

Syllabus for Math 50A ~ Differential Calculus

Course Information

Semester & Year: Fall 2023

Course ID & Section #: Online Math 50A ~ Section Number V5476

Instructor's name: Amber Buntin

Day/Time of *required* meetings: None
Number of proctored exams: None
Course units: 4 Units

Instructor Contact Information

Office location or *Online: Zoom: https://redwoods-edu.zoom.us/j/99397876681

Office hours: Message me via Canvas or Pronto to meet up!

Phone number: 707-476-4207

Email address: Amber-Buntin@redwoods.edu

Required Textbook

Textbook title: Calculus, Volume 1 – OpenStax

URL: https://openstax.org/details/calculus-volume-1

Author: Gilbert Strang & Edwin Herman

ISBN: 193816802X, Digital ISBN: 1947172131

Other Requirements

Reliable access to the internet and a computer/laptop is essential to your success in this course since all course material will be delivered and all assignments will be submitted online. Graphing calculator required; TI 83/84 graphing calculator (or comparable app) recommended. See additional required course materials in syllabus below.

Catalog Description

A study of limits, continuity, and derivatives of algebraic, transcendental, and trigonometric functions. Applications of the derivative include optimization, related rates, examples from the natural and social sciences, and graphing of functions. The course introduces the integral and the connection between the integral and derivative. Note: A graphing calculator is required. CSU and UC Transferable.

Course Student Learning Outcomes (from course outline of record)

- 1. Evaluate limits and use the results to interpret information about functions.
- 2. Use differentiation to compute derivatives and to solve relevant applications.
- 3. Create and interpret graphs of functions using methods of calculus.
- 4. Apply the Fundamental Theorem of Calculus and interpret results.

Evaluation & Grading Policy

Please see weighted grade policy in syllabus below.

Prerequisites/Co-requisites/Recommended Preparation

Student must pass MATH-30 – College Algebra AND MATH-25 – Trigonometry with a C or better.

Canvas Information

Our course canvas page will be updated regularly and will contain a variety of items such as: course announcements, class documents, review resources and much more. Be sure to turn on your notifications if you'd like to be notified about things like new announcements, changes. If you find you are getting too many (or too few) announcements, remember this is an individual setting that you must modify in Canvas. I can help to adjust your settings...just ask! You will be expected to check canvas daily and be aware of announcements made.

- You will need to make sure that your MyCR Login is set up in order to access Canvas or your Outlook Email. If you haven't set up your account, please see the MyCR Account Setup page.
- For help logging in to Canvas, visit My CR Portal.
- For help with Canvas once you're logged in, click on the Help icon on the left menu.
- For tech help, email its@redwoods.edu or call 707-476-4160
- Canvas online orientation workshop: Canvas Student Orientation Course (instructure.com)

Student Feedback Policy

- The instructor will maintain frequent contact with the class and will respond to questions within 48 hours, unless announced absence to due illness, etc.
- Lecture videos, notes, and practice problems will be provided for learning course material. These materials will be created by me and/or shared from respectable you tube channels.
- Students will receive feedback on online homework instantly.
- Homework, discussion forums, and quizzes are typically graded within 2 weeks of the due date.
- Exams will typically be graded within 3 weeks of the due date.

Student Support Services

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

Student support services at CR: https://www.redwoods.edu/services

Logging into student accounts (Email, Canvas, Webadvisor, etc):

https://webapps.redwoods.edu/tutorial/

Online Course Support Resources: https://www.redwoods.edu/online

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact Admissions & Records to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. It does not change your legal name in our records. See the Student Information Update form.

Community College Student Health and Wellness

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges Health & Wellness website. Wellness Central is a free online health and wellness resource that is available 24/7 in your space at your pace. Students seeking to request a counseling appointment for academic advising or general counseling can email counseling@redwoods.edu.

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Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, bipolar disorder, and ADHD
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- A learning disability (e.g., dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling, and advising, alternate formats of materials (e.g., audio books, E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact <u>Disability Services and Programs for Students (DSPS)</u>. If you are unsure whether you qualify, please contact DSPS for a consultation: dsps@redwoods.edu.

• Eureka: 707-476-4280, Student Services Building, 1st floor

Del Norte: 707-465-2324, Main Building, near the library

• Klamath-Trinity: 707-476-4280

Academic Dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Emergency Procedures and Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary to receive emergency alerts. Check to make sure your contact information is up to date by logging into WebAdvisor https://webadvisor.redwoods.edu and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or <u>security@redwoods.edu</u> if you have any questions. For more information see the <u>Redwoods Public Safety Page</u>.

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Admissions deadlines & enrollment policies

Fall 2023 Dates

Admissions August 18th: Last day to register for classes (day before the first class meeting)

August 19th: Classes begin

August 25th: Last day to add a class

September 1st: Last day to drop without a "W" and receive a refund

September 4th: Labor Day Holiday (District-wide closure)

September 5th: Census Date (20% of class) October 26th: Last day to petition to graduate

October 27th: Last day for student-initiated withdrawal (62.5% of class) October 27th: Last day for faculty-initiated withdrawal (62.5% of class)

December 9th-15th: Final Examinations

December 15th: Last day to file for P/NP option

December 15th: Semester Ends December 22nd: Grades due January 5th: Grades available

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Online Math 50A ~ Differential Calculus

Online course located in **Canvas**

Instructor Contact Info

Amber Buntin, Professor of Mathematics

Email: <u>amber-buntin@redwoods.edu</u> Phone: 707-476-4207

Canvas/Pronto message is the preferred way to contact me!

Office Hours: By appointment! Canvas/Pronto message me to meet up!

Office Hours Zoom Link: https://redwoods-edu.zoom.us/j/99397876681

Meeting ID: 993 9787 6681

Course Delivery

This course is delivered and taught 100% online; there are *NO required class meetings*. Students are required to watch video lectures, participate in online discussions, and submit assignments in <u>Canvas</u>. Students are encouraged to message instructor in Pronto or Canvas messenger as questions arise throughout the semester! Assignments and course schedule will be posted in our canvas shell.

Virtual Presence and Participation

Virtual presence and participation are essential to the learning process as material builds daily in the canvas shell. Communication among you, your classmates and myself will occur almost daily in discussion forums and/or virtual zoom meetings. An important aspect of this course is the incorporation of active learning, including taking notes from video lectures, completing worksheets, activities, and quizzes and working with others. We will incorporate all of these in our online classroom. It is important that you communicate, participate, ask questions (lots of 'em), dialog with classmates in discussions etc!

It is also essential to our class that both the students and teacher behave in the virtual world (Canvas) in a manner that will provide a comfortable learning atmosphere. You are expected to be courteous to each other and to the instructor. You should not hesitate to ask questions nor feel embarrassed to ask for help!

Confirm Presence in Online Classroom

Log in to Canvas and post to the "Introduce yourself!" discussion forum no later than 11:59pm on Tuesday, August 22nd, 2023, to confirm your presence in the online classroom. Doing so will confirm your enrollment in the course and avoid being dropped as a "no show." A student from the waiting list may then be added in your place.

Weighted Grades

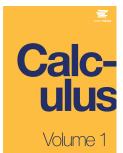
Online Homework/Activities	.15%	93~100%	A
Written Homework	15%	90~92%	A-
Discussions/Check-ins	. 5%	88~89%	B+
Quizzes	10%	83~87%	B
Exams	30%	80~82%	B-
Final Exam	25%	78~79%	C+
		70~77%	C
		0~69%	D~F

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Required Materials

Textbooks:

Good news: the textbook for this class is available for free online, in web view and PDF format! You can also purchase a print version, if you prefer, via the CR bookstore or from OpenStax on Amazon.com.



Calculus Volume 1, OpenStax

Print ISBN: 193816802X Digital ISBN: 1947172131

FREE e-book (access online): www.openstax.org/details/calculus-volume-1

Textbook as a downloadable PDF: Calculus Volume 1 ~ OpenStax.pdf

Printed textbook on Amazon: Link to Paperback Version

Other Materials:

Reliable, daily access to internet, a computer/laptop

- Smart phone/tablet with a camera capable of taking clear photos (or a scanner)
- Lined paper and graph paper
- Pencil, erasers, and straight edge
- Binder/composition/spiral notebook or note-taking device (used as a reference book)
- **DESMOS** Graphing APP
- Graphing calculator is required (TI-83+ or TI-84 recommended) and available to check out for FREE for the semester through the library or you can download a comparable app to your device/computer.
 - iOS/Apple Devices ~ Search for <u>Calculate84</u> APP
 Android Devices ~ Search for <u>Calc 84</u> APP

Student Commitment

Your commitment will require at least as much time as you dedicate to a traditional class. College of the Redwoods instructors are required to provide at least 54 hours of "work" during the semester for each unit of credit. Since this is a 4-unit course, you should expect to spend at least 216 hours on this course this semester. This works out to about 13-14 hours of effort on average each week for the semester. Additionally, while I try to keep the workload evenly distributed during the semester, there may be some weeks which require more time than others depending on which assignments or activities are assigned that particular week.

Types of effort required for success:

- participate in discussions/cooperative learning activities/group work
- carefully read online lectures and textbook chapters and watch video lessons
- complete online and written homework and discussions
- complete weekly quizzes and regular exams.

Conscientiousness, attention to details, and skills in reading and writing are critical for success.

Computer Skills:

Online courses require adequate computer skills. You must be able to:

- navigate the course Learning Management System (Canvas)
- receive and respond to your CR email
- download and upload files to the Canvas
- convert written work to a PDF file
- use an online homework system MyOpenMath (MOM) in Canvas

It is your responsibility to meet the technological demands of the course.

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Technology Requirements

You should have high-speed internet (such as broadband) service from cable, DSL, or satellite providers as there are videos that require this speed. You need to have reliable access to the internet for the duration of the course. Anticipate problems with your computer and internet access (including power outages) by not waiting until the last minute to submit assignments. It is your responsibility to meet the class deadlines. Portable Devices vs. Computers:

Although you can use up-to-date portable devices (such as Android or iOS phones & tablets) for some things, you should plan on doing the majority of your work (especially exams and assignments) from a reasonably up-to-date notebook or desktop computer (Mac or PC). *Do NOT plan to participate in this class solely from a portable device*. If you do decide to use your portable device for *some* of your class work, use the free Canvas app (called "Canvas by Instructure - STUDENT") available in APP Store (for iOS) and the Google Play Store (for Android). You may also connect to Canvas using a web browser on a portable device, but it can be a bit finicky. Your experience with Canvas will be a lot better using the app.

Homework and Activities

Online and written homework and activities will be assigned throughout the semester. Homework will be assigned and due around 3 days per week in order to get through all of the necessary material. You are encouraged to work collaboratively on your homework but be sure that you do NOT COPY other students' work. We will have access to an APP called Pronto (download from APP store and login with CR email) where you can meet up virtually with others from class. At the end of the semester, your 3 lowest homework scores will be dropped from your grade.

Online Homework:

Online homework will be assigned and completed in a FREE online homework site called MyOpenMath (MOM). The online assignments will provide for the following incentives:

- Integrated in Canvas for instant feedback/grading (single sign-on). NO CLASS CODED NEEDED!
- Ability to submit answers multiple times to improve score.
- Infinite set of practice problems/solutions for studying after due date.
- Late online work policy: Late passes for online homework can be used up until the Exam that contains that lesson and will extend the assignment due date for an additional 7 days (but not past exam date).

Written Homework:

Written homework will be due with nearly every MOM assignment.

Grading Rubric for HW: Written assignments will be graded mainly on neatness, proper notation, and completeness and deductions will occur if I notice multiple incorrect answers or errors or incomplete assignments. Please see "Written Homework Guidelines" section for further details about expectations.

- For *most* online MOM assignments, I will select several MOM problems for you to write up solutions for and scan and post by the due date as a PDF file.
- Written work will typically include material covered in recent homework/notes/activities.
- In addition to written solutions to online HW, problems may be assigned from the textbook. Check answers to ODD numbered problems in the back of the textbook and to help with even-numbered problems.
- Late written work policy: Written work is due the same day as the online HW. There is a grace period to submit written assignments up to 5 days late with NO PENALTY. After this point, no late written work will be accepted except for in the event of an emergency.

Activities:

• We will have activities in this class. Activities will consist of worksheets, activities, presentations and DESMOS activities. Some will be group activities, and some will be individual activities.

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Quizzes

There will quizzes nearly every week delivered in our canvas shell that will typically due Sunday by 11:59pm. Quizzes will contain both an online and written portion (scan and submit written work). You MAY NOT work with other students from class nor get help at the math lab or from a tutor or anyone for that matter. All work shown on quizzes should be your own and should follow the HW guidelines. If I suspect students have worked together on a quiz, all parties will receive a score of zero and may be reported to the dean of students for further consequence.

Exams and the Final

There will be 3-4 class exams (30% of grade) throughout the semester and a required, comprehensive final examination (25% of grade). I will notify the class at least one week in advance as to the date of each exam. Before each exam, you will receive practice problems and study advice.

If I suspect students have worked together on an exam or used an online APP to help them solve problems on the exam, all involved parties will receive a score of zero and may be reported to the dean of students for further consequence.

All exams need to be submitted by the due date/time as announced in our class schedule and Canvas calendar. No late exams will be accepted. It is your responsibility to ensure (and confirm) all exam problems have been completed and that the scan that is submitted includes ALL pages.

Be sure to make all travel plans accordingly as there will be <u>no make-ups</u> for missed exams except in extreme or emergency cases (must provide documentation). Every attempt will be made so Exams are graded within 3 weeks of all members of class completing the exam.

Exams:

- 3~Hour time limit
- Online and written portion
- Open notes/book
- Not proctored

Final Exam:

- 4~Hour time limit
- Online and written portion
- Open notes/book
- Not proctored

The Final Exam will be due in Canvas on Thursday Dec 14th, 2023 by 11:59pm

Testing Accommodations

If you are already approved for accommodations through Disabled Services & Programs for Students (DSPS) then please submit your paperwork to me **during the first or second week of class** to and let me know of any accommodations you are granted. Many times, your DSPS counselor will be able to email this document directly to me!

Faculty Withdrawal of Students

It is the policy of the College of the Redwoods Department of Mathematics to exercise a "Faculty Withdrawal" for any student who has missed more than 15% of the class meeting time (~8 days) due to the severely diminished likelihood of a successful course outcome. Missing 1 or more assignments/classes in the first two weeks of school may result in withdrawal as well. For an online course, I base this off of your participation in the course. If I notice you have stopped engaging in our course (no discussion posts, and/or no assignments being worked on), I will ask if you intend to remain enrolled in the course and *may* drop you from the course if I do not hear back. It is important to note that, if it is your intention to withdraw from the course, you are responsible to ensure the proper paperwork has been filed – that is, you should NOT assume the teacher will file the "Withdrawal" automatically.

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<u>Tutoring/Support Options – Improve Course Success!</u>

- FREE ASC tutoring! Call 707-476-4154. Check out their webpage for more details: https://redwoods.libguides.com/Tutoring
- **NetTutor** is available in our Canvas shell on the menu on the left once you enter our course.
- LIGHT Center Tutoring. Please contact the LIGHT center if you are interested in their tutoring services. There is a GUID course you must enroll in to receive services. Phone: 707-476-4290 Webpage: https://www.redwoods.edu/dsps/Light-Center
- **Private tutoring** is always an option but is of course more costly. If you are interested in hiring a private tutor, let me know and I will ask around to see if I can find anyone!
- Tech Support for Students: The student tech help desk is located at the Eureka campus inside the CR library, students may drop in during open hours for in person tech help.

 Webpage: https://www.redwoods.edu/sts
- Canvas Support for Students: Get help with all things Canvas! https://support.canvaslms.com/s/?c role=student&c accountId=001A000000KMmj5IAD
- Mathjam Math Review Courses:

These late-start, short term, online review classes can help to review topics in Prealgebra through Intermediate Algebra. Search for the following courses in WebAdvisor to register.

- Online Course Dates: 8/19/2023 ~ 11/19/2023
 - MATH 301 Prealgebra Review 1 Unit
 - MATH 302 Elementary Algebra Review 1 Unit
 - MATH 303 Intermediate Algebra Review 1 Unit

***If you'd like to review, but DO NOT want the unit/work obligation, then just look in our course Canvas shell under the module titled "Optional Review Material."

Final Words

A few words about my expectations for you and myself in this course: My responsibilities include providing course content, assigning carefully chosen homework problems that are relevant to our course and carefully preparing quiz and exam questions that accurately measure your progress in the course. Additionally, I am responsible to be available to you for consultation in office hours (by appointment...just email/message me ©).

Likewise, I believe that you are ultimately responsible for your college education, and I expect you to participate regularly, ask questions when needed and do your best to devote time to learning the course material. This involves keeping up with homework assignments, seeking additional help, either from me or from the many resources available to you before it is too late.

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Guidelines for Written Homework

Please follow these guidelines when completing homework assignments on paper or digitally. It makes my grading experience much more pleasant ©

- 1. Complete all written assignments on a **separate sheet of paper**. You **may use both sides** of the paper. Do NOT complete assignments on the pages of your textbook.
- 2. **Label** your homework with your name, course number, and section number in the upper right-hand corner (see example below).
- 3. Copy down original problem and directions (summarize word problems)!
- 4. Write your problems in order **DOWN** the page. Please **skip a line** between problems.
- 5. Circle, box, or highlight your answers to each exercise so I can find your answer quickly.
- 6. Please use **pencil** when writing your homework, and please write legibly and neatly. Presentation is a component of your homework score. Erasable are acceptable too!
- 7. Be sure to **show your work** when solving a problem. A problem with just the answer and no work shown will receive NO CREDIT.
- 8. Cut or tear off any frilly edges on paper torn from a notebook.
- 9. When creating a graph, you **MUST USE GRAPH PAPER AND A RULER**, or you will get a ZERO on the assignment.

/

Ima Student Math 50A Section 1.2

HW 1.2: 4, 11, 20, 41

4. Solve
$$-26x + 84 = 48$$

$$-26x + 84 = 48$$

$$-26x = -36$$

$$x = \frac{36}{26}$$

20. Solve
$$-8 - 8(x - 3) = 5(x + 9) + 7$$

$$-8 - 8(x - 3) = 5(x + 9) + 7$$

$$-8 - 8x + 24 = 5x + 45 + 7$$

$$-8x + 16 = 5x + 52$$

$$-13x = 36$$

$$x = -\frac{36}{13}$$

11. Solve 19x + 35 = 10

$$19x + 35 = 10$$

$$19x = -25$$

$$x = -\frac{25}{19}$$

41. Solve
$$Ax + By = C$$
 for y

$$Ax + By = C$$

$$By = C - Ax$$

$$y = \frac{C - Ax}{B}$$

Announcements will be made in Canvas.

Students are expected to check email, Canvas, and/or with fellow classmates concerning missed work!

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