If you encounter barriers, please contact the Access Tech Team at access-tech-group@pcc.edu or by calling 971-722-TECH (971-722-8324).

Attendance & Participation

Students are expected to attend each scheduled class period. Credit will be given each day for:

- Arriving on time with all necessary materials. (2 points)
- Engaging with the group during the lab portion. (2 points)
- Staying for the full duration of the class. (1 point)

First Week Activities

During the first week of the term, instructors must record students who are not in attendance or engaging in the class. Students who have not done the following will be dropped according to PCC's [G302 Grading Guidelines policy](#).

- In order to avoid being dropped as a "No Show" student, you must complete the following activities by their deadlines:
 - Attend all of the first days of class up to the drop deadline.
 - Enroll in the MyOpenMath course and complete the first week's assignments.
 - Complete and submit the first week's lab assignments.

If you are unable to complete one of these requirements but want to remain enrolled in the class, you must speak with me to make an alternative arrangement to show engagement in the course.

Graded Assignments & Feedback

For more information, please go to the [PCC Grading Guidelines](#).

Attendance

Each day of class you will receive a grade based on arriving on time, having all of your required course materials, engaging and participating during the lab time, and staying until the end of class.

Homework

Each week will have a homework assignment on MyOpenMath (often split into two question sets, e.g. Homework 1a and Homework 1b) and a quiz. You will complete the homework in two parts.

1. First, you will answer the questions in MyOpenMath. The questions are set up to give you as many chances as you need to get the right answer. Many questions have supportive videos or

explanations to help you through the problem, or another one like it. You can keep trying until you get all of the answers right.

2. Once you have gotten all of the correct answers, you will complete a homework write-up on paper. See the homework and lab guidelines below for instructions for completing the homework write-up.

Quizzes

Quizzes are available to help you prepare for the exam. You are encouraged to do quizzes without book, notes, or other outside help. You may take the quiz up to three times, keeping the highest score.

Lab Work

Each day after a lecture covering the material, you will complete an activity with your group. For full credit, you will write up a conclusion to the activity using the same guidelines as the homework and submit at the end of class. See the homework and lab guidelines below for instructions for completing the lab write-up.

Exams

There will be two exams. The midterm exam will be on February 5 during our normal class time. It will cover functions in general. The final exam will be on March 17 during our normal class time. It will cover exponential functions, logarithmic functions, polynomials, rational functions, and models. Exams are closed book and no notes. Scientific calculators will be allowed for making small calculations.

Late Work & Make-up Policy

Students are expected to complete all assignments on pace with the course. However, I understand that external things get in the way. On MyOpenMath, students are given six "latepasses" which they may use to apply extensions to their work.

All homework assignments must be completed before the final exam, regardless of late passes. For assignments without late passes, I will consider giving up to 1 week extension when requested before the original due date of the assignment. If you must miss an exam, you must arrange a make-up exam with me before the day of the exam..

Grading Criteria

Please read over all assignments and discussion prompts in advance and reach out if you have any questions or if you want to confirm you understand them correctly. Clarifying questions will help you avoid deductions in your grades. Learn more about the [Grading Guidelines at PCC](#).

Instructors: Edit table as needed.

Activities	Number	Weight %
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Attendance	21	5%
Lab	17	20%
Homework	9	25%
Midterm Exam	1	25%
Final Exam	1	25%
Total		100%

Grading Scale

Letter Grade	Grading Scale by Percentage
A	90 - 100%
B	80 - 89%
C	70 - 79%
D	60 - 69%
F	< 59%

PCC Policies and Deadlines

Visit the [PCC Policies](#) page for information on:

- Academic Integrity Policy
- Accessibility Statement & Resources
- Drop/Withdraw Deadlines
- Grading Policy
- Internet Etiquette
- PCC Payment Policy
- PCC Registration Policy
- Sanctuary College
- Student Rights and Responsibilities
- Title IX/Non-Discrimination

Drop/Withdraw Deadlines

A student is responsible to add/ drop/ withdraw classes. Please review [PCC Registration Policy](#) for more information.

Add and Drop Deadlines

- Students need to register online via MyPCC. Please review the [Online Registration Instructions](#) to find out how.
- For 8-12 week classes, students need to drop out by the end of the first week of classes. Students can view course specific deadlines from the MyPCC Home tab, 'View My Drop & Withdraw Dates' link.
- For late add, students must add within two business days of the course drop deadline.

Accommodations and Services

PCC is committed to supporting all students. If you plan to use academic accommodations for this course, please contact your instructor as soon as possible to discuss your needs. Accommodations are not retroactive; they begin when the instructor receives the “Approved Academic Accommodations” letter from you (submitted in person for courses on campus; via email for Online Learning courses). To request academic accommodations for a disability, please contact an Accessible Education & Disability Resources counselor on any PCC campus. Office locations, phone numbers, and additional information may be located on the [Accessible Education & Disability Resources website](#).

Student Rights and Responsibilities

Students are required to complete this course in accordance with the [Student Rights and Responsibilities Handbook](#). The Handbook establishes students' freedoms and protections as well as expectations of appropriate behavior and ethical academic work. The Handbook includes items such as the Policy on Student Rights, and the Student Code of Conduct Policy and Procedures.

Generative AI Statement

The use of generative AI tools, including but not limited to ChatGPT, to complete your work is strictly prohibited and will be considered equivalent to unauthorized sharing of work or plagiarism. **All AI use is strongly discouraged, even as a study tool.** I want to help you build a strong internal understanding of the material without relying on outside tools. If you have a question or need help, please reach out to me instead. In return, **I promise that I will not use generative AI in my relationship with you as your instructor.** Any feedback you receive on your work will be my authentic human response to you.

Academic Integrity (rules about cheating, plagiarism, or sharing work)

The handbook contains the Code of Student Conduct and the Academic Integrity Policy. Cheating includes any attempt to defraud, deceive, or mislead the instructor in arriving at an honest grade assessment, and may include copying answers from other students or using unauthorized notes during tests. Plagiarism is a particular form of cheating that involves presenting as one's own the ideas or work of another and may include using other people's ideas without proper attribution and submitting another person's work as one's own. Dishonest activities such as cheating on exams and submitting or copying

work done by others will result in disciplinary actions including but not limited to receiving a failing grade. For further information, review the institution's [Academic Integrity Policy](#).

Internet Etiquette (or Netiquette)

[Click here for more information about Netiquette](#).

Sanctuary College Statement

PCC is a sanctuary college. For more information and resources, see the [resources for undocumented students page](#).

Inclement Weather Statement

Our course is typically unaffected by college campus and facility closures or delayed class start times. Our regular due dates [and Zoom class meeting times (if a remote class)] apply. However, if PCC must close all operations, our regular due dates will be adjusted accordingly. Please check your email for my instructions and continue to check Brightspace during closures.

Flexibility Statement

The instructor reserves the right to modify course content and/or substitute assignments and learning activities in response to institutional, weather, or class situations.

Course Calendar

This calendar is subject to change. Any changes to content or due dates will be communicated to students in writing.

Week	Tuesday	Thursday	Assignments
1	January 6 Introduction Algebra Review	January 8 Graphing Review	Homework 1 Quiz 1
2	January 13 Functions	January 15 Domain	Homework 2 Quiz 2
3	January 20 Behaviors	January 22 Function Arithmetic	Homework 3 Quiz 3
4	January 27 Outside Transformations	January 29 Inside Transformations	Homework 4 Quiz 4
5	February 3 Inverse Functions Exam Review	February 5 Midterm	Homework 5 Quiz 5
6	February 10 Exponent and Log Review	February 12 Euler's Number and the Natural Logarithm	Homework 6 Quiz 6
7	February 17 Exponential Functions	February 19 Logarithmic Functions	Homework 7 Quiz 7
8	February 24 Polynomials	February 26 Graphs of Polynomials	Homework 8 Quiz 8
9	March 3 Rational Functions	March 5 Graphs of Rational Functions	Homework 9 Quiz 9
10	March 10 Modeling with Functions	March 12 Review	
Finals Week	March 17 Final Exam		

