

MATH 255A: Calculus for the Life Sciences I, Spring 2020

Class number: 17980 Class schedule: TuTh 11:00-12:15pm in LO 1325

Instructor: Dr. Vladislav Panferov, office SN 131, phone (818)677-2326

Office hours: Mon Wed 11:00-1:00pm, or by appointment

Email: vladislav.panferov@csun.edu

Course webpage: www.csun.edu/~panferov/math255a/

MATH 255AL Lab: This class has a lab section attached to it which is mandatory for all students who are Conditionally Prepared. The lab is designed to provide supplemental instruction and training to help cover the gaps and prepare for the exams. All students are encouraged to enroll in the lab; even if you are not required to take it you should still consider attending as long as it fits your schedule.

MATH 255AL class #18324, F 11:00am-12:15pm in LO1127. Instructor: Rimma Hamalainen

Course description: First semester of a brief course in calculus, emphasizing applications to biology and other natural sciences. Topics include functions of one variable, graphs, limits, continuity, derivatives, techniques for finding maxima/minima, introduction to integration, fundamental theorem of calculus and integration by substitution. This course is available for General Education, Basic Skills Mathematics.

Goal: Students will gain competence in mathematical reasoning necessary for informed judgment and decision making.

Student Learning Outcomes: Students will:

- Represent, understand and explain mathematical information symbolically, graphically, numerically and verbally;
- Develop mathematical models of real-world situations and explain the assumptions and limitations of those models;
- Use models to make predictions, draw conclusions, check whether the results are reasonable, and find optimal results using technology when necessary and appropriate;
- Demonstrate an understanding of the nature of mathematical reasoning, including the ability to prove simple results and/or make statistical inferences.

Text (required): Calculus for Life Sciences with WileyPLUS Card Set, by S. J. Schreiber, K. Smith, W. Getz, 1st ed., Wiley 2014, available at CSUN Matador Bookstore. (You *will* need the code from the package for online homework!)

Prerequisites: Passing Score on or exemption from the Entry Level Mathematics Exam (ELM) or credit in Math 093, and either a passing score on Mathematics Placement Test (MPT) or completion of MATH 105 (or 102/104), or transfer credit from another college for the equivalent of the above courses, with grades C or better.

Grading: 10% online homework, three midterm tests 20% each, and 30% final exam (cumulative). The lowest midterm score will be replaced by the final exam score, if such a replacement results in increasing the total average.

The percentages are generally translated into letter grades using the following scale: 90-100% A; 77-90% B, 65-77% C, 50-65% D, 0-50% F. Small modifications to the cutoff numbers may be done at the end of the semester to account for particulars of grade distribution. There will be no “grading on the curve”, *i. e.* there is no prescribed number of A’s, B’s, C’s and D’s given in this course. Plus and minus grades may be assigned at instructor’s discretion.

Assignments: Homework will be assigned for each section covered in class and is to be completed via the WileyPLUS online system <http://www.wileyplus.com/>. Homework will be automatically submitted on the due date; late assignments will receive no credit. Most online homework problems are from the textbook – work with the textbook when you solve homework problems. Even though the homework receives only 10% of the total grade, it is probably the course’s most important component. Allow yourself sufficient time to work on the problems, keep notes and refer to them to prepare for the exams – this will improve your chances for success in this course greatly.

Midterms: There will be three in-class midterms, tentatively scheduled for February 13, March 12 and April 16 (all Thursdays). This schedule may be adjusted, and the changes will be announced in class and on the course webpage. All tests are closed books/notes; graphing calculator (see below) is allowed on the midterms.

Make-ups: There will be no make-up exams, unless in very special cases due to circumstances beyond your control. In such cases arrangements for an alternate date and time should be made prior to the scheduled test date.

Calculators and Other Technology: A graphing calculator such as TI 83 or TI 84 Plus is strongly recommended for this course, and calculators may be required for the exams. For a list of acceptable graphing calculators see here:

<http://apstudent.collegeboard.org/takingtheexam/exam-policies/calculator-policy>.

There is probably no need to get the most advanced graphing calculator on the list, and on the exams you will be required to show your work beyond the graphing calculator output. Any of the two mentioned TI calculator models should be sufficient for the purposes of this class.

Other technology tools that are useful for this course include the Wolfram Alpha website:

www.wolframalpha.com

and/or Wolfram Alpha iPhone/Android apps (basic functionality is available for free on the

web, and mobile and tablet apps have additional useful features) and GNU Octave:

<https://www.gnu.org/software/octave/>

which is a powerful tool for numerical computations available for free on Windows PC, Mac or Linux.

An approved graphing or scientific calculator is the only electronic device allowed on all tests/exams; cellphones and other electronic devices must be off and put away completely for the duration of the exams.

Final Exam: On Monday 05/11/2020, 12:45-2:45pm (location TBA). The final exam is comprehensive, same rules as for the midterms apply. You must take the final exam to get a passing grade for the course; final exam no-shows will automatically result in grade WU.

Academic Honesty: Students are encouraged to discuss the assignments out of class and share ideas. However, each student must individually complete and submit his or her own work, whether in paper form or online. The submission of work for grading that is not your own will be considered a violation of the rules of academic honesty and will be dealt with in accordance with University regulations. Students are expected to uphold the CSUN standards of conduct as described in the University catalog: <http://catalog.csun.edu/policies/student-conduct-code/>. Incidents of academic dishonesty, including cheating on the exams will result in student forfeiting credit for the assignment, and will be reported to the University authorities.

Classmate contact information [you are recommended to get basic contact information from two classmates (*such as email address or phone number*) so that you can call on these classmates for help in case you miss a meeting or have a simple question.]

Classmate Name: _____

Classmate Contact: _____

Classmate Name: _____

Classmate Contact: _____