| Syllabus for Math 50A – Differential Calculus – Eureka Campus |                           |  |  |  |
|---|---------------------------|--|--|--|
| Semester & Year   | Spring 2019               |  |  |  |
| Course ID and Section #                                       | Math 50A ~ Section E6263  |  |  |  |
| Instructor's Name   | Amber Buntin              |  |  |  |
| Day/Time  | Mon/Wed/Fri 11:40-12:55pm |  |  |  |
| Location  | SC 202                    |  |  |  |
| <b>Number of Credits/Units</b>                                | 4 units                   |  |  |  |
| Contact Information   | Office location           | SC 216K  |  |  |
|   | Office hours              | Mon-Thurs 10-11am, & by appointment (email me ☺)         |  |  |
|   | Phone number              | 707-476-4207   |  |  |
|   | Email address             | Amber-Buntin@redwoods.edu                                |  |  |
|   |                           | Include "Math 50A" in the email subject line             |  |  |
| Textbook Information  | Title & Edition           | Calculus, Early Transcendentals, 5 <sup>th</sup> Edition |  |  |
|   | Author                    | James Stewart  |  |  |
|   | ISBN                      | 0534393217 (10), 9780534393212 (13)                      |  |  |

### **Course Description**

As stated in CR's catalog: 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. Letter Grade Only. CSU and UC Transferable. *Prerequisites: Math 25 and Math 30 (or equivalent)*.

#### **Student Learning Outcomes**

- 1. Evaluate the limit of a function at a real number and determine if a function is continuous at a real number. Use the limit to find the derivative of a function.
- 2. Use the derivative to find the equation of a tangent line to a function;
- 3. Use the differentiation formulas to compute derivatives and use differentiation to solve applications such as related rate problems and optimization problems.
- 4. Analyze the rate of change of an implicit function using implicit differentiation.
- 5. Graph functions using methods of calculus.
- 6. Evaluate a definite integral as a limit.

#### **Special Accommodations**

College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact <a href="Disabled Students Programs and Services">Disabled Students Programs and Services</a>. Students may make requests for alternative media by contacting DSPS at 707-476-4280.

#### **Academic Support**

Academic support is available at <u>Counseling and Advising</u> and includes academic advising and educational planning, <u>Academic Support Center</u> for tutoring and proctored tests, and <u>Extended</u> <u>Opportunity Programs & Services</u>, for eligible students, with advising, assistance, tutoring, and more.

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#### **Academic Honesty**

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 at: <a href="http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services">http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services</a>, and scroll to AP 5500. 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.

#### **Disruptive Classroom Behavior**

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process a disruptive student may be temporarily removed from class. In addition, he or she 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 at: <a href="http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services">http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services</a> and scroll to AP 5500.

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 for the Eureka campus:**

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). The Eureka **campus emergency map** is available at: (<a href="http://www.redwoods.edu/aboutcr/Eureka-Map">http://www.redwoods.edu/aboutcr/Eureka-Map</a>; choose the evacuation map option). For more

information on Public Safety, go to <a href="http://www.redwoods.edu/publicsafety">http://www.redwoods.edu/publicsafety</a>. In an emergency that requires an evacuation of the building:

- Be aware of all marked exits from your area and building.
- Once outside, move to the nearest evacuation point outside your building:
- Keep streets and walkways clear for emergency vehicles and personnel.
- Do not leave campus, unless it has been deemed safe by the Incident Commander or campus authorities. (CR's lower parking lot and Tompkins Hill Rd are within the Tsunami Zone.)

RAVE – College of the Redwoods has implemented an emergency alert system. In the event of an emergency on campus you can receive an alert through your personal email and/or phones at your home, office, and cell. Registration is necessary in order to receive emergency alerts. Please go to <a href="https://www.GetRave.com/login/Redwoods">https://www.GetRave.com/login/Redwoods</a> and use the "Register" button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email. Please use your CR email address as your primary Registration Email. Your CR email address ends with "redwoods.edu." Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions.

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

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#### Math 50A – Differential Calculus

Mon/Wed/Fri - 11:40am~12:55pm - SC 202 (Course number 046084)

### **Instructor Contact Info**

Amber Buntin, Assistant Professor, Department of Mathematics

Email: amber-buntin@redwoods.edu Canvas message is the preferred way to contact me!

Phone: 707-476-4207

Office hours (SC 216K): Mon-Thurs 10-11am, and available by appointment!

Math Lab Open Hours: M/W 9am-6pm, T/Th 10am-6pm, Fri 10am-3pm

\*\*\*Notes: The Math Lab is located in the back of Library (there are little red flags on the tables). You must be signed up to utilize the math lab (there is a FREE option Math 252)\*\*\*

### Classroom Environment and Attendance

It is essential to our class that both the students and teacher behave in a manner that will provide a comfortable learning atmosphere. Be respectful to one another. You should not hesitate to ask questions nor feel embarrassed to ask for help.

Class time is valuable, and while sometimes we will work on in-class activities, I ask that you DO NOT complete homework during lecture to avoid falling behind on the current material.

You are expected to arrive on time and to leave upon dismissal. Arriving late or leaving before class is dismissed is disruptive and disrespectful to your classmates as well as your teacher. Please be prepared with your headphones put away and cell phones SILENCED. If you have a job where you must have a radio/walkie (such as an emergency responder), or your phone on, please let me know right away!

If you must miss a day, please check with a classmate and/or Canvas to see what you missed. Also, hand assignments in early so they are not considered late!

## <u>Grades</u>

|                     |     | 93~100%A |
|---------------------|-----|----------|
| Homework/Activities | 20% | 90~92%A~ |
| Quizzes             | 10% | 88~89%B+ |
| Participation       |     | 83~87%B  |
| Exams               |     | 80~82%B~ |
| Final Exam          | 25% | 78~79%C+ |
|                     |     | 70~77%C  |
|                     |     | 0~69%D~F |

\*\*\* Final grade is at the professional discretion of the instructor \*\*\*

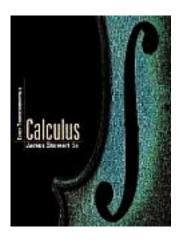
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# **Required Materials**

Textbook: Calculus, Early Transcendentals

Author: Stewart, published by Cengage Learning

5th Edition ISBN #0-534-39321-7







- There are textbooks available for check out for FREE for the semester at the library.
- Order your **textbook online for very cheap** on amazon etc. If you are going to order online, I suggest you do so ASAP.

## Required Supplies:

- Binder/folder for returned work.
- Lined paper and graph paper.
- Pencil, erasers, and straight edge.
- Composition notebook OR binder (used specifically as a reference book)
- A graphing calculator is **required** (TI-83+ or TI-84 recommended) and available to rent for \$15 per semester (see Emily Chang in the back of the Library in the Math Lab).
- Access to a computer with internet and printing capabilities is also a requirement as there will be assignments submitted online. Check out CIS 210!
- Access to an online graphing calc. One example is the free DESMOS Graphing APP (not for use on exams): <a href="https://www.desmos.com/">https://www.desmos.com/</a>

### <u>Canvas</u>

Our course canvas page will be updated regularly and will contain a variety of items such as: course announcements, class documents, assignments, 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 to assignment due dates etc. 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 regularly and be aware of announcements made.

Link to Canvas: <a href="https://redwoods.instructure.com/">https://redwoods.instructure.com/</a>

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### Homework and Activities

Activities, online homework and written homework will be assigned throughout the semester. Homework will be assigned and due nearly every class period. You are encouraged to work collaboratively on your homework but be sure to NOT COPY other students' work. We will have about 5~10 minutes reserved for homework questions each class. At the end of the semester, your 2 lowest homework scores will be dropped from your grade. Late work policy: 5 Late Passes will be allowed for online assingments only.

### Online Homework:

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

- Integrated in Canvas for instant feedback/grading.
- Ability to submit assignments multiple times to improve score.
- Infinite set of practice problems/solutions for studying.
- Note: Written work may be assigned for sections/topics that are not well suited for online work such as graphing.
- I will set up individual/small group tutorials if needed to make sure students have ample support for MyOpenMath.

### Written Homework:

Written homework will be due once a week. Written assignments will be graded mainly on neatness, proper notation, and completeness and deductions will occur if I notice mutiple incorrect answers or errors.

Please see "Written Homework Guidelines" section for further details about expectations.

- Written work will typically include material covered in recent homework/notes/activities.
- Students are encouraged to check answers to ODD numbered problems in the back of the exercises section and to help with even-numbered problems when problems from the textbook are assigned.
- Late passes CANNOT be used on written work.

## **Exam corrections:**

- Assigned after each exam is returned (if time allows)
- Graded as a homework assignment and do not improve actual exam score.

## Activites:

• We will have activities in and outside of class time. Activities that are completed in class cannot be made up if missed. For many activities you will be working in pairs or groups and therefore it is important you come to class everyday!

Handing in work early and the Math dropbox

It is your responsibility to ensure that you get your work turned in on time; if you know you will be missing class, you should submit/turn in work before the due date, send it with a friend to class, or hand it in to the Mathematics dropbox in the hallway of the 2nd floor of the Science Building before class time on the due date. If you use this option, be sure to put MY NAME on it at the top and email me to let me know you dropped the homework.

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### Quizzes

There will be an in-class OR take-home quiz each week there is not an exam. In-class quizzes will be announced at least one class period in advance. For take-home quizzes, you may use your composition notebook, notes and textbook. You MAY NOT work with other students in class or get help at the math lab, the LIGHT center or from a tutor. All work shown on quizzes should be your own and should follow the HW guidelines. If I even suspect students work together on a quiz, both parties will receive a score of zero!

### Exams and the Final

There will be 2-3 in-class exams (40% 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 in-class exam. Before each exam, you will receive a study guide and/or practice problems. I will schedule an optional study session before each exam typically outside of class.

All exams need to be taken in class ON THE DAY OF THE EXAM unless you have made prior arrangements with me to take it early. 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). If you take exams in the LIGHT center, you need to make sure you make an appointment in advance so that you take the final exam at the designated time. Exams will be graded within 2 weeks of all members of class completing the exam.

\*\*\*Final Date: Monday May 13th, 10:45am~12:45pm\*\*\*

## Testing Accommodations

If you have a documented disability or believe you can benefit from any of the services offered by DSPS such as extended test taking time, tutoring services, quiet space for exams etc, please contact the DSPS office at 476-4280 (phone), 476-4418 (fax), TTY 476-4284 or view their webpage: <a href="http://www.redwoods.edu/dsps">http://www.redwoods.edu/dsps</a>

If you are already approved for accomodations through Disabled Services & Programs for Students (DSPS) then during the first or second week of class you will need to submit your paperwork to me and arrange to take exams in the testing center and make sure that you take Exams at the same time our class meets.

# 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 2 or more classes in the first two weeks of school may result in withdrawal as well.

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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## Tutoring Options – Improve Course Success!

# The Math Tutoring Lab:

The math lab is located in the ASC in back of the Library. Sign up in webadvisor for one of the courses below & show up first week of class to fill out paperwork. Course options:

- MATH 252 Open Mathematics Lab. This is a FREE, no credit option to get drop-in math tutoring in the math lab. If you do not need units or you want math help but cannot fulfill hour requirements for mathlab, then this is the option for you!
- MATH 52 Math Lab for Elementary Algebra. Register in webadvisor for this for-credit drop-in tutoring course held in the math lab. Available for .5 unit (22.5 hours  $\sim 1.5$  hrs a week req) or for 1 unit of credit (45 hours  $\sim 3$  hrs a week req).

## Other Tutoring Options:

- FREE ASC tutoring by appointment. Call 707-476-4106 or 707-476-4154.
- EOPS Tutors. You must be part of EOPS (Extended Opportunity Programs and Services) to receive this tutoring. Please contact your EOPS couselor to set up tutoring. If you are unsure if you are eligible for EOPS, call them at 707-476-4270 check out their webpage: <a href="https://www.redwoods.edu/eops">https://www.redwoods.edu/eops</a>
- 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: <a href="https://www.redwoods.edu/dsps/Light-Center">https://www.redwoods.edu/dsps/Light-Center</a>
- **OPTIMATH** practice assignments give immediate feedback and written out solutions: <a href="http://msenux2.redwoods.edu/cgi~bin/online/s18/OTportal.cgi">http://msenux2.redwoods.edu/cgi~bin/online/s18/OTportal.cgi</a>
- The **CR Math Jam** webpage is a great way to prepare for exams and contains lessons as well as OPTIMATH assignments: http://msenux2.redwoods.edu/mathjam/?s=public
- **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!

# Final words

A few words about my expectations for you and myself in this course: My responsibilities include coming to class prepared to teach you mathematics, giving clear lectures, assigning carefully chosen homework problems that are relevant to our course and carefully preparing exam questions that accurately measure your progress in the course. Additionally, I am responsible to be available to you outside of class for consultation in office hours (by appointment...just email me ©).

Likewise, I believe that you are ultimately responsible for your college education and I expect you to come to class motivated to learn the material. This involves keeping up with homework assignments, seeking additional help, either from me or from the many resources available to you here on campus, before it is too late.

\* Syllabus Subject to Change \*

Announcements will be made in class and often followed up in Canvas. When absent, students are expected to check email, Canvas, and/or with fellow classmates concerning missed work!

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# **Guidelines for Written Homework**

Please follow these guidelines when completing homework assignments. 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. **Staple** all homework in the upper left hand corner.
- 3. **Label** your homework with your name, course number, and section number in the upper right-hand corner (see example below).
- 4. Copy down original problem and directions (summarize word problems)!
- 5. Write your problems in order **DOWN** the page. Please **skip a line** between problems.
- 6. Circle, box, or highlight your answers to each exercise so I can find your answer quickly.
- 7. Please use **pencil** when writing your homework, and please write legibly and neatly. Presentation is a component of your homework score. NO PENS!
- 8. Be sure to **show your work** when solving a problem. A problem with just the answer and no work shown will receive NO CREDIT.
- 9. **Cut or tear off** any frilly edges on paper torn from a notebook.
- 10. When creating a graph, you **MUST USE GRAPH PAPER AND A RULER** or you will get a ZERO on the assignment.
- 11. If you are ever given two assignments due on the same day make sure complete them, and **staple them SEPARATELY**.

Staple in upper left corner.

Ima Student
Math 50A
HW #1 – 1.2/1.3

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  $y$ 

$$Ax + By = C$$

$$By = C - Ax$$

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

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