Differential Calculus – Eureka Campus, Del Norte Campus		
Semester & Year	Fall 2018	
Course ID and Section #	MATH50A	045187(Eureka), 045186(Del Norte)
Instructor's Name	Tony Luehrs	
Day/Time	MWF 11:40-12:55	
Location	LRC 105 (Eureka), Rm 28 (Del Norte)	
Number of Credits	4	
Contact Information	Office location	SC216E
	Office hours	Office: Thurs - 11:15-12:45, Fri – 10:30-11:30 Tutoring: Mon – 10:00-11:30, Wed – 10:00-11:30, Thurs – 10:00-11:00
	Phone number	707-476-4531
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Textbook Information	Title & Edition	Calculus: Early Transcendentals (5 th Edition)
	Author	Stewart
	ISBN	0-534-39321-7

Course 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.

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 <u>Disabled Students Programs and Services</u>. 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.

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: http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-

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<u>Services</u>, 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:

http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services 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: (http://www.redwoods.edu/aboutcr/Eureka-Map; choose the evacuation map option). For more information on Public Safety, go to http://www.redwoods.edu/publicsafety. 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 https://www.GetRave.com/login/Redwoods 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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Prerequisites: A passing grade of C in Math30 (College Algebra) and Math25 (Trigonometry)

Technology: A graphing calculator is **required** for this course. Calculators are available for loan through the CR Math Dept. This course will also utilize *Mathematica*, which is available on campus computers, and can be downloaded onto personal computers for free using your CR email.

Homework: Homework will be assigned daily, with each assignment to be completed by the following class period. Homework will directly relate to in-class quizzes. Students will be expected to assess the accuracy of homework solutions on their own using textbook solutions and occasionally *Mathematica*.

Quizzes:

Quizzes will be used to ensure retention of material and to give students practice in a test-like environment. Quizzes will occur at the beginning of class and may not be made up once they've been returned to the class. Quizzes will be announced the class period before they occur.

Quizzes will be open-homework; you may use your homework from the night before as notes for your quiz. Quiz solutions will be posted in Canvas once returned (which is why students may not take them late).

Overall quiz grades percentages will be calculated out of the total number of quiz points earned by the person with the most quiz points in the class. (If, after 6 10-point quizzes, the best overall quiz grade in the class is 56/60, then all students quiz percentages are scored out of 56 points, not 60 points. This means that the student with the best quiz grade in the class will always have a 100% for their quiz score.) This adjustment will not appear in Canvas; your overall quiz grade in Canvas will always be your raw score, and so will always be lower than your actual overall quiz grade (unless you have a 100% as your overall raw score).

Tests: Tests will be given in class with at least one week's notice. Make up tests will only be given under extreme and documented circumstances. Test date and times are not flexible. All students are expected to take every test exactly as scheduled. That being said, life does happen. If for any reason you are unable to attend a regularly scheduled test, <u>and</u> are unable to communicate that to me <u>before</u> the test, you will have three school days after the test day to provide proof of your extreme and <u>documented</u> circumstances. Lack of transportation for any reason does not constitute extreme and documented circumstances, as you can still email me or call my office phone <u>before</u> the test occurs. Makeup tests will be taken in the testing center in the LRC.

Final Exam: This course requires that each student take a comprehensive final exam at the end of the semester. The final exam time and date for this course is **Monday, December 10, 10:45-12:45**. Every student will take the final exam at this time and date with no exceptions. If you cannot attend this final exam, you should not take this course. Students must receive a grade of 50% or greater on the final exam to pass the course regardless of remaining components of their grade.

Attendance: Attendance is required. I reserve the right to drop any student from the course who misses more than 4 course meetings. If you know you are going to miss a class, it is your responsibility to be in contact with me <u>before</u> class is missed. Quizzes may not be taken after they've been returned to the class.

Grading: I generally use the traditional grading scale (90-100 = A, etc.) but occasionally will grade on a curve. You must "pass" the final exam with a grade of 50% or greater to pass the course, regardless of the other components of your grade. Here are the components of your final grade:

Quizzes - 30% Tests - 50% Final Exam - 20%

Updates: I reserve the right to make changes to this syllabus as I see fit. All changes will be announced in class and/or in an Announcement on Canvas.

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General Expectations

To ensure that we can all share in a positive learning environment, it is important that we all have proper expectations for how we'll work together, and it is important that we are all held to those expectations.

What you, the student, should expect from me, the professor:

You should expect me to begin and end class on time every day.

You should expect me to always be well-prepared to teach the day's topic.

You should expect me to be present and able to assist you during all office hours.

You should expect me to assign homework (almost) every class period.

You should expect me to announce all tests one week prior to the test.

You should expect me to grade and return all homework and tests in a timely manner.

You should expect me to have respect for all of your questions and answers (that are course-related).

What I, the professor, will expect from you, the student:

I expect you to plan to attend every day of the course.

I expect you to arrive in class on time.

I expect you to contact me before any missed classes to ensure you don't miss out on homework/quizzes.

I expect you to complete all homework assignments by the given deadline.

I expect you to seek help if you struggle with the homework.

I expect you to <u>need</u> to seek help; experiencing the struggle is part of the essence of education.

I expect you to participate in class by verbalizing questions and answers relating to class discussion.

I expect you to interact in a positive manner with other students in the class.

I expect you to have respect for my teaching process by keeping classroom distractions to a minimum.

I expect you to have respect for your fellow students by not engaging in side conversations that make it difficult for surrounding students (and myself!) to focus.

I expect you to mute and put away cell phones for the entire duration of every class.

I expect you to have respect for me and my teaching style, and for any disagreements about that to be discussed in a professional and constructive manner in a private setting.

Any student who fails to meet any of the last 5 student expectations may be removed from the course.

Some incorrect expectations:

Some students believe that because I do not take daily attendance that attendance is optional. As each part of the course builds on previous parts, missing a lot of class will prevent you from understanding future material. This issue is compounded by the fact that this course will increase in difficulty as the semester progresses.

Some students believe that they are placing some undue burden on me by asking for extra help. Helping you learn is literally 100% of my job. What <u>is</u> a burden to me is lying awake at night wondering why the students who just failed the last test haven't come to see me to make an improvement plan for the next chapter. Don't make me lose sleep - just have me help you! It's my job!

Some students believe that because this is <u>community</u> college, expectations will be lower than if you were to take this course at, for example, Humboldt State University. Instead, you should understand that the operative word here is "college", and that I hold students to the exact same level of expectation here as I've held students to when I've taught this course in a state university setting (which I have). The learning outcomes and course content for this course are mandated by the state and are therefore identical for all offerings of this course no matter where you go in the state of California, so you should not expect any different level of expectation here than anywhere else you might take this course; the math is all the same.

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Some students believe that they can "wing it" at the beginning of the semester, and worry about their grade closer to the end of the semester. It is <u>very</u> rare that a student performs better on the harder material at the end of the course than they did on the easier material at the beginning of the course. Passing any class is a <u>full-semester process</u>, and should be treated as such. If you are performing poorly on homework and tests, don't wait until the second half of the semester to do something about it. Students are expected to be proactive and to self-advocate to obtain the resources necessary for their success.

Some students believe that they have the right to schedule the course as they see fit. While I consider myself a pretty friendly and flexible guy, I am quite rigid when it comes to tests and the final exam going exactly according to schedule for all students. Do not miss tests. For any reason. Period. Students who no-show a test (meaning didn't attend and didn't communicate about the lack of attendance beforehand) will have three (3) school days to provide proof of an extreme circumstance to me, after which the test grade will be an irreplaceable zero. For example, if your car breaks down on the way to campus to take a test, the first thing you need to do is email me to ensure that you've communicated your situation to me BEFORE the test occurs. Showing up to class the day after the test and telling me "I couldn't make it, I got a flat tire" will result in an irreplaceable zero for the test, as this does not constitute extreme and documented circumstances, and was not communicated to me before the test occurred. If you have a very legitimate reason to miss a test but fail to communicate the proof of your circumstance to me within three school days, you will have missed your make-up test opportunity, regardless of the legitimacy of your lack of attendance. Life will happen, but if you stay in communication with me about it, everything will be fine.

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