

Math 6B-030: Introduction to Functions, II
Introduction to College Mathematics for the Sciences II, Spring 2021

Instructor: Dr. Mahesh Sunkula

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Class Meeting: TR 5:00-6:20 pm (**Via Zoom: Meeting ID: 978 7348 9190;** **Passcode: 6B030S21**)

Office Hours: TR 1:30-2:50 pm (**Via Zoom: Meeting ID: 945 3165 3631;** **Passcode: 6BSunkula**)

Discussions Sessions (via Zoom): Section 31: Friday 10:00-10:50 am, TA: Michael Pierce
Section 32: Friday 11:00-11:50 am, TA: Kevin Su
Section 33: Friday 12:00-12:50 pm, TA: Kevin Su
Section 34: Friday 1:00-1:50 pm, TA: Michael Pierce
Section 35: Friday 2:00-2:50 pm, TA: Michael Pierce

[Canvas](#): Main course website.

[Rational Reasoning](#): Online workbook, textbook & videos.

[iMathAS](#): Online homework (also accessible via RR)

[Zoom](#): Class, office hours, and discussion held online here.

[Gradescope](#): To submit worksheets, homework journals, work for tests.

Additional resources: [Desmos](#), [GeoGebra](#)

elearn.ucr.edu

rationalreasoning.net

imathas.rationalreasoning.net/

Text: *Precalculus: Pathways to Calculus: A Problem Solving Approach* by Carlson, Oehrtman, & Moore. (Ed.8). These materials include an eworkbook, an ebook, online homework, embedded videos, & interactive applets to help further your understanding of the concepts covered in both 6A and 6B. You can purchase these materials (once for 6A/6B sequence) at: <https://rationalreasoning.net/amember/signup/ucr> for \$50 or the UCR bookstore.

iMathAS homework sign up: email: your UCRNetID@ucr.edu
course id: 2329
enrollment key: 6B030Sunkula21

Course Description. This course will prepare you for calculus by focusing on developing deep conceptual understanding and quantitative reasoning. You will develop algebraic proficiency and skills to understand and describe the behavior of functions, especially of linear, exponential and logarithmic functions.

Course Content. 6B covers Modules 5-8.

- Module 5. Polynomial and Power Functions: Connections Across Function Representations
- Module 6. Rational Functions and an Introduction to Limits
- Add-On. Limits and Continuity
- Module 7. Angle Measure and Trigonometric Functions
- Module 8. Right Triangle Trigonometry

Course Outcomes.

- Understand key elementary functions and concepts verbally, visually, numerically, & symbolically (**rule of four**).
 - Develop skills to analyze if two mathematical expressions are equivalent.
 - Develop and refine logical reasoning skills.
 - Create functions that model real world situations.
 - Develop quantitative reasoning skills and evaluate accuracy of solution using these skills.
 - Demonstrate covariational reasoning to discuss how the value of a function changes with its argument.
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Didn't take 6A? Tell your professor right away & attend office hours regularly to catch up with 6A prerequisites. *Math 4 does not cover all of 6A, so if you took 4 expect to spend time learning 6A material.*

The Path. *I want each and every one of you to succeed and want to help you, but at the end of the day your learning is up to you. Take the initiative to be responsible for your own learning.*

- **PREPARE.** *Before each class, review material from last class & look at the new material in the ebook.*
- **OWN IT!** *Take ownership of your own learning.*
- **CHECK IT!** *We all make mistakes. Check your work & ask yourself, does your answer *make sense*?*
- **PERSIST!** *Persist and work through perceived failure.*
- **COLLABORATE.** *Positive experiences working in groups has been shown to contribute to overall learning, retention, & college success. You gain valuable skills like how to explain concepts to others and you get a support network that can help you learn the material better.*
- **PARTICIPATE ACTIVELY.** *Don't be a passive learner just taking notes.*
Ask questions. Chances are, others have the same question and will appreciate you asked.
Stay focused. It is your responsibility
Answer questions. Posed by the instructor, TA, or other students.
- **ADDRESS ISSUES IMMEDIATELY!** *Occasionally unexpected events may make it difficult to complete an assignment on time. Let your professor know *right away* if this happens to you. It is much easier to address an issue right away and then stay on top of material. If you wait until the end of the quarter, then it is *too late* to make up work. ***No assignments can be completed or extra credit done after classes end.****

Course Components and Grading Policy.

Course components (including exams) are NOT curved.

Assignments	<i>Homework Worksheets</i>	100 points 126 points	20% 25.2%
Tests	<i>Quizzes Exams</i>	80 points 120 points	16% 24%
Participation	<i>Class Participation Discussion Participation</i>	18 points 24 points	3.6% 4.8%
Other	<i>Homework Journals Pre & Post Tests</i>	24 points 8 points	4.8% 1.6%
Total		500 points	100%

Letter Grades.

A+	> 97%	>485 pts	B+	87-90 %	435-45 0	C+	77-80 %	385-40 0	D	60-70 %	300-35 0
A	93-97 %	465-48 5	B	83-87 %	415-43 5	C	73-77 %	365-38 5	F	< 60%	<300 pts
A-	90-93 %	450-46 5	B-	80-83 %	400-41 5	C-	70-73 %	350-36 5			

Homework. Assignments are online on iMathAS (<https://imathas.rationalreasoning.net/>) and are generally due on Thursdays & always at 11:59 pm. *If you see a different time, your browser for iMathAS is on the wrong timezone.* However, it is your responsibility to check the due dates of all assignments. No homework score will be dropped, however:

- For each question you will have *unlimited attempts* available. Hence, **getting 100% on assignments is entirely in your hands!** *Start early, work hard, strive to learn, and use your many resources* (ebook, workbook, videos, iMathAS forum, professor & TA office hours, discussing with peers, online graphers such as [Desmos.com](https://www.desmos.com) and [GeoGebra.org](https://www.geogebra.org)...) to successfully complete the assignments!
- You will have *up to 5 late passes* to extend your homework due dates (by 48 hours) if needed. Use your late passes *wisely* throughout the quarter, and only if you really need them!

Remember to use your UCRNetID@ucr.edu email address to login into iMathAS!

Forum etiquette: You are strongly encouraged to use the iMathAS forum to ask & answer questions.

- When you ask a question, include the work you have done and where you are getting stuck. Put careful thought into your post and do not simply ask: “*how do I do this?*”
- When you answer a question, give a verbal explanation so that your classmates can truly **learn** from your reply *beyond* the setting of the exercise they are working on.

Worksheets. are worked on during each discussion session and each is 18 points. You are encouraged to work in a group, but you must submit your own worksheet. Worksheets are due that night via Gradescope. There are no makeups -- instead your lowest 1 (of 8) worksheet scores will be dropped.

Quizzes. are on iMathAS and due on Sundays at 11:59 pm, and are meant to help you review the materials in preparation for the exams. There are a total of four quizzes (M5, M6, M7, M8) and each is 20 points.

- For each question you have only *3 attempts*.
- You may use your class notes, Rational Reasoning, Desmos, and iMathAS as well as collaborate with (**not copy**) your classmates. You are NOT allowed to use any other resources or websites.

Exams. are on iMathAS and handwritten work is submitted to Gradescope for completion. There are 3 exams (M5-6, M7 and cumulative) and your lowest score will be dropped.

- For each question you have only *1 attempt*.
- You may use your class notes, Rational Reasoning, Desmos, and iMathAS. You are NOT allowed to work with anyone, use the forum or use any other resources/websites.

Class participation. points are earned based on participation in class and in surveys. You earn 1 point for each class you participate in and for each survey/poll you participate in (earning up to a maximum of 18 points). **Discussion participation.** Earn 3 points for each discussion session that you participate in actively (up to a maximum of 24 points). There are 20 classes and 10 discussion sessions, so if you participate in each class and discussion, you will earn all of these points. *If you cannot attend the lecture and the discussions live regularly, contact the professor and TA.*

Homework Journal. The 9 homework journal entries are due at the same time as your homework (Thursdays at 11:59 pm) via Gradescope and each is 3 points. Your lowest (1 of 9) score will be dropped. For each journal entry:

- Carefully write up how to solve **FOUR** (or more) entire questions (not just parts of questions) from the iMathAS homework with enough detail for you to understand it if you look at your work in a few weeks
- Label questions (ex. label question 2 from 5.3 as 5.3 #2), and
- Summarize important concepts from that week’s homework. Often when completing online homework, students write notes that are hard to follow later. This is a *valuable learning tool* to help you solidify what you learned and be able to review it in the future.

Pre and Post-Tests. are supposed to measure how much your learning skills have developed during the course. These tests are on iMathAS and *graded by completion*. They are supposed to be hard, so don’t get discouraged if you find them difficult. Just try your genuine best on them and you’ll get full credit.

Accessibility. UC Riverside is committed to providing equal access to learning opportunities to students with documented disabilities. To ensure access to this class and to your program, please contact the Student Disability Resource Center (SDRC <http://specialservices.ucr.edu/disabilities/>) to engage in a confidential conversation about the process for requesting accommodations in the classroom. More information can be found on <https://sdr.c.ucr.edu>. If you are a student registered with the SDRC, please ensure you request your quarterly accommodations through rability.ucr.edu.

Cheating will be taken very seriously. Cheating will automatically result in an **F** in the course and be reported to the university. You will not be allowed to drop the course, and your case will be forwarded to the student conduct committee.

Don't Cheat! Cheating includes, but is not limited to:

- copying someone else's work
 - allowing someone to copy your work
 - submitting someone else's work
 - letting someone else submit your work
 - working with someone else or using external tools on assignments that are expected to be done individually
 - not following rules given on other assignments. For instance, not following rules on exams. These rules will be listed on each exam, but for example you **may not use a calculator** on an exam.
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Late Adds. If you add the course late, let your professor know immediately both once you start attending and once you successfully enroll. It is really important that you *do the coursework as soon as you try to enroll* to stay on top of the material. *Extensions on assignments due to late enrollment may not always be possible and must be requested to your professor no later than 1 week after enrollment.*

Special Notes for Online Interface:

Due to UCR's policy to limit the campus community's exposure to the COVID-19 virus, instructions for the entire quarter will be held online. Please read the following carefully and be prepared and equipped to attend classes online.

Lectures and discussion sessions will be held at your registered times (i.e., synchronously). For those who cannot attend lectures synchronously, lectures will be recorded. Discussion sessions are required and will not be recorded.

Please be flexible. Due to the COVID-19 epidemic, some changes may need to be made related to meeting time/interfaces/etc, but you will be contacted via announcements on Canvas with any changes. For instance, should your instructor or TA become sick, some changes will need to be made. Please be flexible and understanding.

Please be patient. We are all in this together. Please be patient and be understanding that the beginning may start out less smooth than in person classes while everyone is getting used to learning/teaching in an online interface.

Online Etiquette: The online nature of the course requires us to pay special attention to our behavior.

- **Audio.** Background noise should be minimized. Be sure to mute yourselves when you are not speaking in order to reduce background noise. You may want to use a headset to hear and be heard more clearly.
- **Focus.** Arrange for yourself to be in a quiet, distraction-free environment while you are in class so that you can stay focused.
- **Visual.** It is strongly recommended that all students use a profile picture of themselves (or video) as that will allow us to see each other, be more engaging, and feel more like a classroom environment. Keeping that in mind, if you use video the instructor and other students will, in general, be able to see you more clearly than we would in a physical classroom so make sure to dress appropriately and have an appropriate background.
- **Recordings.** It is important to maintain proper etiquette and keep in mind that classes, discussion sessions, and office hours may be recorded by the instructor for learning purposes.

What if I get sick with COVID-19 during the quarter? Let your instructor know immediately when you become too sick to complete work and provide appropriate documentation (such as a doctor's note). When you are better, contact the instructor immediately and provide appropriate documentation (such as a doctor's note) that you may return to school.
