Math 1310–002: Calculus for Life Sciences (CLS)   **Course Syllabus**   Spring 2019

Class Meetings: Monday through Friday 10:00–10:50 AM, in ECCR 1B55.

Instructor: Eric Stade (email: stade@colorado.edu)

Office Hours: Wednesdays 11:30 AM–1 PM and Thursdays 12–1:30 PM, in GOLD A152.

Teaching Assistant: Peter Rock (email: peter.rock@colorado.edu)

Prerequisites. Requires prerequisite course of APPM 1235 or MATH 1021 or MATH 1150 or MATH 1160 (minimum grade C-) or an ALEKS math exam taken in 2016 or earlier, or placement into calculus based on your admissions data and/or CU Boulder coursework.

Course website. Please see

`http://math.colorado.edu/~stade/CLS/CLS_Spring2019.html`

for homework assignments and other stuff relevant to the course.

Text. *Calculus in Context, Revised*, by Stade, Callahan, et al., is *free*, and can be found online at

`http://math.colorado.edu/~stade/CLS/textbook.html`

(The text is still under development; this is not the final version.) There is also a link to this text on our above course page.

Technology:

- **Canvas.** We will be using Canvas, CU Boulders learning management system, for recording grades and for other important course information.

  To access Canvas, go to: `https://canvas.colorado.edu`. Log in using your CU login name and IdentiKey password.

  Once you log in, click on "CLS Section 002" to go into our course.

- **Sage.** For this course, you will need a device – laptop or tablet – with wifi and a web browser. You will be using this device to create and run mathematical code, using a math software package called **Sage**, in a number of your in-class tutorials (see item **(b)** under "Requirements and grades," below). You will also be using Sage for various homework assignments.

  More information on this requirement will be provided in class.

- **Calculator.** For exams in this course, you will **need** to own an *approved* calculator that has keys for basic operations ($+, -, \times, \div,$ and $\sqrt{\ \ }$), and for basic transcendental (trigonometric and exponential/logarithmic) functions, but does NOT have programming or graphing features. Permissible calculators (all of which are in the same price range) are:

  - Sharp EL-500W Electronic Calculator – the CU Bookstore should have these. See

    `http://www.cubookstore.com/p-68896-sharp-electronic-calculator.aspx`
  - Texas Instruments TI-30Xa Scientific Calculator
  - Texas Instruments TI-30XIIS Scientific Calculator
  - Hewlett Packard 10s+ Scientific Calculator
  - Casio FX-260 Solar Scientific Calculator

If you have a calculator that you would like to use for exams, and it is NOT one of the above, you MUST get it approved by your instructor BEFORE the day of the exam.

Mathematics Academic Resource Center, also known as MARC. You may seek assistance with your math questions at the MARC, which will be open (excluding holidays) Monday–Thursday 9 AM–9 PM and Friday 9 AM–4 PM, in Math 175.

Please see our course web page for the schedule of MARC tutors who are most familiar with, and will be most able to help you with, the material for this course.

Requirements and grades. Your grade in this course will be computed on the basis of:

(a) In-class Exams (40% of your final grade). You will have three in-class exams, which will take place on the following Wednesdays:

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February 6, March 6, and April 10.

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No late or make-up exams will be given for any reason. However, **your lowest in-class exam grade will be dropped.** Each of your two non-dropped exam scores will count towards **20%** of your final grade.

We will *review* for each in-class exam during the class period on the day before the exam itself.

You will also have a **final exam**, worth **24%** of your final grade, on

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Tuesday, May 7, 10:30 AM–1:00 PM (location to be determined).

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(b) Tutorials (a.k.a. "worksheets") (12% of your final grade). There will be group assignments to be completed in class on *Tuesdays and Thursdays*, and occasionally on other days of the week. Please consult the daily schedule of topics on our web page, where "tutorial" days are clearly marked.

These tutorials will be distributed in class, and you will work on them with your classmates in **groups of three**. Your instructor or your Teaching Assistant (TA) will be present during tutorials to facilitate your work, but the goal is for you and your groupmates to *work through, and complete, these worksheets on your own* as much as possible.

To get full credit for a tutorial, you must attend class on that day, and *participate* in your group's explorations and discoveries. Another really good reason to take part in tutorials is: material covered in tutorials **WILL** be on your exams.

Missed tutorials cannot be made up; if you miss a tutorial, you will receive a zero for that tutorial grade. *If you are more than five minutes late for any tutorial, you will get at most half credit for that day.* However, we will drop your lowest *five* tutorial scores.

(c) Homework (24% of your final grade). Homework for this class will come in three flavors: **(i)** Individual written assignments, collectively worth **12%** of your final grade; **(ii)** "Mini Project" assignments, collectively worth **6%** of your final grade; and **(ii)** a Term Project (which will be due in two stages), collectively worth **6%** of your final grade.

Mini Projects and the Term Project are to be completed collaboratively, in the same groups that you work with for tutorials. We will discuss formation of groups during the first week of classes.

All assignments will be posted on our course web page. Missed homeworks *cannot be made up for any reason*; if you miss a homework, you will receive a zero for that homework grade. We will

drop your lowest *two* individual homework scores.

Note: Scores for your Mini Projects and Term Project may *NOT* be dropped. More details on the Mini Projects and Term Projects will be supplied in class.

Please see the "Homework Assignment Guidelines" link under the "General Information" header of our course page for important instructions on completing Individual, Mini Project, and Term Project assignments!!!

Other important course information. Please see our course web page for important policy information regarding disabilities, religious holidays, classroom behavior, discrimination and harassment, and the CU Honor Code.