

## Course Information

**Course:** Precalculus I (31) and Algebra Support for Precalculus I (231)

Instructor: Patrick Allmann

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Class meeting: 8:30-10:45am Tuesday and Thursday, 2021 (Jan 5 - Mar 18) These meetings are recorded and uploaded to Canvas.

Office Hours: Wednesday 10-12am on Zoom. Also by appointment.

Prerequisite: Intermediate Algebra (MATH 109, MATH 114 or MATH 130) or equivalent.

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## Student Learning Outcomes

Investigate, evaluate, and differentiate between algebraic and transcendental functions in their graphic, formulaic, and tabular representations. Synthesize, model, and communicate real-life applications and phenomena using algebraic and transcendental functions. Demonstrate sound algebraic techniques by applying proper mathematical notation to problems involving functions.

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## Textbook

OpenStax, Precalculus. OpenStax CNX. 2017. <https://openstax.org/details/books/prec calculus>

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## Assignments

Assignments consist of bimonthly A assignments, weekly B assignments, weekly discussions, one project, and two exams.

- A assignments consist of possibly challenging but hopefully interesting problems about functions, the real number line, and certain classes of real functions.
  - Solutions can be uploaded without penalty until Mar 19, the Friday before finals week. These assignments are assigned twice a month, so it's recommended your solutions are uploaded as often.
  - Corrections of drafts of solutions are accepted until Mar 19 as well.
  - Solutions of homework assignments are posted a few weeks after they are assigned. It is recommended, even for those who do not attempt the A assignments, to read the solutions posted.

- If the first draft is uploaded before solutions are posted, feedback will be given on all drafts uploaded. If the first draft is uploaded after solutions are posted, no feedback will be given.
  - B assignments are computational and assigned from the textbook.
    - Solutions can be uploaded without penalty until Mar 19. Weekly upload is recommended.
    - No solutions are posted but the answers are available in the textbook.
    - Feedback is provided for your solutions if they are uploaded no more than one week after the "Due Date" of the assignment as read on Canvas.
  - The writing prompts of the discussion board are more application based.
    - Your responsibilities include making a post responding to the prompt and replying to at least one other classmate's post, due March 19. Weekly post and reply is recommended.
    - Replies from the instructor to the student are made only if the student specifically asks them to reply.
  - The project should apply a concept learned in this class to a real-world example.
    - A topic proposal along with a cited source is due Feb 19.
    - The discussion post which involves a question and answer is due Mar 19.
    - The project is due Mar 19.
  - The two exams must be completed with the sole student's abilities, without any outside assistance. The only resources to be used are the textbook and the lectures. To receive full credit, every solution must be complete and correct. Each exam will resemble both A and B assignments. The final exam is cumulative.
    - The first exam is assigned Jan 29. The first draft is due Feb 5. The second draft is due Feb 12.
    - The second and final exam is assigned Mar 17, due Mar 24 at 11:59pm.
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## Grading

The A/B assignments, discussions, and project are graded for completion. In other words, if you follow the assignment instructions and satisfy each required item for that assignment, you will receive full credit. Make sure you understand what the assignment is asking you to do and have reviewed any examples from the notes or text before submitting your work. I encourage you to get in touch with me at least 48 hours before the assignment due date if you do not understand what is required of you for full credit.

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## "A" Grade

In order to receive an "A" in this course you must meet each of the following requirements within either Scheme 1 or Scheme 2.

## EITHER Scheme 1

- Complete all A assignments. This means writing all solutions to the given problems in your own words. The solution doesn't have to be correct, but an honest attempt must be made in order to complete the assignment.
- Complete all discussions.
- Complete the project.
- Complete the first and second draft of the first exam. Your second draft must implement all feedback and address all questions you receive from me on your first draft.
- Complete the final exam.
- Obtain an average of at least 85% on the two exams.
  - The two exams must be completed with the sole student's abilities, without any outside assistance. The only resources to be used are the textbook and the lectures. To receive full credit, every solution must be complete and correct. Each exam will resemble both A and B assignments. The final exam is cumulative.

## OR Scheme 2

- Obtain an average of at least 98% on the two exams.
- Instead of turning in a written final exam, perform a verbal final exam with the instructor via a Zoom meeting sometime during finals week (Mar 22-26). Contact the instructor for more details.

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## "B" Grade

In order to receive a "B" in this course you must meet each of the following requirements.

- Complete all B assignments. This means writing all solutions to the given problems in your own words. Copying any solution from someone else or any answers from the back will result in no credit received.
  - Complete at least 6 discussions.
  - Complete the project.
  - Complete the first and second draft of the first exam. Your second draft must implement all feedback and address all questions you receive from me on your first draft.
  - Complete the final exam.
  - Obtain an average of at least 60% on the two exams.
    - The two exams must be completed with the sole student's abilities, without any outside assistance. The only resources to be used are the textbook and the lectures. To receive full credit, every solution must be complete and correct. Each exam will resemble both A and B assignments. The final exam is cumulative.
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## **"C" Grade**

In order to receive a "C" in this course you must meet each of the following requirements.

- Complete at least 6 B assignments. This means writing all solutions to the given problems in your own words. Copying any solution from someone else or any answers from the back will result in no credit received.
  - Complete at least 4 discussions.
  - Complete the project.
  - Complete the first and second draft of the first exam. Your second draft must implement all feedback and address all questions you receive from me on your first draft.
  - Complete the final exam.
  - Obtain an average of at least 50% on the two exams.
    - The two exams must be completed with the sole student's abilities, without any outside assistance. The only resources to be used are the textbook and the lectures. To receive full credit, every solution must be complete and correct. Each exam will resemble both A and B assignments. The final exam is cumulative.
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## **"C-", "D" and "F" Grades**

If the "C" requirements are met except for either of the first two, then you will receive a "C-".

If you have not met either all "A" requirements or all "C-" requirements, then you will receive a "D".

If you have not completed either the project or the final exam, then you will receive an "F".

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## **"+" Grades**

- "A+" is rewarded if both Schemes for an "A" grade are met instead of either one or the other.
- "B+" is rewarded if the "B" requirements are met and at least two A assignments are completed.
- "C+" is rewarded if the "C" requirements are met and at least 6 discussions are completed.

## **"-" Grades**

- "A-" is rewarded if the "B+" requirements are met and an average of 70% on the two exams is obtained.
  - "B-" is rewarded if the "C+" requirements are met and an average of at least 60% on both exams is attained.
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## **Alternate form of labor**

If, at any point from now until Mar 19, you wish to negotiate an alternate form of labor for a similar grade, please contact me.

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## **Academic Integrity**

All assignments, discussions, projects and exams must be completed by you. If you cannot solve a problem, please ask me for help. If you copy a solution from somewhere else, you will receive no credit for that assignment. If you plagiarize any assignment, have someone else complete your project or copy a solution on an exam, or work with anyone else on an exam, you will either receive a "Incomplete" on the assignment or you may receive an "F" in this course. You may also be reported to the division dean and dean of students.

[https://deanza.edu/policies/academic\\_integrity.html](https://deanza.edu/policies/academic_integrity.html)

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## **Adds/Drops/Withdrawals**

Saturday, January 16: Last day to add. If I give you an add code, please use it as soon as possible in case there are any issues. I do not have the power to add students after January 16 for any reason.

Monday, January 18: Last day to drop without a "W". It is your responsibility to drop this class. Do not assume that I will drop you if you stop participating in class.

Friday, February 26: Last day to drop with a "W".

**Student Learning Outcome(s):**

- \* Investigate, evaluate, and differentiate between algebraic and transcendental functions in their graphic, formulaic, and tabular representations.
- \* Synthesize, model, and communicate real-life applications and phenomena using algebraic and transcendental functions.