

DEPARTMENT OF MATHEMATICS
California State University, Bakersfield
MATH 203 – Calculus 3 – Section 2 and 3

Instructor: Charles Lam

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Class times: MTR 4-6 (SCI 3-212)

Office Hours: MTR 2-4 or drop by when I am in.

Course Description: This is the third course in calculus, topics include vectors, geometry of space, vector functions, partial derivatives, and basic double integrals.

Course Objectives:

- (1) Introduction to the three-dimensional coordinate system, vectors, equations to lines, planes, and surfaces in parametric and vector forms; vector functions and space curves.
- (2) Evaluation of derivatives and integrals of vector functions, applications in arc length, curvature, motion in space.
- (3) Introduction to parametric surfaces.
- (4) Analysis of functions of several variables: limits, continuity, partial derivative, tangent plane, chain rule, gradient vector; applications in linear approximation and optimization.

Text: Calculus – Concepts and Contexts, 4th ed., by James Stewart (or Multivariable subtext)

Topics covered: 9.1-9.6, 10.1, 10.2, 6.4, 10.3, 11.1-11.8, 12.1-12.3

Web page: The web page for the course is at <http://www.csub.edu/~clam/math203w13.html>

Student Presentations: In every class, students will be required to present homework solutions to some problems.

Homework: Weekly homework will be given, you will have one week to finish homework.

Quiz: There will be short quizzes, and will be announced one class ahead.

Grading: In addition to student activity and homework, 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.

Student Presentations	5%
Homework	10%
Quiz	10%
Test 1	20%
Test 2	25%
Final Exam	30%

Test Dates:

- First Test: February 12, Tuesday (tentative)
- Second Test: March 12, Thursday (tentative)
- Final Exam: March 20, 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 and homework on time. Late labs and homework 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.