

Math 220 Section X: Calculus for life sciences majors (“Biocalc”)

Instructor: Joseph Palmer

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Instructor Office: Illini Hall 230 (but I won’t be in that office this semester at all)

Instructor Website: <http://sites.google.com/view/jpalmer>

TA: TBD

Notice: This course will take place online, in a combination of zoom meetings and pre-recorded lectures. The first zoom meeting will take place on Wednesday, Jan 27th at 10am-10:50am. The zoom link will be posted on the Moodle page. It is highly encouraged that you attend this first meeting so we can discuss course policies and I can give a quick introduction to the course.

Textbook: Mathematics for the Life Sciences by Bodine, Lenhart, and Gross.

(Here is a picture of the textbook.

<https://www.amazon.com/Mathematics-Life-Sciences-Erin-Bodine-ebook/dp/B00KAJJBT2>
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Course Description:

This course is a special section of Calculus I aimed at life science majors, such as Biology majors. The mathematical content will be essentially the same as the content in the usual sections of Math 220, but the examples and the focus will be related to biology. Calculus is the study of continuous systems and how they change over time, as such it is extremely relevant in biological applications (despite the fact that applications and examples in most Calculus I courses are typically more closely related to physics and engineering).

We will discuss some background and then cover Units 4-7 of the text:

- Functions (loosely following Chapter 4)
- Limits and continuity (Unit 4)
- Derivatives (Unit 5)
- Integrals (Unit 6)
- Differential Equations (Unit 7)

Moodle:

Everything in this course will be organized from the course's Moodle page. This will include links to the video lectures, zoom meetings, homework assignments, course schedule, and Campuswire discussion board. We will also be using the Moodle gradebook, so you can log onto this page to see your current grade in the course. Please inform me of any discrepancies between the grades you think you got and your grades on Moodle immediately.

Lectures:

The lectures in the course will be delivered as pre-recorded videos with links posted to the Moodle site.

Class meetings:

The class will meet on zoom each Wednesday 10-10:50am for an interactive question and answer section with the professor. This is to supplement the pre-recorded lectures that will be posted online, so you should plan to both watch the pre-recorded lectures and attend the Wednesday meetings.

Office hours:

Office hours will be via zoom and will occur Mondays and Fridays 10-11am. Zoom links will be posted on the Moodle site.

Problem sessions with the TA:

The TA will host problem sessions via zoom on Tuesdays and Thursdays. On some meetings this will include worksheets which will sometimes be collected for a grade. The time of these sessions depends on which section you are enrolled in:

- Section XDA: 9-9:50am Tuesdays and Thursdays
- Section XDD: 12-12:50am Tuesdays and Thursdays
- Section XDE: 2-2:50am Tuesdays and Thursdays

Campuswire discussion board:

The Campuswire system will also be made available as a forum for asking questions and interacting with other students. The instructor and the TA will both answer questions posted on the discussion board, as will your fellow students. Moreover, before office hours the instructor and TA will look at this to see what problems people are struggling with, so if you have questions be sure to use this forum.

Grading:

Breakdown of grades:

- 20% Homework and worksheets (probably 15% hwk and 5% worksheets)
- 40% Midterm exams
- 40% Final exam

The grading scale will be

- A: 90.0%-100.0%
- B: 80.0%-89.9%
- C: 70.0%-79.9%
- D: 60.0%-69.9%
- F: <60.0%

The top and bottom 2% of each letter grade will be for +/- grades (so an A- would be 90.0%-91.9%).

Homework:

The homework assignments will be due on nearly every Friday of the course, and will be uploaded via the Gradescope system.

Exams:

There will be five midterm exams in the course and one final exam. The midterms will take place via zoom during class time (10am-10:50am) on the following dates: Feb 12, Mar 5, Mar 19, Apr 2, Apr 23. The final exam will take place on **TBD**.

Integrity:

You are encouraged to discuss problems pertaining to this course and examples from class with your classmates, but you should complete the homework assignments independently. Remember you will be alone for the exams, which are the majority of your grade, so the homework problems should be approached as important practice. Of course, I will not tolerate any cheating during the midterms or the final. See <http://www.admin.uiuc.edu/policy/code/> for more details about the academic integrity policies at U of I.

Disability Needs:

If you have a disability, please coordinate with Disability Resources and Educational Services (DRES) as early as possible in the semester and I will do my best to accommodate your needs.

CBTF for exams:

This course uses the College of Engineering Computer-Based Testing Facility service CBTF Online for its exams. The policies of the CBTF are the policies of this course, and academic integrity infractions related to the CBTF are infractions in this course.

If you have accommodations identified by the Division of Rehabilitation-Education Services (DRES) for exams, please email your Letter of Accommodations (LOA) to CBTF Manager Carleen Sacris at sacris1@illinois.edu before you make your first exam reservation.

If you have any issue during an exam, please inform the proctor immediately. Work with the proctor to resolve the issue at the time before logging off. Review all instructions on the CBTF website before your first exam: <https://cbtf.engr.illinois.edu/cbtf-online/index.html>