

# Course Syllabus

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## Pre-calculus MATH 1113 Syllabus Summer 2026 Semester

### 1. Course Description

Course Title: Pre-calculus

Course Number: MATH 1113

Credit Hours: 4.0

Semester: Late Short Summer 2026

Sections: A, SF

Prerequisites: Math 1111 with a minimum grade of D or Math SAT Section Score (new SAT) of 530 or ACT score of 21.

Meeting times and locations:

- This course will consist of fully in-person lectures and studio classes.
- MWF 12:30 - 3:15 pm ET in Skiles 202 for lectures
- TuTh 12:30 - 1:25 in Clough 123 and 125 for studios
- Students are expected to attend all scheduled lecture and studio sessions.


### 2. Instructional Team

- **Dr. Mayer**
  - Instructor
  - [greg.mayer@gatech.edu](mailto:greg.mayer@gatech.edu) (<mailto:greg.mayer@gatech.edu>)
  - Office hours Tuesdays and Thursdays from 11:30 to 12:30, in Clough 123 (where our studios are)
- Our course will be supported by one or two teaching assistants (TAs).
- The Tutoring & Academic Support department and the School of Mathematics is providing us with a Learning Assistant (LA) who will support active learning during lectures and offer office hours.
- The TA, LA, and instructor will help develop a welcoming community, where active & collaborative learning thrive during studios and lectures.
- Teaching assistant and Lecture Assistant contact information and office hours will be relayed

elsewhere in Canvas and lecture.

## 3. Course Goals, Learning Objectives, and Topics

### Course Description

- This course is designed to introduce and solidify concepts needed for calculus.
- Topics include properties of real numbers, functions, polynomial, rational and trigonometric, systems of equations and equalities, exponential and logarithmic functions.
- The only topics that are covered are those stated on the School of Math website: <https://math.gatech.edu/courses/math/1113>  (<https://math.gatech.edu/courses/math/1113>)

### Learning Objectives

Learning objectives articulate what students are expected to do in a course. The learning objectives for this course are as follows.

1. Identify and apply basic skills such as adding/subtracting, fractions, order of operations, multiplying, and factoring throughout the course.
2. Solve linear, quadratic, exponential, logarithmic and trigonometric equations.
3. Compare functions and their inverses.
4. Graph a polynomial, rational and trigonometric functions.



### Lecture Format

- For each topic in the course our lectures will consist of brief overview by the instructor followed by students working in small groups to complete associated activities.
- Any problems not completed from activities will become homework.
- Please bring a phone or device to lectures so that you can complete lecture activities.

## 4. Textbook

- No textbook purchase is required for this course.
- Our course materials reference section numbers from: Precalculus: A Unit Circle Approach, by Ratti and McWaters.

## 5. Course Websites

- Our official and required course website is <http://www.canvas.gatech.edu>  (<http://www.canvas.gatech.edu>)
- We use Gradescope for exams, studio buzzers, and quizzes: <https://www.gradescope.com/>  (<https://www.gradescope.com/>)

## 6. Assessments

### Grade Weights

Final grades are calculated using the following grade weightings.

Weight	Assessment
2%	Participation
2%	Lecture Activities
2%	Lecture Pulse Checks
3%	Studio Buzzers
3%	Knowledge Checks
4%	Graphing Projects
4%	Studio Quizzes
60%	Exams
20%	Final Exam

### Conversion to Letter Grade

The standard 10-point scale will be used to assign letter grades.

- A: [90%, 100%]
- B: [80%, 90%)
- C: [70%, 80%)
- D: [60%, 70%)
- F: [0, 60%)

### Grade Curves

- No grades on any assessment will be curved.

- Boundaries between letter grades may be lowered.
- The extent to which boundaries could be lowered can only be determined after the final exam has been graded.

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## Assessment Descriptions

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- Participation
  - The lowest 3 participation activity scores are dropped.
  - The purpose of these activities are to:
    - help students orient themselves to the course and map out how they will reach their learning goals,
    - help students further develop their study strategies for exams, and
    - help students become more aware of the resources they have available to them.
  - Welcome Module Activities
    - There are three welcome module activities:
      - Welcome Module 1: Syllabus Quiz
      - Welcome Module 2: Start of Semester Survey
      - Welcome Module 3: Introduce Yourself Discussion Post
  - Academic Skills Activities
    - There are weekly Academic Skills activities:
      - Academic Skills Activity 1: Semester-at-a-Glance
      - Academic Skills Activity 2: Weekly Schedule
      - Academic Skills Activity 3: Study Strategies
      - Academic Skills Activity 4: Note Taking
- Lecture Activities (LA)
  - The lowest 5 LA scores are dropped.
  - Completed during lecture.
  - Submit through Canvas (upload a picture of your work)
  - These are completed on paper or tablet and graded for completion.
  - There are no make-ups.
- Pulse Checks (PC)
  - The lowest 3 PC scores are dropped.
  - Completed during lecture.
  - These are completed on paper and graded for accuracy.
  - There are no make-ups.
- Studio Buzzers
  - Lowest 3 Studio Buzzers are dropped.
  - Completed during studios.
  - Posted on Gradescope.

- Comprise of true/false, multiple choice and/or short answer questions.
- No make-ups.
- If you are out of town for a school sponsored event, I expect you to still complete the buzzer on time.
- Knowledge Checks (KC)
  - Lowest 3 KCs are dropped.
  - Each lesson has a short knowledge check.
  - KCs open on the first day of lecture and remain open until the time they are due.
  - Questions may be asked about content from the lesson videos or lecture classes.
  - These are short graded “quizzes” on each lesson that are submitted through Canvas.
  - Each KC allows only 1 attempt.
  - Students are welcome (and encouraged!) to work with each other on KCs.
  - Late KCs are not accepted.
  - If you are out of town for a school sponsored event, I expect you to still complete the KCs on time.
- Quizzes
  - The lowest quiz score is dropped.
  - Quizzes will be completed during studio.
  - Check course calendar for quiz deadlines.
  - Quizzes are graded on score, not completion.
  - Each quiz will be 2-5 questions.
- Graphing Projects
  - There will be 2 graphing project assignments.
  - Check course calendar for deadlines.
  - None of the project scores are dropped.
- Exams
  - There will be 4 exams to be completed during studio times.
  - The sections each exam covers are as follows:
    - Exam 1: Tuesday July 1, Chapter A, 1.1 - 1.7, 7.1
    - Exam 2: Thursday July 10, Chapters 2 and 3
    - Exam 3: Thursday July 17, Chapter 4
    - Exam 4: Thursday July 24, Chapter 5
  - Exams are 75 minutes (one hour and 15 minutes).
  - Exams are held in the last 75 minutes of the studio to give students time to ask questions and review material.
  - None of the exam scores are dropped.
- Final Exam
  - There will be a comprehensive, proctored final exam that is to be taken in person on paper.

- The exam will cover all course material.
- The GT Registrar has scheduled our final exam for Thursday July 31, 11:20 AM to 2:10 PM ET.
- The final exam will be in the same room where we have our lectures and studios.

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## 6. CIOS Incentive

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**Please take a few moments towards the end of the semester to complete the CIOS survey.**

- The School of Math is continually discussing how we might better offer its courses.
- CIOS survey results have informed many improvements to courses in recent years!
- Your input will help the School of Math decide how to allocate resources to this course and what directions we should take in the near future.
- Your instructors also use CIOS data to help improve their teaching from course to course.


To help encourage students to complete the CIOS survey, if the completion rate is at least 85% for the entire class by the Friday at noon before final grades are due to the GT Registrar (August 1 2025), then the letter grade intervals will be lowered by 1%. In other words:

- A final grade of 89.0% would be an A, but 88.999% would be a B.
- A final grade of 79.0% would be a B, but 78.999% would be a C.
- And so on for the remaining letter grades.

### Response Rate Updates

- While the CIOS survey is open, the instructor will announce the current CIOS response rate to the class in weekly announcements.
- Please do not ask for updates on the CIOS completion rate on Piazza, during office hours, or over email.

### More About CIOS

- Generally the CIOS survey is released by the Office of Academic Effectiveness at the end of November.
- Students will receive several announcements from the OAE asking you to complete the CIOS in their GT email.
- More information about the CIOS is available at: <https://academiceffectiveness.gatech.edu/surveys/cios>  (<https://academiceffectiveness.gatech.edu/surveys/cios>)

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## 7. Expectations

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## Student Expectations

Students are expected to do the following.

- complete all assignments in a timely and professional manner
- study course materials to prepare for exams
- review the course syllabus
- uphold the GT Honor Code
- review their graded work in a timely manner for potential marking errors and to review where mistakes were made (if any)
- ask questions and seek help when needed in a timely manner
- read announcements placed on our course website (Canvas)
- alert their instructors of any conflicts with exam dates as soon as possible so that appropriate accommodations can be made

## Teaching and Lecture Assistant Expectations

- TAs are responsible for facilitating learning activities during studio, holding office hours, marking, and responding to questions from students via email. They may contribute to the discussion forum.
- Lecture Assistants (LAs) are responsible for engaging with students during lectures, holding office hours, marking, and responding to questions from students via email and the course discussion forum.

## Instructor Expectations

- Provide learning objectives that define what students are expected to be able to learn.
- Coordinate with assistants to grade student work and facilitate learning activities.
- Provide students with assessments that both develop and measure their understanding and knowledge of the subject matter.
- Provide feedback on your performance.
- Provide solutions to exams.
- Be available for assistance when requested.

## 8. Course Policies

### Lecture Attendance

- Students are expected to come prepared and actively participate in every class session.

- In the event of an absence, you are responsible for all missed materials and any additional announcements or schedule changes given.
- The instructor is not responsible for re-teaching missed information.
- Students should refer to the class calendar to know what information was covered while they were not in class.
- Students are advised to get contact information from a fellow classmate who they can contact if they need to get copies of notes.

## Missing Assessments

- Students who are absent because of participation in approved Institute activities (such as field trips, professional conferences, and athletic events) will be permitted to make up exams missed during their absences.
- Approval of such activities will be granted by the Student Academic and Financial Affairs Committee of the Academic Senate, and statements of the approved absence may be obtained from the Office of the Registrar.
- In the event of a medical emergency or an illness that is severe enough to require medical attention, students are responsible for contacting the Office of the Vice President and Dean of Students (Division of Student Life) as soon as possible to report the medical issue or emergency, providing dated documentation from a medical professional and requesting assistance in notifying their instructors.

## Weather and Illness Statements

- The instructor and assistants hope to provide an in-class experience for students as much as possible this semester.
- However, at times, it may be necessary for classes to have a substitute, move online or be cancelled due to a rise in COVID-19 cases on campus/weather conditions, or illness/isolation of the instructor or TA.
- We will notify students as soon as possible if any classes will meet online. Any sessions that move online, will use the Zoom platform.
- We also strongly encourage students who are sick to stay home, so that we can safely continue to offer as many in-person classes as possible.
- In the event health conditions and/or class mode delivery changes, announcements will be made on the course Canvas page.
- Updates could include online tests, take home tests, requiring the use of Honorlock proctoring tool, and an additional device containing a webcam for live proctoring.
- Students are advised to get contact information from a fellow classmate who they can contact if they need to get copies of notes.

## Academic Integrity: Class Disruptions

Class disruptions of ANY kind will NOT be tolerated and may result in your removal from the classroom.

- 1st interruption = verbal warning
- 2nd interruption = verbal warning and may be asked to leave the classroom
- 3rd interruption = verbal warning, may be asked to leave the classroom, and reported to OSI

Please show courtesy to your fellow classmates and instructor by adhering to the following class rules:

- Turn off and put away all food and electronic devices, unless needed for class.
- Come to class on time and stay for the entire class period.
- Refrain from conversing with your fellow students while the instructor is speaking.
- Put away any reading materials unrelated to the course.
- Students will raise their hand and wait to be addressed before speaking during lecture.
- No sleeping allowed. Light snacks only.

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## Academic Integrity: the GT Honor Code

- The honor code can be found at <http://www.policylibrary.gatech.edu/student-affairs/code-conduct>. Any student suspected of cheating or plagiarizing on an assignment, quiz, or assessment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.
- Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. All students are expected to comply with the Georgia Tech Honor Code.

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## Academic Integrity: Cheating

Cheating includes, but is not limited to:

- Using an unapproved calculator, books, etc. on assessments.
- Copying directly from any source, including friends, classmates, tutors, internet sources (including Wolfram Alpha, Mathway, Symbolab, ChatGPT, etc.), or a solutions manual.
- Allowing another person to copy your work and/or sharing work with others.
- Taking an assessment in someone else's name, or having someone else take an assessment in your name.
- Asking for a regrade of a paper that has been altered from its original form.
- Using someone else's name to gain to take quizzes or tests for them, or asking someone else to submit assessments for them for any graded or attendance submission.

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## Quiz and Exam Rules

- Quizzes are held in the last 25 minutes of studios.

- Exams are held in the last 75 min of studio.
- Please make sure you are in the classroom at least 5 minutes before the quiz or exam is held. We cannot allow students who arrive late to have extra time.
- Keep eyes on your test and no soliciting for answers.
- No hats or items obstructing your face.
- No cell phones, laptops, smart watches, calculators or other electronic devices (you may be asked to remove a watch if the instructor is uncertain whether it is a smart watch).
- Students caught with any electronic device may receive a zero on their test.
- Please make sure all items (scratch paper, pens) needed for exam are out when testing begins. Retrieval of items after test begins is prohibited.
- No communication with other students during test for any reason, which includes verbal, non-verbal and electronic communication.
- Please use the restroom before coming to class. In the event of an emergency, please let the instructor know. You will be asked to leave your exam, cell phone, bag, etc. with the instructor while you leave the room.
- No earphones are allowed.
- Do not bring review pages into the classroom. If you want to review, then do that outside of the classroom. When you enter, all review material should already be put away in your backpack and be ready to take the test.
- Bring Buzz Card ID or Photo ID for verification of your identity.

## Regrade Requests

- If a problem has been graded in error, you must submit a regrade request through Gradescope any time before July 31 at midnight.
- Any regrade requests submitted after the last lecture will only be considered if it may change a final letter grade.
- Should you wish to have your paper regraded, do not change or add to the work on your paper!
- If you must write on your returned paper, be sure to write in a different color ink and clearly indicate what you have added.
- When turning in a regrade request your entire assessment may be subject to regrade, and not a single problem.
- A regrade request can result in points being deducted and/or increased from your assessment.

## Make-ups for Assessments

- Exam make-ups will be allowed for university-sponsored events, illness, and death in the family.
- To complete a make-up, written documentation from the Office of the Registrar or Division of Student Life must be received.
- Scheduling of make-up exams are held on a case-by-case basis.

- If both the Exam and Make-Up Exam are missed, then your other 3 exams will be averaged to compensate for the missed exam.
- This is only good for 1 exam.
- If more than one exam and make-up exam is missed, then you will receive a zero for subsequent exams missed. Note: There are no make-ups for knowledge checks, pulse checks, buzzers, graphing projects, and quizzes.

## Accommodations for Students with Disabilities

- Georgia Tech complies with the regulations of the Americans with Disabilities Act and offers accommodations to students with disabilities.
- If you need classroom or testing accommodations, please make an appointment with disability services to discuss your needs and to obtain an accommodations letter.
- More information is available on their website, <http://disabilityservices.gatech.edu/>.
- Please also make an appointment with me to discuss your accommodation and learning needs.

## Calculators

- Students may need a scientific calculator for help with some of the assessments.
- The use of calculators is not allowed on quizzes and exams.

## Announcements

- I will frequently update the class pages with class information and materials.
- Students are responsible for obtaining any announcements or materials placed on Canvas ([canvas.gatech.edu](https://canvas.gatech.edu)).

## Missing Grades

- On Canvas, if your grade is not reported, that means we do not have a submission from you for that assignment.
- If your submission score is listed as “0” or is not posted on Canvas, you will also have one week after papers have been returned to report a missing paper.
- After that time, hard copies of the papers may be shredded, and any unreported submissions will be scored as a “0”.
- It is every student’s obligation to check Canvas regularly and report grading errors promptly to their instructor.

## 9. Additional Help

### Academic Support

- Tutoring & Academic Support, <http://tutoring.gatech.edu>  (<http://tutoring.gatech.edu/>)

- 1-to-1 tutoring via Knack
- Peer-Led Undergraduate Study (PLUS)
- Commons/Drop-In Tutoring (Including the Math Lab)
- Undergraduate Advising & Transitions, <http://advising.gatech.edu/coaching> ↗ (<http://advising.gatech.edu/coaching>)
  - Academic Coaching
  - Exploratory Advising
- OMED: Educational Services, <http://omed.gatech.edu/programs/academic-support> ↗ (<http://omed.gatech.edu/programs/academic-support>)
  - Group study sessions and tutoring programs
- Communication Center, <http://www.communicationcenter.gatech.edu> ↗ (<http://www.communicationcenter.gatech.edu>)
- Individualized help with writing and multimedia projects
- Academic advisors for your major, <http://advising.gatech.edu/> ↗ (<http://advising.gatech.edu/>)

## Other Georgia Tech Resources for Support

- The Office of the Dean of Students:
  - <http://studentlife.gatech.edu> ↗ (<https://studentlife.gatech.edu>); **404-894-6367**; Smithgall Student Services Building 2<sup>nd</sup> floor
  - You also may request assistance at <https://studentlife.gatech.edu/request-assistance> ↗ (<https://studentlife.gatech.edu/request-assistance>)
  - The Center for Assessment, Referral and Education (CARE): [gatech.edu](http://gatech.edu); **404-894-3498**
- Counseling Center
  - <http://counseling.gatech.edu> ↗ (<http://counseling.gatech.edu>); **404-894-2575**; Smithgall Student Services Building 2<sup>nd</sup> floor
  - Services include short-term individual counseling, group counseling, couples counseling, testing and assessment, referral services, and crisis intervention. Their website also includes links to state and national resources.
  - *Students in crisis may walk in during business hours (8am-5pm, Monday through Friday) or contact the counselor on call after hours at **404-894-2204**.*
- Students' Temporary Assistance and Resources (STAR)
  - <https://star.studentlife.gatech.edu/> ↗ (<https://star.studentlife.gatech.edu/>)
  - Can assist with interview clothing, food, and housing needs.
- Stamps Health Services: <https://health.gatech.edu> ↗ (<https://health.gatech.edu>); **404-894-1420**
  - Primary care, pharmacy, women's health, psychiatry, immunization and allergy, health promotion, and nutrition
- OMED: Educational Services: <http://www.omed.gatech.edu> ↗ (<http://www.omed.gatech.edu>)
- Women's Resource Center: <http://www.womenscenter.gatech.edu>; **404-385-0230**

- LGBTQIA Resource Center:<http://lgbtqia.gatech.edu/>; **404-385-2679**
- Veteran's Resource Center:<http://veterans.gatech.edu/> ↗ (<http://veterans.gatech.edu/>); **404-385-2067**
- Georgia Tech Police; **404-894-2500**

## 10. Inclusivity

- As a member of the Georgia Tech community, I am committed to creating a learning environment in which all my students feel safe and included.
- Because we are individuals with varying needs, I am reliant on your feedback to achieve this goal.
- To that end, I invite you to enter into dialogue with me about the things I can stop, start, and continue doing to make my classroom an environment in which every student feels valued and can engage actively in our learning community.

## 11. Important Dates

- 16 May – Last day to register, make schedule changes
- 29 Jun – First Day of Classes
- 28 Jun – Grade substitution deadline
- 02 Jul – Recess (No Classes)
- 03 Jul – Holiday
- 15 Jul – Grade mode change deadline (last day to withdraw from a course)
- 30 Jul – Last day of classes
- 31 Jul – Reading period
- 04 Aug – Grades due to GT Registrar
- 05 Aug - Final Grades available

## 12. Course Schedules

### Lecture and Assessment Schedule

Week	Unit	Day	Date	Session	Topics
1	1	M	29-Jun	Lecture	A1, A2, A6, A8
1	1	Tu	30-Jun	Studio	A1, A2, A6, A8
1	1	W	1-Jul	Lecture	1.1, 1.2, 1.3
1	1	Th	2-Jul	Holiday	NA
1	1	F	3-Jul	Holiday	NA

2	1	M	6-Jul	Lecture	1.4, 1.5, 1.6
2	1	Tu	7-Jul	Studio	1.4 - 1.6
2	2	W	8-Jul	Lecture	1.7, 7.1
2	2	Th	9-Jul	Studio	1.7, 7.1
2	2	F	10-Jul	Lecture	2.1, 2.2, 2.3
3	2	M	13-Jul	Lecture	2.4, 3.1, 3.2
3	2	Tu	14-Jul	Studio	2.1 - 2.4, 3.1, 3.2
3	2	W	15-Jul	Lecture	3.3, 3.4
3	2	Th	16-Jul	Studio	3.3, 3.4
3	3	F	17-Jul	Lecture	4.1, 4.2, 4.3
4	3	M	20-Jul	Lecture	4.4, 4.5
4	3	Tu	21-Jul	Studio	4.1 - 4.5
4	3	W	22-Jul	Lecture	4.6
4	3	Th	23-Jul	Studio	4.6
4	4	F	24-Jul	Lecture	5.1, 5.2
5	4	M	27-Jul	Lecture	5.3, 5.4
5	4	Tu	28-Jul	Studio	5.1 - 5.4
5	4	W	29-Jul	Lecture	5.5
5	4	Th	30-Jul	Studio	5.5
5	4	F	31-Jul	Reading Day	NA

## Assessment Schedule

Week Day Date	Pulse Checks, Studio Buzzers	Lecture Activities (LA), Knowledge Checks (KC)	Academic Skills, Welcome Module (WM), Graphing Projects	Quizzes and Exams
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1	M	23-Jun	Pulse Check 1	LAs, KCs for Chapter A		
1	Tu	24-Jun	Studio Buzzer 1		WM1, WM2, WM3	Quiz 1 (Chapter A)
1	W	25-Jun	Pulse Check 2	LAs, KCs for 1.1, 1.2, 1.3		
1	Th	26-Jun				
1	F	27-Jun				
2	M	30-Jun	Pulse Check 4	LAs, KCs for 1.7, 7.1	Academic Skills 1	
2	Tu	1-Jul	Studio Buzzer 2			Quiz 2 (1.1, 1.2, 1.3)
2	W	2-Jul	Pulse Check 3	LAs, KCs for 1.4, 1.5, 1.6		
2	Th	3-Jul	Studio Buzzer 3			Exam 1: Chapter A, 1.1 - 1.7, 7.1
2	F	4-Jul	Pulse Check 5	LAs, KCs for 2.1, 2.2, 2.3		
3	M	7-Jul	Pulse Check 6	LAs, KCs (2.4, 3.1, 3.2)	Academic Skills 2	
3	Tu	8-Jul	Studio Buzzer 4		Graphing Project 1	Quiz 3 (2.1 - 2.4, 3.1, 3.2)
3	W	9-Jul	Pulse Check 7	LAs, KCs for 3.3, 3.4		
3	Th	10-Jul	Studio Buzzer 5			Exam 2 (Chapters 2 and 3)
3	F	11-Jul	Pulse Check 8	LAs, KCs for 4.1, 4.2, 4.3		
4	M	14-Jul	Pulse Check 9	LAs, KCs for 4.4, 4.5	Academic Skills 3	
4	Tu	15-Jul	Studio Buzzer 6		Graphing Project 2	Quiz 4 (4.1 - 4.5)
4	W	16-Jul	Pulse Check 10	LAs, KCs for 4.6		

4	Th	17-Jul	Studio Buzzer 7			Exam 3 (Chapter 4)
4	F	18-Jul	Pulse Check 11	LAs, KCs for 5.1, 5.2		
5	M	21-Jul	Pulse Check 12	LAs, KCs for 5.3, 5.4	Academic Skills 4	
5	Tu	22-Jul	Studio Buzzer 8			Quiz 5 (5.1 - 5.4)
5	W	23-Jul	Pulse Check 13	LAs, KC for 5.5		
5	Th	24-Jul	Studio Buzzer 9			Exam 4 (Chapter 5)
6	Th	31-Jul				Final Exam (11:20 AM - 2:10 PM)