

DEPARTMENT OF MATHEMATICS
California State University, Bakersfield
MATH 212 – Calculus for Life Sciences and Medicine II

Instructor: Charles Lam

Office: SCI 114E

Phone: (661) 664 2403

Email: clam@csub.edu

Homepage: <http://www.csub.edu/~clam>

Class times: 3:30-5:30MR (DDH 100J), 3:30-5:55T (SCI 176)

Office Hours: 11:30-12:30MW, 2-3:30MR, or drop by when I am in.

Course Description: This is the second course in calculus, topics include integration and its applications, series, and differential equations.

Course Objectives:

- (1) Introduction of the definite integral through the use of Riemann sums.
- (2) Apply the Fundamental Theorem of Calculus to evaluate definite integrals.
- (3) Integration Techniques; improper integrals, numerical integration, integration tables.
- (4) Applications of integration: Area, cumulative change, average value.
- (5) Introduction to Taylor polynomials.
- (6) Introduction to differential equations: pure time and autonomous. Stability of equilibrium solutions in single compartment models. Other applications to include Levins model; allee effect; epidemic models.

Text: Calculus for Biology and Medicine, 2nd ed., by Claudia Neuhauser

Topics covered: Chapters 6, 7 and 8.

Web page: The web page for the course is at <http://www.csub.edu/~clam/math212w07.html>

Labs: Lab are conducted on Tuesdays. Attendance is required. You are required to work in groups of 2-4 on assigned problems and hand in the lab reports **individually** at the beginning of class on Thursdays.

Quizzes: There will be a quiz every Thursday, except on the week with a test. There are no make-up quizzes.

Grading: In addition to labs and quizzes, there will be two tests, and a final exam (cumulative). A pass (50%) in the final exam is required to obtain a final grade of D- or better. A 60% in the final exam is required to obtain a final grade of C- or better.

Labs	15%
Quizzes	15%
Test 1	20%
Test 2	20%
Final Exam	30%

Test Dates:

- First Test: Feb 1, Thursday (tentative)
- Second Test: March 1, Thursday (tentative)
- Final Exam: March 14, Wednesday, 5-7:30pm

Remarks:

- There will be no make-up exams or tests. If you know in advance that you are going to miss an exam, please make your arrangements with me at least one week ahead.
- Please hand in labs on time. Late labs will be accepted up to the beginning of next class for 50% of credit.

Academic Dishonesty:

You are encouraged to work with your classmates in labs and homework. However, YOU ARE REQUIRED TO HAND IN WORK WRITTEN BY YOURSELF. A rule of thumb is to destroy any evidence of discussion before writing up the solutions yourself.

If you collaborated with anyone, ACKNOWLEDGE COLLABORATORS. Please also note that, ACKNOWLEDGING YOUR FRIENDS ON THE CONTRIBUTION DOES NOT MEAN YOU HAVE THE RIGHT TO COPY OTHERS' WORK. YOU MUST WRITE THE SOLUTIONS IN YOUR OWN WORDS.

If you are caught cheating, the policy for this class is -10% to the final grade on the first offense, -20% for the second, and -50% thereafter.