

MATH 100 Precalculus

2026 Fall

Basic Information

Instructor: Prof. Jen Paulhus jpaulhus@mtholyoke.edu

I do not check email between 8 PM and 8 AM on weekdays, and only infrequently on the weekends. I will make every effort to respond to emails within 24 hours.

Class Meetings: 1:45 - 3:00 PM TTh in 401 Clapp and F in 422 Clapp

Class Webpage: jenpaulhus.com/teaching/MHC/ma100f26.html

Office Hours: Tuesdays 9:30 - 11:30 AM and Wednesdays 12:30-2:00 PM *or* [schedule an appointment](#) or email me if none of those times work!

My Office: 402A Clapp

Course TA: Grace Suh suh224j@mtholyoke.edu

Text: *Precalculus: An Investigation of Functions* by Lippman and Rasmussen
[Get it here!](#)

Material Covered: We will cover most of Chapters 1-6 of the textbook.

Graphing Tool: Desmos: [available here](#)

Success in my class

I am excited that you are here!

Paraphrasing a quote (which was really about being a parent!) from the Netflix show “Four Seasons”: *Math isn’t hard because you’re bad at it. It’s hard because it’s hard.*

I, sadly, cannot waive a magic wand and make learning math easy. I can, however, design a class that gives you many opportunities to ask questions about any math topic you don’t understand, to practice lots of problems in a way that doesn’t feel like busy-work, and to build your knowledge in such a way that you won’t easily forget it after the class is over. And, dare I say, try to make the class fun? Most of the decisions I make on how to structure the class are centered around these goals.

Students come to this class with very different backgrounds, skills, and experiences. Usually the most successful students in my class have two things in common: they work hard, and they are able to self reflect honestly and then make adjustments accordingly.

My job is to help you *all* learn precalculus. I do not think any less of you if you struggle with the material, or if you ask me for help in office hours. In fact, I view struggling and discomfort with material as an essential part of learning! If you are frustrated or overwhelmed with the course at any point, email me and we’ll set up a time to talk.

Learning mathematics can be both fun and challenging. You should expect that different parts of the course might have differing levels of difficulty for you.

Learning Goals

This course has three main goals:

- (1) to sharpen your quantitative reasoning skills and abilities to use mathematics to answer questions that are relevant to your other interests, and in such a way that you retain those skills and abilities long after the class has ended,
- (2) to prepare you for success in MATH101: Calculus I, and
- (3) to create a supportive community of mathematicians.

The specific content learning goals for our course are the following:

- understand the geometry of the Cartesian Plane, and use it to answer relevant questions,
- solve linear equations, quadratic equations, and any equation that can be reduced to a linear or quadratic equation, and interpret the solutions to these types of equations in context,
- work with functions algebraically, geometrically, and in context and be able to move between these three modes,
- solve modeling problems that involve linear functions, quadratic functions, or higher degree polynomial functions, any exponential or logarithmic functions or equations, and trigonometric functions,
- gain experience articulating ideas in small groups and to the class, and
- develop skills to work well with a diverse group of colleagues.

Growth toward these goals will be measured by the your ability to solve computational problems, interpret and solve word problems, explain conceptual ideas from the class, articulate the shared ideas of your group, and interact well with all students in the class.

Grading Policies

Learning math requires you to be *active* in the process. I set up the assignments and grading in this course to help you make the most of opportunities to engage with the material. To try to alleviate the stress of scores, all work in this class will be graded on an Excellent/Satisfactory/Unsatisfactory (E/S/U) scale. Instead of the final grade being determined by a numerical %, it will be determined by the accumulation of “E” or “S”. The chart on the next page gives the minimal conditions needed to achieve each grade.

To earn a particular grade you must complete ALL the requirements in the row for that grade subject to a *mismatch bonus*: your final grade will be one row higher in the chart below if the majority of your scores are at least a row above your base grade. This mismatch bonus is only available for base grades ranging from D- to B+. As an example: Say you are in the B row for assessments, worksheets, and the final, but the A or A- row for homework, pre-class reading, participation, and reflection. In this case your final grade would be a B+ (instead of a B).

I reserve the right to handle borderline cases using my professional judgment and to modify the table during the semester (but only in a way that would help students).

Descriptions of each of the 7 components listed in the chart can be found below, and information about what “excellent”, “satisfactory”, or “unsatisfactory” means for each category can be found in the [rubric](#).

	Homework	Pre-class Reading	Worksheets	Assessments	Participation	Reflection	Final Exam
A	18 E	10 E + 1 S	9 E + 1 S	8 E + 1 S	E	4 E	E
A-	16E + 2 S	9 E + 2 S	9 E + 1 S	7 E + 2 S	E	4 E	E
B+	14 E + 4 S	8 E + 3 S	8 E + 2 S	5 E + 4 S	E	3 E + 1 S	S
B	12 E + 6 S	7 E + 4 S	8 E + 2 S	3 E + 6S	E	3 E + 1 S	S
B-	10 E + 8 S	6 E + 5 S	7 E + 3 S	1 E + 8S	E	2 E + 2 S	S
C+	18 S or up	5 E + 6 S	7 E + 3 S	8 S or up	S	2 E + 2 S	S
C	16 S or up	4 E + 7 S	6 E + 4 S	7 S or up	S	4 S or up	S
C-	14 S or up	9 S or up	6 E + 4 S	6 S or up	S	4 S or up	S
D+	12 S or up	8 S or up	9 S or up	5 S or up	S	3 S or up	U
D	10 S or up	7 S or up	8 S or up	4 S or up	S	3 S or up	U
D-	8 S or up	6 S or up	7 S or up	3 S or up	U	2 S or up	U

Failing to satisfy the conditions for a D- will result in an F for the class.

Course Components

Homework Assignments

Homework assignments are **due on Gradescope by 1:30 PM almost every Monday and Thursday**. Assignments will be listed on the class webpage and will consist of several required problems which are to be turned in to be graded, as well as additional problems which you may choose to solve at your discretion, but should not be turned in. Each student will have two no-questions-asked 48 hour extensions for homework. To use these, you must email me before the homework is due letting me know you are using it. Otherwise no late homework will be accepted, although note that we will have at least 21 homework assignments, and the grades above for homework only account for 18 of them. Homework will be graded for accuracy. Always show your work on the submitted homework.

Pre-class Readings

Due most Wednesdays at 10 PM, these assignments will consist of looking over assigned readings for Thursday and Friday classes and then answering a few brief questions in

Gradescope (including a chance for you to ask questions about what you've read). The goal of these readings is to get your brain to start thinking about the content before class. I do not expect you to have mastered the content after one reading, and some of the content may still seem very confusing. That's ok! It will still help that your brain has started thinking about it before we talk about it in class. The questions I ask in the pre class reading will not assume a deep understanding of the content. I may ask you to write down some definitions, or answer a question whose answer comes directly from the reading, or try to solve a simple example (like the book's "Try It Now" problems). Since pre-class readings may well be new for you, you will have a chance to redo the first three if you score less than an "E" on them.

Assessments

There will be weekly assessments at the beginning of class most Tuesdays (think a closed book quiz or exam). These assessments will be cumulative (they could include questions from any prior material in the semester although they will be skewed toward the newest material). They will get progressively longer through the semester: the first few will be 15 minutes long and then later assessments will be 30 or 45 minutes long. No make up assessments will be given, unless agreed to beforehand so contact me immediately if any issue arises with the scheduled assessments. The first assessment will be **September 22**.

Final

There will be a cumulative final exam. You will have added opportunities on the final exam to demonstrate mastery of topics you may have struggled with on earlier assessments.

Worksheets

Most Tuesdays after the assessments are completed, we will work in groups practicing what we learned on the prior Thursday and Friday. I will collect the worksheets from those days at the end of class and grade them primarily for completion but I will also give feedback on incorrect answers.

Reflections

An important part of learning is reflecting on how your process is going. Four times through the semester there will be short reflection essays (only a few paragraphs!) that will ask you to reflect on your experiences in the class so far and discuss how aspects of the class are going for you. Since reflections are probably new for you, you will have a chance to redo the first one if you score less than an "E" on it.

Participation

The final part of your grade is to gauge how well you have engaged with the class and the material. Your collaboration with group members during class, your contributions to questions or discussions in class, or your questions in my office hours or TA hours can each positively impact this part of your grade. If you miss a lot of classes or if you are perennially late for class, your participation grade will suffer.

Class Policies

Random Seating

Each week you will be randomly assigned a discussion partner. You and your discussion partner will work together at specific times during the class period to help each other understand the material. Importantly, the discussion partnerships will change weekly, allowing you to meet most of your classmates and to work with students from a variety of backgrounds.

The assignment of partners will occur as you enter class. When you enter the room, a seating chart of the day will be posted. Consult it and then take the seat assigned to you. Introduce yourself to your partner, and then start working on the warm-up exercise.

Warm-up Exercises

Classes will begin with a warm-up exercise posted on the screen at the front of the room. The warm-up exercise helps us reset our frame of mind to be ready to engage with mathematics. This will also give you a chance to meet your partner for the day. The warmup period will conclude approximately 5-10 minutes into the class. You should be in your seat working on the warmup by 1:45 PM. If you are regularly late to class, your participation grade will suffer.

Short Discussions

Several times during Thursday and Friday classes (including at the beginning of class for the warmup) we will break for a short discussion of the material. This will be accompanied by a prompt from me. Discussion partners will work together to answer a question, complete a computational exercise, identify misunderstandings, solidify concepts, and/or develop questions about the material.

- All partners should contribute to the discussion; in fact all partners are required to say something!
- Identify any thoughts, ideas, confusions, or new questions generated by the discussion.
- The partnership will formulate a response to the prompt that all partners understand.
- Each partner should be prepared to share the response with the class.

After we return from the breakout group, I will randomly select a student, and that student should explain the partnership's answer to the class. It is not a tag team answer. **Only the person I called should answer the question.** It is ok to say that you and your partners were not sure of an answer, but I will ask a followup question regarding what you and your partners discussed while you were trying to answer the question. So if your group cannot figure out the answer to the question I pose, come up with other questions you would like to ask me, or an explanation of where you got stuck. Participation in these conversations contributes to your engagement grade.

Partnerships

As described above, we will spend part of the class time working in small breakout groups. When working in a partnership it is important to remember that varied

backgrounds and experiences naturally induce varied explicit and implicit assumptions and attitudes towards each other. Each student should work diligently to be a cooperative, contributing member of the partnership who is helping the group achieve a common goal. The bottom line is that successful partnerships are founded on mutual respect. This can be achieved by:

- using your partners' names;
- recognizing that all partners matter and actively listening to all other partners;
- graciously inviting all of your partners to offer insights, suggestions, opinions, questions, etc.;
- being courageous enough to offer your own insights, suggestions, opinions, questions, etc.;
- being cognizant of the process by which partnership functions and how you operate within the partnership;
- thanking your partners at the end of each session.

Homework and Quiz Submissions and Returns

All homework, pre-class readings, and reflections will be submitted and returned on gradescope.com (also linked on Canvas). They have a [Student Hub](#) with lots of great information about troubleshooting issues, and information about using [Gradescope through Canvas](#).

Please make sure you scan your homework in black and white, in pdf format, and one document for the whole assignment.

Workload

The amount of time students spend on this course outside of class varies depending on many factors, but about 6–7 hours a week beyond the class sessions is quite typical.

Academic Honesty

I expect all your work to abide by the MHC Honor Code, and if there is any work that does not, I will report it to the Academic Honor Board. For more detail on what constitutes an academic violation of the Honor Code, please see the College [Academic Rights and Responsibilities](#) webpage.

Some typical violations in this course fall under the following categories (taken from the webpage above).

- The unauthorized or unacknowledged use of material that is not a student's own.
- Cheating in any form in preparing assignments (including homework or reflections), in completing in-class work (including assessments), or in taking a final examination.
- Unlawful or improper use of digital or online materials.

For this class, you are welcome to use any resource you find helpful for learning about the concepts and ideas in the class (see below for more about using AI). However, the homework is designed to help you gain practice *yourself* in solving the problems. As

such, it is important that while doing homework, **you do not seek out solutions to the specific assigned problems** (this includes solution manuals, online systems that solve calculus problems, or asking someone down the hall who took the class last year). If you do so, you are cheating yourselves of the essential practice you need to master the material in this course. I do encourage you to work together to solve homework problems, but everyone must write their own solutions. Assessments will have more explicit instructions and you should not use anything besides writing tools, paper, a unit circle, and a basic scientific calculator.

AI

I will not use AI in *any* capacity for this class. I do not use AI to plan nor prepare the class and I will not use AI to grade nor assess your work.

My personal views of generative AI are complicated. Training AI uses a lot of [energy](#) and [water](#), it [infringes on many artists' copyrights](#), and there are terrible stories of AI giving deadly advice to people. At the same time, lots of people are using it (including possible future employers of yours) and there are useful applications for it.

You are not prohibited from using generative AI for *learning* content in this course. **However, you may not use it in any capacity to help you solve homework problems, ask it to solve similar problems to those on the homework, get its help answering the weekly pre-class reading, or writing any part of your reflections.** (Protip: you can search Google by using “-AI” at the end of your search to exclude AI answers or use the “Web” option near the top of the search results page.)

Sometimes learning new mathematics is hard, frustrating, and confusing. That is a natural part of the learning process. **But do not outsource your thinking.** You will not learn anything nor grow if you ask a machine to solve the problems for you.

In my past experiences, students are more likely to contemplate violating the honor code when they are very stressed or overwhelmed in a class. If you find yourself thinking about violating the honor code *come talk to me*. If you are worried about your grade, or if you're frustrated about the material, *come talk to me*. If you just need a pep talk, *come talk to me*!

Cellphones and Laptops

Our class time together is limited and valuable. Cellphone and laptop usage should be restricted to only what is essential for this class. Don't be shopping during class!

Calculators and Computers

Assessments will not require calculators, but I will provide a few basic scientific calculators for the exam, or you may use your own basic calculator if it has no storage and no graphing.

I will use [Desmos](#) for exploring graphs during class, but do keep in mind that you will not have access to graphing technologies during the exams (I will provide graphs on exams when needed).

Getting Help

- Our amazing TA, Grace Suh, will have regular mentor sessions. You should feel welcome to go ask about homework, worksheets, lectures, or background material. The TAs will be there to help you catch up if you're feeling behind or to help deepen your understanding if you're feeling stuck on a tricky idea. More details about the schedule will be announced soon.
- Come to my office hours with questions about material, assignments, or general questions about the course or your grade. These are times I specifically set aside to be available to answer questions. They are drop-in hours so I may be answering questions from several different students at once but I will make sure to
- I'm also happy to schedule an appointment to talk with you about your performance in the class so far, concerns about the class, or if you are frustrated or overwhelmed in the class. Email me to find a time to meet.
- Work together with others.
- The internet is full of other good resources that help explain math. Just make sure you understand the course academic honesty policies.

Unsolicited Advice

- Take ownership of your education.
- Embrace the discomfort and struggle. There will also be moments of joy and excitement in the class!
- There will be no extra credit and you cannot retake an assessment nor redo homework. However on the final exam, there will be some opportunities to demonstrate mastery of prior exam content, and the homeworks will be staggered to help you show mastery of the material.
- Assessment problems will not necessarily be exactly like the homework problems. Understanding *why* we solve a problem in a certain way will result in a better grade than simply trying to mimic examples we have done previously.
- Think of math a bit like learning how to bowl. You can have someone explain to you how to throw the ball and how to put spin on it to make it hit the pins but chances are the first time you throw the bowling ball, you will throw a gutter ball. How do you improve at bowling? You practice. The same is true in math. The best way to learn math is to **practice, practice, practice**.
- I can't say it enough, work together when you can.
- If you are struggling more than you think you should be, make an appointment to talk with me.

College Policies

Accommodations

I am committed to supporting all learners in my class and recognize that MHC is required to provide reasonable academic accommodations to disabled students who have a documented disability-related access need. Disability Services works with students to determine reasonable accommodations, which are protected by civil rights laws and regulations. Since DS distributes accommodations letters each semester that lists the individualized accommodations for each course at the request of the student, I invite you to discuss logistics for accommodations implementation with me during office hours within the first two weeks of the semester (or as soon as your accommodations are established with Disability Services).

Title IX: Confidentiality and Responsible Employee Statement

Mount Holyoke College faculty are committed to creating a learning environment free from sex discrimination including, but not limited to, sex based-harassment; domestic and dating violence; sexual assault; stalking; and discrimination or harassment on the basis of pregnancy or a related condition, sexual orientation, or gender identity, in accordance with Title IX of the Education Amendments of 1972.

The College's Sex Discrimination and Sex-based Harassment Policy designates all faculty members, including teaching assistants, as Mandatory Reporters. Under College policy, all Mandatory Reporters must report all disclosures of sex discrimination, including those made in relation to an assignment and/or educational prompt, to the College's Title IX Coordinator. The Title IX Coordinator will reach out to the individual(s) reported to have experienced the discriminatory conduct to provide resources, support, and information after receiving a report, but community members are not required to respond to such outreach. Reported information will remain private. If you have (or someone you know has) experienced any form of sex discrimination or sex-based harassment and wish to speak with someone confidentially, the College has the following Confidential Resource Providers on campus who are able to provide information and support services to individuals reporting gender-based and sexual misconduct:

Counseling Service: 413-538-2037 Staff on call 24/7 during the academic year
Office of the Ombudsperson : 413-538-2413

The College also offers an anonymous reporting option for those who would like to submit a report anonymously: mtholyoke.edu/go/Reportincident

For more information regarding Mount Holyoke's Title IX procedures, reporting, or support measures, please contact the Title IX Coordinator at titleixcoordinator@mtholyoke.edu or visit <https://www.mtholyoke.edu/policies/sex-discrimination-and-sex-based-harassment-students-employees-policy>.

Pregnancy and Related Conditions

Mount Holyoke College does not discriminate on the basis of pregnancy or related conditions in its education program or activities. Students who are pregnant or who are experiencing related conditions are encouraged to contact the College's Title IX Coordinator to learn about their rights and resources available to support their academic success or to report discriminatory or harassing conduct on the basis of their pregnancy or related condition.

Shannon Lynch, Title IX Coordinator, Skinner Hall, Garden Level, 413-538-2273
titleixcoordinator@mtholyoke.edu

Technology and Accessibility

If you encounter a disability-related barrier with the technology used in this class, please alert the college by using the [MHC Accessibility Barriers form](#) (which can be submitted anonymously). You will receive contact back from a Mount Holyoke staff member. As we work towards a solution, we may share information from the form with relevant Mount Holyoke staff on a limited, as-needed basis.

Mount Holyoke College is committed to equal access and the civil rights of all of its community, regardless of ability. We remove barriers to our programs wherever they exist through systematic barrier removal and proper and timely maintenance. If you encounter a barrier with a technology platform, please help us identify them so we can remove the barriers as quickly as possible and maintain access for everyone.