

**DEPARTMENT OF MATHEMATICS**  
**California State University, Bakersfield**  
**MATH 300 – Sets and Logic**

**Instructor:** Charles Lam

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

**Class times:** 4-6MR, DDH 103H, 4-6T, DDH 105H

**Office Hours:** 2-4TR, 6-6:30MTR, or drop by when I am in.

**Text:** How To Prove It-A Structured Approach, 2nd Ed, by D.J. Velleman, ISBN 0-521-67599-5

**Course Objectives:** This is a course designed as a transition from elementary mathematics to higher mathematics. You will be introduced to formal language in mathematics, and the ways of expressing mathematical ideas rigorously. Contents include:

- (a) Introduction to logic
- (b) Introduction to set theory
- (c) Introduction to proofs
- (d) Mathematical Induction
- (e) Relations
- (f) Functions
- (g) Real number system and cardinality

**Web page:** The web page for the course is at <http://www.csub.edu/~clam/math300s07.html>

**Homework:** Every week, homework problems will be assigned and is due on the day of the lab the week after. In each homework, 10% of the total grade will be allocated to the presentation of your work.

**Labs:** Labs are conducted every Monday. Attendance is required. In each lab, students will take turns to present solutions to homework problems from the previous week. Each student is required to present **at least** twice during the quarter.

**Grading:** In addition to 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.

Homework .....	25%
Test 1 .....	20%
Test 2 .....	25%
Final Exam .....	30%

**Test Dates:**

- First Test: May 1, Tuesday (tentative)
- Second Test: May 29, Tuesday (tentative)
- Final Exam: June 5, Tuesday, 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 homework on time. Late 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.