The Guide to Taking Precalculus Courses

SPRING 2024

Philosophy

This Guide is intended for students who are taking pre-calculus mathematics courses in Colorado State University's Precalculus Program.

Entry-level mathematics courses intended to prepare students to take other university courses that use mathematics are called pre-calculus courses. These courses include College Algebra, Logarithmic and Exponential Functions, and Trigonometry. At Colorado State, all pre-calculus courses are taught in the Precalculus Program.

Students who take pre-calculus mathematics are an academically diverse group. They have different backgrounds, aptitudes, attitudes, and goals. In the early 1970's the CSU Mathematics Department became convinced that these students were not well served in traditional classrooms where, in spite of these differences, everyone is expected to learn in similar ways and at similar rates. This led to the development of the Precalculus Program.

Since its inception, the management and development of the Precalculus Program has been guided by the beliefs that college students must take the responsibility and initiative for their own learning and that given suitable learning resources, adequate time, and sufficient positive encouragement all college students can master entry level mathematics. The instructional design of these courses is based on a mastery program, meaning that students will achieve a minimum level of proficiently with each topic before proceeding to the next.

In the past forty-eight years, the Precalculus Program has developed into a flexible instructional system that gives all CSU students the opportunity to master pre-calculus mathematics by providing them choices of content, an array of learning resources, variability in credits and deadlines, and various levels of individual support and encouragement. In 1996 the university recognized the quality of the Individualized Mathematics Program (the former name of the Precalculus Program) by awarding Dr. Klopfenstein, one of its long-time directors, the N. Preston Davis Award for Instructional Innovation.

The next evolution of the Precalculus Program was launched Fall Semester of 2005 with fully online instructional material and the ability for students to work on their Precalculus courses nearly 24x7. The College of Natural Sciences awarded Dr. Paul Kennedy, a former director of the Precalculus Program, the 2007 Excellence in Teaching Award for Teaching Innovation in recognition of the design and development of this online instructional platform. In 2008, Dr. Kennedy was honored by being selected as a University Distinguished Teaching Scholar.

This Guide provides students in the Precalculus Program with the information they need to organize and manage their learning experiences.

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General Information

Location

The Precalculus Center is located on the first floor in the Weber Building.

Inside the Precalculus Center:

Learning Center	Weber 136
Resource Desk	Weber 136
Office	Weber 137
Testing Center	Weber 138

Hours

The **Precalculus Center** is open from January 16th – May 3rd.

Monday – Thursday	10:00am - 8:00pm
Friday	10:00am – 4:00pm

The Precalculus center will be closed March $11^{\text{th}} - 15^{\text{th}}$.

The **Precalculus website** is active $24x7^*$ from January 16^{th} – May 3^{rd} .

*A maintenance window is reserved from **6:00am - 9:00am daily**. If you use the system during this time, you do so at your own risk. The system may be taken offline without warning during this window to perform system maintenance.

Precalculus Professional Staff

Prof. Steve Benoit, Co-Director (He, His, Him) Ms. Anita Pattison, Co-Director (She, Hers, Her) Mr. Will Bromley, Associate Director (He, His, Him) Mr. Patrick Orchard, Instructor (He, His, Him)

Contact Information

Precalculus Director: 137 Weber Building E-mail: precalc_math@colostate.edu Phone: (970) 491-5761

> To comply with Federal privacy laws, <u>we cannot give out personal information over the phone</u>. You must either:

- meet with a director and bring your RamCard, or
- send an email from your CSU email including your full name and CSU ID number.

COVID-19 Information

Important information for students:

All students are expected and required to report to the COVID Reporter (https://covid.colostate.edu/reporter/) when:

- You suspect you have symptoms of COVID, regardless of whether or not you are vaccinated and even if your symptoms are mild
- You have tested positive for COVID through a non-CSU testing site, such as home test or test at a pharmacy
- You believe you may have been exposed to COVID go to the COVID Reporter and follow the guidance under "I believe I have been in close contact with someone who has COVID-19." This guidance will depend upon your individual circumstances

You will not be penalized in any way for reporting symptoms or concerns.

Do not ask us as your instructors to report for you. It is your responsibility to report through the COVID Reporter promptly.

As your instructor we may not ask you about vaccination status or if you have COVID but you may freely volunteer to send me information from a public health official - if you have been asked to isolate or quarantine.

When you complete the COVID Reporter, the CSU Public Health office is notified. Once notified, that office will contact you and, depending upon each situation, will conduct contact tracing, initiate any necessary public health requirements and notify you if you need to take any steps.

If you do not have internet access to fill out the online COVID-19 Reporter, please call (970) 491-4600.

For the latest information about the University's COVID resources and information, including FAQs about the spring semester, please visit the **CSU COVID-19 site** <u>https://covid.colostate.edu/</u>.

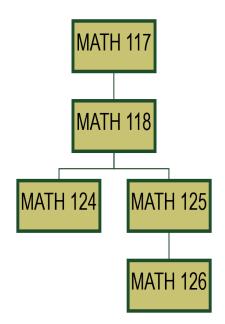
Precalculus Courses

Each course is one-credit. Below are the course prerequisites for each of the five courses as well as links to the PDFs of the appropriate formal course syllabi (including gtPathways-specific information) and the course outlines and objectives.

MATH 117: College Algebra in Context I, Prerequisite: (1) <u>Course syllabus</u> <u>Course outline and objectives</u>

MATH 118: College Algebra in Context II, Prerequisite: MATH 117 or (2) <u>Course syllabus</u> <u>Course outline and objectives</u>

MATH 124: Logarithmic and Exponential Functions, Prerequisite: MATH 118 or (2) <u>Course syllabus</u> <u>Course outline and objectives</u>



MATH 125: Numerical Trigonometry, Prerequisite: MATH 118 or (2)

<u>Course syllabus</u> <u>Course outline and objectives</u> Figure 1 Course Prerequisite Structure

MATH 126: Analytic Trigonometry,

Prerequisite: MATH 125 or (2) <u>Course syllabus</u> Course outline and objectives

(1) To register for MATH 117, you must satisfy *one* of the following:

- earn an appropriate score on the Colorado State University <u>Math Placement Tool</u> or the ELM (<u>Entry Level Mathematics</u>) Exam.
- complete MAT 055, MAT 093, MAT 099, or MAT 0300, with a C- or higher at a Colorado Community College.

(2) To register for MATH 118 or higher, you must satisfy <u>one</u> of the following:

- an appropriate placement on the Math Placement Tool.
- satisfactorily completing the prerequisite course(s) at Colorado State.
- transfer credit for course(s) from another college or university.

You may take as many as five courses in a semester as long as the prerequisite for each course is satisfied or included in the package for which you are registering. Use RAMweb to register for Precalculus courses. You must register for all Precalculus courses you plan to take during the semester

by the add deadline. The add, drop, and withdrawal period deadlines for the Precalculus courses are given in Appendix IV.

Notice that being allowed to register for a course does not imply that you are eligible to take the course. If you are unable to access the online course materials because of a prerequisite problem, come to the Precalculus Office where the staff will work with you to determine whether and how you satisfied the course prerequisite.

Weekly Expectations and Due Dates

The University expects students to be spending approximately three hours per week per credit on their courses (page 2 of the "Advising and Registration" section of the General Catalog). You have the flexibility to arrange which hours each week you want to schedule to complete your math. It is best to plan on multiple one to two-hour study sessions throughout the week instead of one long study session once a week. You should expect to spend at least 20 minutes per week per course visiting with a course assistant during office hours in the Precalculus Learning Center. The hours of the Precalculus Center are located on page 2 of this guide.

All students are responsible for completing the required coursework on time. Use the table in Appendix II or III to find the due dates for your coursework based on the number of Precalculus courses in which you are registered. To recover from missed due dates, you may reduce the number of Precalculus courses in which you are enrolled to get a new set of due dates and potentially recover lost points. Speak with a Precalculus Program Director if you have any questions or concerns.

Learning Resources in the Precalculus Program

Below is a list of resources available to help you succeed in the Precalculus Program.

e-*text*

- Contains the course objectives for each unit and provides printable PDF files of lecture notes.
- You will have automatic access to the e-text without purchasing a physical copy or access code from the CSU Bookstore. Once the drop date passes (see Appendix IV), the CSU Bookstore will charge your account the cost of the e-text.
- The e-text grants access to all registered Precalculus courses for that semester. Following semesters will require additional purchases; however, you will retain access to the e-text for any courses you complete.

Video Lectures

- Lectures present a single objective at a time.
- Can be viewed multiple times and can be paused to allow you to take notes.
- "Try This" problems: You should try to solve these problems on your own and then check your solution by watching the video solution.

Learning Center

• Staffed with undergraduate learning assistants trained to help you learn the Precalculus content who provide walk-in tutoring **46 hours a week!**

- The most current information about the on-campus and the virtual Learning Center will be posted via the "Getting Help" link.
- Do <u>not</u> expect a learning assistant to just give you answers, they will expect you to have done your part by studying the online materials and making a serious effort to understand and solve problems.

Solutions

- For every exam taken, you will be able to review the exam and see a solution to each problem. Access each exam taken via the links located at the end of each unit.
- Keep organized scratch work when you take an exam. It is helpful for you to have your scratch work as you review the exam solutions and when you have a need to discuss a problem with a learning assistant.

Resource Desk

Calculators

- Texas Instruments TI-83® or TI-84® Graphing Calculators are needed for all Precalculus courses.
- Able to be checked out from the Precalculus Resource Desk with your RamCard.
- These calculators may **ONLY** be used in the Precalculus Center.
- Calculator manuals maybe checked out for daily use.
- Texas Instruments offers a free 90 day trail of their TI-84 emulating software: <u>http://education.ti.com/en/us/products/computer_software/ti-smartview-software/ti-smartview-emulator-software-for-the-ti-84-plus-family/tabs/overview</u>
- Texas Instruments also maintains a listing of TI-83/84 tutorial websites: <u>http://education.ti.com/en/us/customer-support/training_online_tutorials/graphing-calculators</u>

Textbooks

• May be checked out for a two-week period with your RamCard.

Laptops

- Laptop computers can be borrowed to be used **ONLY** in the Precalculus Center. Headphones
- May be checked to be used **ONLY** in the Precalculus Center with your RamCard.

Longboards/Skateboards/Scooters

• Can be stored at the Resource desk.

Padlocks

• May be checked out for daily use to secure your belongings in a locker when you need to take a proctored exam.

Supplemental Websites

- <u>Khan Academy</u> is a free resource. It may require you to set up an account.
- <u>Purple Math</u> has many lessons for free. However, Purple Math Plus requires you to enroll in monthly or yearly plan.
- <u>West Texas A & M University Virtual Math Lab</u> is a free online tutorial.

Course Procedures and Organization

User's Exam

The user's exam tests students about policies, procedures, and the instructional resources of the Precalculus program. This guide contains all the information needed.

Setting	Number of	Minimum	Number of	Passing
	Questions	Score to Pass	Attempts	Unlocks
Unproctored	20	16	Unlimited	Skills Review Exam

Skills Review

The skills review exam contains basic mathematical skills necessary for successful completion of the course. After the first attempt, videos to help you brush up on your mathematical skills are unlocked.

Setting	Number of	Minimum	Number of	Passing
	Questions	Score to Pass	Attempts	Unlocks
Unproctored	10	8	Unlimited	Learning Objective 1.1

Learning Objectives

Each unit has five learning objectives. There is an overview video to introduce the topic being studied. The sub-objectives have many example videos to help gain a fuller understanding of the topic. You can attempt the "Try This" problems on your own, then look at the video for a solution. At the end of the learning material for the objective, you will find the link to the Required Assignment.

Required Assignments

There is a required assignment for each learning objective. These assignments help solidify your knowledge of the content from the video lectures. You can complete these assignments multiple times for extra practice.

Setting	Number of	Minimum	Number of	Passing
	Questions	Score to Pass	Attempts	Unlocks
Unproctored	3	3	Unlimited	Next Learning Objective

Review Exams

There are four review exams per course. In order to gain access, you must have completed the required assignment for that unit <u>AND</u> passed the previous unit's proctored exam. If the review exam is completed by the deadline, you will earn 3 points; else, you will earn no points (see Grading on page 11). A good way to study for the final is by retaking the review exams.

Setting	Number of	Minimum	Number of	Passing
	Questions	Score to Pass	Attempts	Unlocks
Unproctored	10	8	Unlimited	Current Unit Exam

Unit Exams

There are four unit exams per course. You are eligible to take the unit exam once the review exam for that unit is passed. You can take the unit exam an unlimited number of times; however, <u>every two times</u> <u>you do not pass you must repass that unit's review exam</u>. Once the unit exam is passed, you can take it an unlimited amount of times until the due date for the final exam. If you have passed the final exam, you may retest until the last day of classes for the current semester. Only your best passing score will count toward your grade (see Grading on page 12).

Setting	Number of	Minimum	Number of	Passing
	Questions	Score to Pass	Attempts	Unlocks
Proctored (40 minute time limit)	10	8	2 non-passing attempts at a time, unlimited once you pass	Next Unit's Review Exam or the Final Exam

Final Exam

The final exam is cumulative and is only unlocked after the unit 4 exam is passed. You have unlimited attempts to take the final exam until the end of testing on the due date. If you have passed the unit 4 exam but have not passed the final by the date it is due, you will be allowed one* attempt the next business day.

Setting	Number of	Minimum	Number of	Passing
	Questions	Score to Pass	Attempts	Unlocks
Proctored (75 minute	20	16	Unlimited	Next Precalculus course (if you
time limit)				have at least 54 points in the
				course, retest as needed)

Review Previous Exams

At any time, if you wish to review the exams you have taken during the semester, click the exam link in the course outline.

Retesting

There are no restrictions on the number of times you may take an exam. Regardless of how many times you take an exam, only your best passing score will count toward your final grade. Once you have answered a question correctly twice on a proctored exam, you will be able to skip that question and still have it counted as a correct answer.

You may retest in any previously passed unit of any course until the due date for the Final Exam for that course. If you have passed the Final Exam, you may continue retesting until 4pm on the last day of classes for the current semester. You may need to retest to earn enough points to complete the course and/or you may wish to retest to improve your grade.

If you are taking several courses, you may retake exams from an earlier course even though you have gone on to another course. For example, if you finished your first course but only earned a "C" grade, you may proceed to another course and at the same time continue to work on the first one to earn a higher grade.

Course Completion

In addition to passing the four unit exams and the final exam with a score of at least an 80% on each exam, you must earn 54 points or higher to complete the course (see Grading on page 12).

Testing

Students enrolled in CSU Online courses (sections 801 and 809) will complete their proctored exams via a webcam on their personal computer. Instructions on how to test will be in the course outline. In order to maintain academic integrity, students must make sure the online video of the testing session is recording the testing session correctly. Students will need to show their photo ID when requested. They will also need to scan their testing environment. This video should include a 360-degree pan of the room, including the desktop surface and the walls. The webcam should remain focused on the student during the testing session and the webcam should not be covered. Students should share their entire computer desktop screen while testing. Failure to follow these guidelines may result in an academic misconduct report and a grading penalty. Online students may also test on campus in the Precalculus Testing Center.

On-campus students (sections 001, 002, 003, 004, 005, 006, and 007) will test in the Precalculus Testing Center (Weber 138).

The Testing Center has the same walk-in hours as the Precalculus Center (see General Information on page 4) with the following notes:

- Testing Center doors close 15 minutes before closing time, and no new exams may be started.
- All exams **MUST** be submitted by closing time.

Mechanics of Taking an Exam in the Testing Center

- 1. Bring your <u>RamCard</u> and a <u>pen or pencil</u> to Testing. *All other items must be stored in a* Precalculus *locker*. Note: a calculator and scratch paper is provided.
 - Writing on the hand, cell phones, and other personal electronic devices will be viewed as reference material, which is prohibited in Testing
- 2. A staff member will assign you to a computer and give you scratch paper
- 3. Place your RamCard (with your picture facing up) at the computer. Enter your CSU ID number to begin the exam.
- 4. Acknowledge the CSU Honor Pledge. Your exam and a calculator will show up on screen.
- 5. The computer will display how much time you have left. Your exam will automatically submit once time runs out.
- 6. Once finished, take your belongings, and check out with a Precalculus staff member. *Be sure to keep your scratch work!*
- 7. Check your results online and use your scratch paper to go over missed problems with a learning assistant.

If at any point you need assistance, raise your hand and a proctor will come help you. Page | 11

Grading

There are 72 total points possible in each course. The final grade is determined by the sum of your best scores for each of the four Unit Exams and the Final Exam, plus any points earned from passing the Review Exams by the applicable due date. The table below shows the breakdown of how you can earn points:

Exam Type	Number of Exams	Points Possible for	Total Number of
		Each Exam	Points Possible
Review Exam	4	0 or 3	0 to 12
Unit Exams	4	8 to 10	32 to 40
Final Exam	1	16 to 20	16 to 20

You can find a breakdown of the points you have earned in the class at the top of the webpage for your course. Please note that no grades will be recorded in Canvas.

When you have completed your courses, MATH 117, MATH 118, MATH 124, MATH 125, or MATH 126, by passing all four Unit Exams, in order, and the Final Exam with best scores of 80% or better, you are assigned a grade of A, B, C, or U, according to the following table:

Total Points	Grade
65 to 72	А
62 to 64	В
54 to 61	С
Not completed (< 54)	U

If you have not completed a Precalculus course for which you are registered, you are assigned a grade of U (unsatisfactory). The U grade is a permanent transcript entry but does not affect the CSU grade point average. However, some universities and financial aid agencies treat the U grade as an F when evaluating student records for graduate or transfer admissions or for awarding financial aid. To earn credit for a course in which a U grade was assigned, you would need to register for the course again and satisfactorily complete it from the beginning.

A grade of F is assigned in special circumstances involving academic misconduct.

An I (incomplete) may be assigned if you have worked responsibly and consistently on a course during the semester, *but circumstances that were beyond your control and could not have reasonably been anticipated prevented completion of the course*. If you believe you qualify for an incomplete on this basis you should discuss your situation with a Director in the Precalculus Office.

Questions and appeals concerning grades should first be directed to one of the Precalculus Directors in the Precalculus Office (Weber 137) or send an email from your CSU email account to Precalc_math@colostate.edu. Be sure to include your CSU ID number. If differences cannot be satisfactorily resolved with a Precalculus Director, further appeals may be pursued in accordance with the policies on Grading and Grade Appeals under "Advising and Registration" in the *General Catalog*.

Disabilities

Colorado State University is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations must first contact the Student Disability Center before requesting accommodations for their Precalculus course(s). The <u>Student</u> <u>Disability Center</u> is located in room 121 of the TILT Building. Their phone is (970) 491-6385 (V/TDD). Students who need accommodations must speak with a Precalculus Director in a timely manner to discuss needed accommodations.

Student Case Management

Occasionally a student may experience extenuating circumstances. <u>Student Case Management &</u> <u>Referral Coordination</u> provides crisis prevention and intervention services. In difficult situations such as medical, mental health, behavioral, personal or family crisis, illness or injury, a student may find it difficult to navigate the resources and services available. Student Case Managers consult with students, faculty, staff, families, and providers to offer guidance on the next best steps.

Basic Needs Resources

"The Basic Needs Collective at CSU is comprised of Rams Against Hunger, Student Case Management, Off-Campus Life, Housing and Dining, and other wonderful partners across CSU's campus and the Fort Collins Community. If you or someone you know is struggling to meet their Basic Needs, please see these resources, or make an appointment with a CSU Case Manager for more personalized information.

No one should have to forgo meeting their basic needs at the expense of a degree, or meet the stigma that comes with being Basic Needs insecure alone. With your help, we hope to begin dismantling this stigma, and reforming the systems that contribute to basic needs insecurities in the first place, beginning at CSU." <u>https://studentaffairs.colostate.edu/basic-needs/</u>

Diversity Statement

The Precalculus Center supports the University Diversity Statement knowing that Colorado State University is committed to embracing diversity through the inclusion of individuals reflective of characteristics such as: age, culture, different ideas and perspectives, disability, ethnicity, first generation status, familial status, gender identity and expression, geographic background, marital status, national origin, race, religious and spiritual beliefs, sex, sexual orientation, socioeconomic status, physical appearance, medical diagnosis, documentation status, and veteran status with special attention given to populations historically underrepresented or excluded from participation in higher education. The University's commitment to diversity is a longstanding one that reflects our role and mission as a land-grant institution.

The Precalculus center also acknowledges with respect, that the land we are on today is the traditional and ancestral homelands of the Arapaho, Cheyenne, and Ute Nations and peoples. This was also a site of trade, gathering, and healing for numerous other Native tribes. We recognize the Indigenous peoples as original stewards of this land and all the relatives within it. As these words of acknowledgment are spoken and heard, the ties Nations have to their traditional homelands are renewed and reaffirmed.

CSU is founded as a land-grant institution, and we accept that our mission must encompass access to education and inclusion. And, significantly, that our founding came at a dire cost to Native Nations and peoples whose land this University was built upon. This acknowledgment is the education and inclusion we must practice in recognizing our institutional history, responsibility, and commitment.

Academic Misconduct

Academic misconduct undermines the educational experience at Colorado State University, lowers morale by engendering a skeptical attitude about the quality of education, and negatively affects the relationship between students and faculty/instructors.

Faculty/Instructors are expected to use reasonably practical means of preventing and detecting academic misconduct. Any student found responsible for having engaged in academic misconduct will be subject to academic penalty and/or University disciplinary action.

Students are encouraged to positively impact the academic integrity culture of the University by reporting incidents of academic misconduct. (See the General Catalog.)

Possession of visually, audibly, or tactilely accessible materials in the Precalculus Testing Center or during an online proctored exam that could assist the student in earning a higher score on an examination and attempting to misrepresent information are examples of academic misconduct.

The University Policy on Academic Integrity is vigorously enforced in the Precalculus Program. Students judged to have engaged in academic misconduct may be assigned a reduced grade or a grade of F for the course and/or other penalties may be imposed. All incidents of academic misconduct will be reported to Conflict Resolution and Student Conduct Services for possible further disciplinary action. Incidents of impersonation may be referred to the University Police for criminal investigation.

Any evidence that a student is engaging or has engaged in an act of academic misconduct will be reported to a Director of the Precalculus Program. The Director will give the student involved the opportunity to provide his/her explanation of the incident. If the student admits to engaging in academic misconduct or if the Director judges that a preponderance of evidence exists to support the allegation of academic misconduct, the Director may impose an academic penalty and will report the incident to Conflict Resolution and Student Conduct Service.

If the student disputes the allegation of academic misconduct, he/she should request a hearing with the Conflict Resolution and Student Conduct Service. The University Hearing Officer will determine whether a preponderance of evidence exists in support of the allegation of academic misconduct. If the University Hearing Officer finds insufficient evidence or clears the student of charges, the penalty imposed by the Precalculus Director will be rescinded and the student's previous status in the Precalculus Program restored. If the University Hearing Officer finds the student culpable, the Hearing Officer may impose additional University disciplinary sanctions. For further information, see "Students' Responsibilities" under "Policies and Guiding Principles" in the *General Catalog*.

- 1. Which <u>two</u> of the following are true about the last day to add and withdraw from Precalculus courses this semester?
 - a. You may add Precalculus courses at any time during the semester.
 - b. You may add Precalculus courses until the add period ends which occurs at the end of the first week of classes.
 - c. You may withdraw from Precalculus courses at any time during the semester.
 - d. You may withdraw from Precalculus courses until the withdrawal period ends which occurs at the end of the 12th week of classes.
- 2. Imagine you are registered for 2 of the one credit Precalculus courses this semester. Based on University expectations, how many hours should you spend <u>each week</u> working on completing these 2 courses?
 - a. 1
 - b. 2
 - c. 4
 - d. 6
 - e. 8

3. Which of the following are recommend tips to study math?

There is at least one correct response. Choose all correct responses.

- a. Learn from your mistakes
- b. Practice lots of problems
- c. Plan frequent study sessions
- d. Ask for help from the learning assistants
- 4. In order to practice your problem-solving skills, every course in the Precalculus Program has Required Assignments. Which of the following are true about Required Assignments? *There is at least one correct response. Choose <u>all</u> correct responses.*
 - a. Required Assignments must be completed in the Precalculus facilities.
 - b. You must answer three problems correctly to complete the Required Assignment.
 - c. Every unit has five Required Assignments.
 - d. Required Assignments can be completed multiple times for additional practice.
- 5. Which of the following are true about office hours offered by the Precalculus Program? *There is at least one correct response. Choose <u>all correct responses</u>.*
 - *a*. Learning assistants will expect you to have done some preparation before working with you.
 - b. Learning assistants will give you a private lecture.
 - c. Tutoring is available on a walk-in basis.
 - d. There is no fee for tutoring.
 - e. There is both on-person and online help available.

- 6. Which of the following statements are true regarding Review Exams? *There is at least one correct response. Choose all correct responses.*
 - a. An appropriate way to study for the Final Exam is to retake the four unit Review Exams.
 - b. Before you can take the Unit 2 Review Exam, you must pass both the Unit 1 Review and Unit Exams.
 - c. If you pass the unit Review Exam for the first time by the due date, you will receive 3 points.
 - d. If you do not pass a Unit Exam after two attempts, you must pass the Review Exam again to earn two additional attempts on the Unit Exam.
- 7. Which of the following must be completed before you may take the Unit 2 Review Exam? *There is at least one correct response. Choose all correct responses.*
 - a. You must have attempted, but may have not yet passed, the Unit 1 Exam.
 - b. You must have passed the proctored Unit 1 Exam.
 - c. You must have passed the Unit 1 Review Exam.
 - d. You must have completed all five of the Unit 2 Required Assignments.
- 8. Reference materials of any kind are not allowed when taking a proctored exam. Which <u>two</u> of the following items are you allowed while testing?
 - a. a pencil or pen
 - b. your notes
 - c. your RamCard (CSU Student ID card) or picture ID
 - d. study material written on your hand
 - e. a cell phone
- 9. Which of the following must be completed before you may take a Unit 3 Exam? *There is at least one correct response. Choose <u>all</u> correct responses.*
 - a. You must have completed all five of the Unit 3 Required Assignments.
 - b. You have attempted, but not yet passed the Unit 2 Exam.
 - c. You must have passed the Unit 3 Review Exam.
 - d. You have passed the Unit 2 Exam.
- 10. Which of the following are learning resources offered by the Precalculus Program? *There is at least one correct response. Choose <u>all correct responses</u>.*
 - a. online video lectures
 - b. solutions to exam problems
 - c. free, "walk-in" or "online" tutoring (Office Hours)
 - d. a Resource Desk, where supplemental texts and calculators can be checked out
- 11. Which two of the following are options if you do not pass the Final Exam by the due date?
 - a. If you are eligible to take the Final Exam by the due date listed and have not yet passed it, you will be allowed one attempt on the Final Exam the next business day.
 - b. You can keep trying to pass the Final Exam until the end of the semester.
 - c. You may reduce the number of courses in which you are enrolled to get a new set of due dates and have more time to pass the Final Exam.

12. Imagine you just took the Unit 3 Exam in a Precalculus course for the second time. Reviewing your exams, you learned that you did NOT earn a passing score on either of your two attempts. Which of the following can you do?

There is at least one correct response. Choose <u>all</u> correct responses.

- a. Retake a Unit 1 Exam to improve a previous score.
- b. Retake and pass the Unit 3 Review Exam and then take the Unit 3 Exam again.
- c. Retake the Unit 3 Exam again.
- d. Take a Unit 4 Exam.
- e. Start working on the Unit 4 Required Assignments.
- 13. Imagine you just took the Final Exam in a Precalculus course for the second time. Reviewing your exams, you learned that you did NOT earn a passing score on either of your two attempts. Which of the following can you do?

There is at least one correct response. Choose all correct responses.

- a. Add your highest Final Exam score to your point total to see if you have earned at least 54 points.
- b. You **must** repass all four of the unit Review Exams to be able to take the Final Exam two more times.
- c. Retake the 4 unit reviews exams to study more.
- d. Keep retaking the Final Exam an unlimited number of times until your due date.
- 14. Which of the following are characteristics of the course due dates for Precalculus courses? *There is at least one correct response. Choose <u>all</u> correct responses.*
 - a. You cannot take a Review Exam after the due date for that exam.
 - b. The first time you pass a Review Exam before its due date, you will receive 3 points.
 - c. The Final Exam must be passed before midnight (MST) on the due date listed.
 - d. If you are eligible to take the Final Exam by the due date listed and have not yet passed it, you will be allowed one attempt on the Final Exam the very next business day.
 - e. If you do not pass a Review Exam by its due date, you will receive zero points for the Review Exam but will still need to pass it to move on with the course material.
- 15. You just passed the Final Exam for your course. You check your point total at the top of the course outline and see that you have a total of 52 points in the course. Which of the following are true?

There is at least one correct response. Choose <u>all</u> correct responses.

- a. You can keep retesting to improve your grade **until** the due date for your Final Exam.
- b. You can keep retesting to improve your grade **after** the due date for your Final Exam.
- c. You cannot retest.
- d. You must keep retesting to earn at least 54 points to pass the course.
- e. You cannot start your next course until you have at least 54 points in your current course.

16. What happens if you do **NOT** pass a Review Exam by the due date?

There is at least one correct response. Choose <u>all</u> correct responses.

- a. You will lose three of the 72 points possible for the course.
- b. It is still possible to get an A in the course if you only miss one Review Exam due date.
- c. You cannot pass the course if you miss all four Review Exam due dates.
- d. (Re)take the Review Exam until you do pass it.
- e. You can get help from the learning assistants in the Precalculus Learning Center.

17. The current point total for your course is available in the course outline. Which of the following scores are included in your point total?

There is at least one correct response. Choose <u>all</u> correct responses.

- a. Your best Final Exam score.
- b. Your best Final Exam score if it is at least 80%.
- c. Your best passing Unit Exam scores.
- d. Your best Unit Exam scores.
- e. Points earned by passing a Review Exam for the first time by the due date for that exam.
- 18. What must you do to earn credit for a course?

There is at least one correct response. Choose <u>all</u> correct responses.

- a. You must achieve a minimum passing score (70%) on each of the Unit Exams for the course.
- b. You must achieve a minimum passing score (80%) on each of the Unit Exams for the course.
- c. You must achieve a minimum passing score (70%) on the Final Exam for the course.
- d. You must achieve a minimum passing score (80%) on the Final Exam for the course.
- e. You must earn a minimum number of points.
- 19. At the end of the semester, you have 65 points in your Precalculus course. The grading scale shows that the range for an A grade is 65–72 points. What grade will be recorded on your transcript?
 - a. A
 - b. A-
 - c. B+
 - d. B
 - e. C
- 20. The grade of U does not affect a student's grade-point average at CSU. Which <u>two</u> of the following are also true when you are assigned a grade of U (Unsatisfactory) for a course?
 - a. The U is a permanent entry on your transcript.
 - b. The U will be removed from your transcript if you finish the course in a future semester.
 - c. You can continue with the course the next semester and have all of your unit exam scores carry over from the semester the U was assigned.
 - d. In order to receive credit for the course, you must register for the course again and complete it from the beginning.

Appendix II: Exam Dues Dates, Enrollment in One or Two Courses, Spring 2024

All Precalculus students are responsible for completing the required coursework on time. Use this table to determine the due dates for your coursework if you are enrolled in one or two Precalculus Courses. Follow the column that represents how many Precalculus courses you are registered for this semester.

	2 Courses	2 Courses	1 Course	1 Course
1 st Course	Track A ¹	Track B ¹	Track A ²	Track B ²
1 st Review Exam*	Mon., Jan. 29	Wed., Jan. 31	Thurs., Feb. 1	Mon., Feb. 5
2 nd Review Exam	Wed., Feb. 7	Fri., Feb. 9	Wed., Feb. 21	Fri., Feb. 23
3 rd Review Exam	Fri., Feb. 16	Tues., Feb. 20	Mon., Mar. 18	Wed., Mar. 20
4 th Review Exam	Tues., Feb. 27	Thurs., Feb. 29	Thurs., Apr. 4	Mon., Apr. 8
Final Exam**	Mon., Mar. 4	Wed., Mar. 6	Tues., Apr. 16	Thurs., Apr. 18
2 nd Course				
1 st Review Exam	Thurs., Mar. 21	Mon., Mar. 25		
2 nd Review Exam	Mon., Apr. 1	Wed., Apr. 3		
3 rd Review Exam	Wed., Apr. 10	Fri., Apr. 12		
4 th Review Exam	Fri., Apr. 19	Tues., Apr. 23		
Final Exam	Thurs., Apr. 25	Mon., Apr. 29		

¹ Follow the due dates listed for **Track A** if one of the courses you are taking is **MATH 125**, otherwise follow the due dates for **Track B**.

² Follow the due dates listed for **Track A** if you are taking **MATH 117** or **MATH 124**. Follow the due dates for **Track B** if you are taking **MATH 118**, **MATH 125**, or **MATH 126**.

* Review Exam

- If passed by midnight (MST) on the due date listed, you will receive 3 points toward your final grade.
- If you do not pass a Review Exam by its due date, you will receive zero points for the Review Exam but will still need to pass it to move on with the course material.

Unit Exam

- There are no due dates for the Unit Exams. However, you must pass the proctored Unit Exam **before** you are able to take the Review Exam for the next unit.
- You may retest on Unit Exams to improve your score until the Final Exam due date for that course.

** Final Exam

- Must be passed by midnight (MST) on the due date listed.
- If you are eligible to take the Final Exam by the due date listed and have not yet passed it, you will be allowed one attempt on the Final Exam the next business day.
- If the Final Exam is passed, you may retest on any exam (Unit or Final) for that course until 4:00pm on May 3, 2024. You may need to retest to earn enough points to complete the course and/or you may wish to retest to improve your grade.
- If you do not pass the Final Exam, you may reduce the number of courses in which you are enrolled to get a new set of due dates and potentially recover lost points. Refer to Appendix IV for Precalculus Registration Deadline Dates. Speak with a Precalculus Director if you have any questions or concerns.

Note: Dates are subject to change, log into the Precalculus Program website and refer to the "My Exam Deadlines" link.

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Appendix III: Exam Dues Dates, Enrollment in Three or More Courses, Spring 2024

All Precalculus students are responsible for completing the required coursework on time. Use this table to determine the due dates for your coursework if you are enrolled in three or more Precalculus Courses. Follow the column that represents how many Precalculus courses you are registered for this semester.

	5 Courses	4 Courses	3 Courses
1 st Course			
1 st Review Exam*	Tues., Jan. 23	Thurs., Jan. 25	Fri., Jan. 26
2 nd Review Exam	Fri., Jan. 26	Wed., Jan. 31	Fri., Feb. 2
3 rd Review Exam	Wed., Jan. 31	Mon., Feb. 5	Thurs., Feb. 8
4 th Review Exam	Mon., Feb. 5	Thurs., Feb. 8	Wed., Feb. 14
Final Exam**	Wed., Feb. 7	Tues., Feb. 13	Mon., Feb. 19
2 nd Course			
1 st Review Exam	Mon., Feb. 12	Mon., Feb. 19	Tues., Feb. 27
2 nd Review Exam	Thurs., Feb. 15	Fri., Feb. 23	Tues., Mar. 5
3 rd Review Exam	Tues., Feb. 20	Wed., Feb. 28	Mon., Mar. 18
4 th Review Exam	Fri., Feb. 23	Mon., Mar. 4	Fri., Mar. 22
Final Exam	Tues., Feb. 27	Thurs., Mar. 7	Wed., Mar. 27
3 rd Course			
1 st Review Exam	Fri., Mar. 1	Wed., Mar. 20	Thurs., Apr. 4
2 nd Review Exam	Wed., Mar. 6	Tues., Mar. 26	Thurs., Apr. 11
3 rd Review Exam	Mon., Mar. 18	Fri., Mar. 29	Thurs., Apr. 18
4 th Review Exam	Thurs., Mar. 21	Wed., Apr. 3	Thurs., Apr. 25
Final Exam	Mon., Mar. 25	Mon., Apr. 8	Tues., Apr. 30
4 th Course			
1 st Review Exam	Thurs., Mar. 28	Fri., Apr. 12	
2 nd Review Exam	Tues., Apr. 2	Thurs., Apr. 18	
3 rd Review Exam	Fri., Apr. 5	Tues., Apr. 23	
4 th Review Exam	Wed., Apr. 10	Fri., Apr. 26	
Final Exam	Fri., Apr. 12	Wed., May 1	
5 th Course			
1 st Review Exam	Wed., Apr. 17		
2 nd Review Exam	Mon., Apr. 22		
3 rd Review Exam	Thurs., Apr. 25		
4 th Review Exam	Tues., Apr. 30		
Final Exam	Thurs., May 2		

* Review Exam

- If passed by midnight (MST) on the due date listed, you will receive 3 points toward your final grade.
- If you do not pass a Review Exam by its due date, you will receive zero points for the Review Exam but will still need to pass it to move on with the course material.

Unit Exam

- There are no due dates for the Unit Exams. However, you must pass the proctored Unit Exam **before** you are able to take the Review Exam for the next unit.
- You may retest on Unit Exams to improve your score until the Final Exam due date for that course. Page | 20

** Final Exam

- Must be passed by midnight (MST) on the due date listed.
- If you are eligible to take the Final Exam by the due date listed and have not yet passed it, you will be allowed one attempt on the Final Exam the next business day.
- If the Final Exam is passed, you may retest on any exam (Unit or Final) for that course until 4:00pm on May 3, 2024. You may need to retest to earn enough points to complete the course and/or you may wish to retest to improve your grade.
- If you do not pass the Final Exam, you may reduce the number of courses in which you are enrolled to get a new set of due dates and potentially recover lost points. Refer to Appendix IV for Precalculus Registration Deadline Dates. Speak with a Precalculus Director if you have any questions or concerns.

Note: Dates are subject to change, log into the Precalculus Program website and refer to the "My Exam Deadlines" link.

Appendix IV: Registration Deadline Dates, Spring 2024

001 Sections

Use the computer registration system (RAMweb) to Add, Drop or Withdraw from section 001 of MATH 117, MATH 118, MATH 124, MATH 125, and MATH 126.

Course Add deadline: Course Drop deadline:

Course Withdrawal deadline:

801/809 Sections

Information about dropping or withdrawing from section 801 of MATH 117, MATH 118, MATH 124, MATH 125, and MATH 126 can be found at: <u>http://www.online.colostate.edu/faqs/policies/drop-policy.dot</u>

Course Add deadline:

Course Drop deadline:

Course Withdrawal deadline:

Sunday, January 21st

Wednesday, January 31st

Friday, April 12th

Wednesday, January 31st

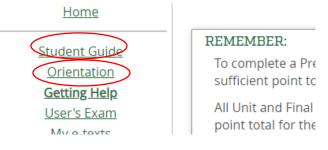
Sunday, January 21st

Monday, April 15th

- 1. Math is not a spectator sport: You cannot learn math by just watching lectures or looking at examples. To learn you need to be actively engaged in the learning process. Practice lots of problems. You can complete each required assignment and exam an unlimited number of times. Keep trying practice problems and doing review exams until you are confident enough with the material to pass without using any references.
- 2. **Study for an understanding**: Often students look for patterns or shortcuts to solving problems, but this frequently ends up creating issues for them later. If you study the course materials to have a good understand of the mathematical concepts, you will be getting a good foundation for later math topics.
- 3. **Mistakes happen**: We all make mistakes, but it is important to review them and understand where your problem-solving skills let you down. Understanding how you approached the problem and where the mistake was made will help you avoid the same mistake in the future and gain a better understand of mathematical concepts.
- 4. **Take good notes**: Create a master list of symbols/terminology/vocabulary to use as a reference as you study. As you practice problems you may want to use different colors as you work. Pick one color to write the steps of the problems that you understand. Write the steps that you don't understand in a different color. This will help you see what you need to review.
- 5. **Frequent study sessions**: Plan multiple study sessions each week. Studies show that revisiting topics frequently will help you remember. We recommend that you spend 3 hours each week working on your math per credit. So, if you are taking 2 precalculus courses this semester, schedule 2 hours a day for 3 days each week, or 1.5 hours a day over four days each week, etc.

Appendix VI: Precalculus Program Guide

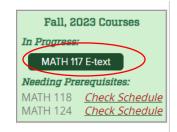
- 1. Go to <u>https://precalc.math.colostate.edu</u> and log in with your NetID.
- 2. Watch the Online Orientation and read the Student Guide (links are on the left side of the screen).



3. Pass the User's Exam which covers the information contained in the Student Guide.

Student GuideREMEMBER:OrientationTo complete a Precalculus sufficient point total accordGetting HelpAll Unit and Final exams m point total for the course.	Home	
	<u>Orientation</u> <u>Getting Help</u> <u>User's Exam</u>	To complete a Precalculus sufficient point total accorr All Unit and Final exams m

4. On the left side of the screen, click the course E-text link to access the course.



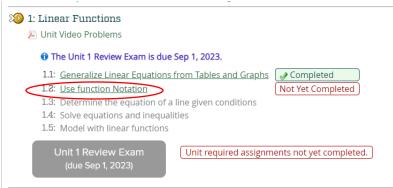
5. Pass the Skills Review Exam. After your first attempt, a link to review materials will appear.



You can access your previous attempts by clicking on the appropriate link.

🕸 Skills Review				
Skills Review materials				
Skills Review Exam				
Review your Skills Review Exam submitted Aug 29, 2023 at 04:40 A				

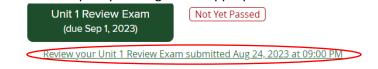
6. Click on the link to the objective to open the study materials and the Required Assignment.



- 7. Complete all five of Unit 1 Required Assignments.
- 8. Pass the Unit 1 Review Exam by the due date.

20 1: Linear Functions	
💫 Unit Video Problems	
The Unit 1 Review Exam is due Sep 1, 2023.	
1.1: Generalize Linear Equations from Tables and Graphs	Completed
1.2: Use function Notation	Completed
1.3: Determine the equation of a line given conditions	Completed
1.4: Solve equations and inequalities	Completed
1.5: Model with linear functions	Completed
Unit 1 Review Exam (due Sep 1, 2023)	

You can access your previous attempts by clicking on the appropriate link.



9. Pass the proctored Unit 1 Exam. Follow the instructions in the yellow box below the link to the Review Exam.

For CSU on campus students (sections 001, 002, 003, 004, 005, 006, and 007):

You must pass the Unit 1 Exam before you can move on to the Unit 2 Review Exam.

To take the proctored Unit 1 Exam:

- Come to the Precalculus Center testing area (Weber 138).
- Store any personal items in lockers provided (locks are available to lend), and take only your RamCard and a pencil or pen into the testing area. No other resources are allowed. Scratch paper will be provided.
- Request the MATH 117 Unit 1 Exam.
- An on-screen TI-84 calculator will be provided on the testing computer.
- When the exam is completed, return to this site to check your status.

For CSU Online students (sections 801 and 809):

To take the proctored **Unit 1 Exam**:

- Log in to the <u>Mathematics Proctoring System</u>, and allow your browser to use your webcam and share your screen (please share your ENTIRE SCREEN).
- Select Choose Exam, then MATH 117 Unit 1 Exam.
- Follow the instructions to complete your exam.
- You can use scratch paper and a personal calculator or the Desmos calculator; a link to Desmos should appear above the exam.

Take the MATH 117 - Unit 1 Exam

- 10. Repeat steps 6 9 for Units 2, 3, and 4.
- 11. Take the Final Exam as many times as needed to earn a passing score before the end of the day on the due date. You can prepare for the final exam by practicing the Unit Review Exams. If you have not passed the Final Exam by the due date, and you have passed the Unit 4 Exam, you have one more attempt to pass the Final Exam the next day business after your due date.
- 12. Retest, if necessary, on any Unit and/or Final Exam to earn points for the course. You must have at least 54 points in the course to pass. Your current status can be found at the top of the course page.

	Review Exam	Proctored Exam	Points
Unit 1:	Passed (on time)	Not taken	3
Unit 2:	Not taken - due Sep 12	Not taken	
Unit 3:	Not taken - due Sep 20	Not taken	
Unit 4:	Not taken - due Sep 28	Not taken	
Final Exam:		Not taken - due Oct 5	
	·	Total Points Earned:	3

If you do not pass your Final Exam: you will need to adjust your registration to continue working on your math courses. Ask in the Precalculus Office, Weber 137, or email precalc_math@colostate.edu for your options.

You may retest on any course in which you have passed the Final Exam until 4pm the last day of classes for the semester.

13. Repeat steps 4 – 12 for all remaining Precalculus Courses.

Important links (also found on your Precalculus Course page):

- a. <u>Getting Help</u> (for remote and in-person tutoring help)
- b. <u>My Exam Deadlines</u> (to see all your due dates)

Please note: If you did not pass a Review Exam by its due date, **you have earned** <u>zero</u> of three points possible. You can still pass the course if you miss Review Exam due dates. But, you will need to gain back some of the missing points by scoring higher on the Unit and Final Exams.

Number of Review Exams passed by	Minimum number of points [*] , out of 60 possible, you must earn on Unit and Final Exams to receive the following grade.		
the due date.	А	В	С
4	53	50	48
3	56	53	48
2	59	56	48
1	Not possible	59	51
0	Not Possible	Not Possible	54

* If you pass each Unit and the Final Exam you will have earned at least 48 points.

