

## 640:123:05 PREPARATION FOR CALCULUS I

### Syllabus

Days: M/W  
Time: 1:40—3PM EDT  
Location: Zoom (online); link posted on our Canvas page

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<b>Instructor:</b>	Corrine Yap (call me Corrine)	<b>Office:</b>	Zoom
<b>Email:</b>	<a href="mailto:corrine.yap@rutgers.edu">corrine.yap@rutgers.edu</a>	<b>Office Hours:</b>	TBD
<b>Website:</b>	<a href="https://canvas.rutgers.edu">canvas.rutgers.edu</a>		

**Textbook:** OpenStax Algebra and Trigonometry  
(<https://openstax.org/details/books/algebra-and-trigonometry>)

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**About this class:** Math 123 Preparation for Calculus I is a half-semester course. It is designed for students initially enrolled in Calculus I (Math 135 or Math 151) who need additional preparation to successfully complete the course. Math 123 is an opportunity for a productive second half of the semester and for students to best set themselves up for future success in calculus.

Students in this course will work through a review of algebra and precalculus topics. This is not simply a shorter version of existing precalculus courses. Rather, the course is designed specifically to include only material that is important for success in calculus.

The class has a “hybrid” format, which means that we have fewer in-person meetings than a normal 4-credit course (twice a week, rather than three times), and the time that you would normally spend in a third class is instead allocated to reading, reviewing, and doing homework. Our class meetings will not be lecture-based but will be groupwork and student-driven. *I highly recommend that you read the assigned sections and attempt to finish the homework before coming to class.*

**Course Materials:** All of the material in this course will be accessible on Canvas or Knewton Alta, our homework platform. Alta focuses on proficiency or mastery of concepts rather than total scores. It utilizes adaptive learning technology, which is a fancy way of saying it can recognize what you know or don’t know and adjust the assignment accordingly, either to give you more review of the topic or to skip ahead to more challenging problems.

You are required to purchase access to Knewton Alta for the semester. There is a two-week free trial period that you may use for the first few homework assignments.

After every class, any relevant notes and recordings will be posted on the course website.

**Class Format:** Here is a summary of the day-to-day expectations for this course.

1. Before coming to class: read over the sections that will be discussed, and attempt to finish the Alta homework assignment. Prepare to ask any questions you might have about the material.
2. During class: warm-up problems and review of important concepts, followed by groupwork on worksheets. We’ll use tools like Google Docs, shared whiteboards, Geogebra, and Desmos to collaborate, work on problems, and present solutions to each other.
3. After class: a quiz will be assigned through Knewton Alta. The quiz must be done immediately after class. The homework assignment is due a few hours after class.

**Some Guidelines:**

**Math does not exist in a void.** Each of you will enter the class with different math-and-life experiences. I do not expect us to leave our identities at the door - they inform how we learn, view, discuss, teach, and internalize math. Regardless of how you view yourself or how society views you, you are capable of excelling in this course, and I am here to help you.

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**Minimum technology requirements** consist of a computer, webcam, and microphone. **Be prepared to turn your webcam and microphone on during every class.** You will not often be required to, but you should be able to if you are asked. If doing this isn't easy (e.g. loud home, family members around, etc), let me know so we can discuss how you can participate as well as your situation allows.

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**Attendance** is important, especially since much of class time will consist of activities that will help you understand material more deeply. Repeated absences will affect your grade in the course. If your absence is unavoidable (e.g. religious holiday, personal emergency), speak to me beforehand about turning in work, and speak to me and your classmates about the material you missed.

**Online attendance means *you* are present, not just your avatar.**

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**Participation** is expected and is part of your grade. In order to participate to the fullest of your abilities, **you must come to class prepared.** This means doing the assigned reading and/or problems before class.

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**Late submissions** for homework will not be accepted, unless due to an unavoidable circumstance.

I would prefer you turn in homework late, rather than plagiarize someone else's work in order to hand it in on time. If you find yourself having to make this choice, come talk to me.

*There will be no makeups for quizzes or the midterm.*

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**Academic integrity** is taken seriously. All students are expected to be familiar with the university's academic integrity policies, found at [academicintegrity.rutgers.edu/academic-integrity-at-rutgers](https://academicintegrity.rutgers.edu/academic-integrity-at-rutgers).

In particular, copying work from the internet or another student and submitting it as your own is a violation, and it will not help you succeed in this course.

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**Feedback** is more than welcome. If you have any thoughts on how the course is going, or personal circumstances that are affecting your ability to participate, I want to know. **Email me**, and I will try to answer within 48 hours.

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**Lastly, a note about being online:** I understand that this past year may have been tough for you—maybe you didn't have a good place to study, maybe your mental health suffered, maybe your classes got more difficult and your professors less communicative. Or maybe you just felt a lot less motivated. I experienced a lot of this for the graduate classes I was taking. My goal for this course is not to give a second-rate online substitute for the course you should have taken in person, but to give you a valuable worthwhile learning experience in and of itself. As I said at the beginning, you have the capability to succeed.

**Student Resources:**

- **Disability Services**

(848) 445-6800 // <https://ods.rutgers.edu>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>.

If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter and discuss the accommodations with me as early as possible.

To begin this process, complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

- **Counseling, ADAP & Psychiatric Services (CAPS)**

(848) 932-7884 // <http://health.rutgers.edu/medical-counseling-services/counseling/>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University.

All CAPS locations are physically closed but are providing services remotely, including individual therapy and virtual workshops.

- **Just In Case Web App**

[www.justincaseforcolleges.com](http://www.justincaseforcolleges.com)

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

- **Violence Prevention & Victim Assistance (VPVA)**

(848) 932-1181 // [www.vpva.rutgers.edu](http://www.vpva.rutgers.edu)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

**Course Outline:**

This is an approximate listing of the topics we'll cover. A day-by-day breakdown with the corresponding textbook sections will be posted on our website and updated frequently.

- Week 7: Exponents; Polynomials, Factoring, and Rational Expressions
- Week 8: Linear Equations; Quadratic Equations, Inequalities, Introduction to Functions
- Week 9: No class (spring break)
- Week 10: Linear Functions; Function Graphing and Exponential Functions
- Week 11: Logarithmic Functions; Review for Midterm
- Week 12: Midterm; Exponential and Logarithmic Equations
- Week 13: Right Triangle Trig and the Unit Circle; Trig Functions
- Week 14: Graphs of Trig Functions, Trig Identities; Limits
- Week 15: Continuity; Derivatives
- Week 16: Review for Final

**Assessments Overview:**

Assessment Type	Description	Percent of Final Grade
Daily Participation	5 pts per day; see participation rubric	8%
Alta Homework	Assigned after class, due before next class	14%
Quizzes	20 minutes; at the end of each class through Alta	13%
Midterm Exam	Monday, April 5 during class	25%
Final Exam	Thursday, May 6, 4-7PM	40%

Note: Lockdown Browser will be required for all quizzes and exams.

## Participation Rubric:

5	Student comes to class prepared. Student voluntarily makes thoughtful contributions that advance the conversation in class, such as by asking and answering questions, or presenting worksheet solutions. Student does not dominate conversation. Student shows interest in and respect for others' views and participates actively in small groups, both through written work and through conversation with groupmates.
4	Student makes thoughtful contributions that advance the conversation when called upon and occasionally contributes without prompting. Student comes to class prepared, shows interest in and respect for others' views, and participates in small groups.
3	Student comes to class prepared but does not voluntarily contribute to discussions and gives abbreviated answers when called upon. Student shows interest in the discussion, participates in small groups with prompting, and takes good notes. Or, student arrives late to class or is unprepared, but is otherwise in the 5 or 6 category. Or, student participates in discussion but sometimes in a problematic way, such as by dominating discussion.
2	Student does not voluntarily contribute to discussions and gives only minimal answers when called upon. Student shows interest in the discussion and listens attentively. Or, student participates in discussion but often in a problematic way, such as by dominating discussion, making rambling or tangential contributions, continually interrupting with digressive questions, or bluffing when unprepared. Or, student is logged on but not actually present for small portions of class, but when present is in the 4 or 5 category.
1	Student comes to class late or unprepared. Student seems on the margins of the class and sometimes has a negative effect on the participation of others. Or, student is logged on but not actually present for small portions of class, and when present is in a 2 or 3 category.
0	Student comes to class late or unprepared. Student has a negative effect on the participation of others. Student may be actually disruptive, overtly rude, or condescending. Or, student is not present for large portions of class.

*adapted from rubrics by sarah-marie belcastro, John C. Bean, and Dean Peterson*