

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

**Instructor:** Charles Lam  
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**Class times:** 4-6MTR, DDH 107E

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

**Text:** A Transition To Advanced Mathematics, 6th Ed, by Smith, Eggen, St. Andre, ISBN 0-534-39900-2

**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 and proofs
- (b) Introduction to Set Theory
- (c) Forms of Mathematical Induction
- (d) Relations
- (e) Functions
- (f) Real number system and cardinality

**Web page:** The web page for the course is at <http://www.csub.edu/~clam/math300s06.html>

**Labs:** Lab are conducted every Monday. 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 of the Monday after. In each lab, 20% of the total grade will be allocated to the presentation of your work.

**Quizzes:** There will be a quiz every Monday, at the beginning of the class, 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 .....	25%
Quizzes .....	15%
Test 1 .....	15%
Test 2 .....	20%
Final Exam .....	25%

**Test Dates:**

- First Test: May 2, Tuesday (tentative)
- Second Test: May 30, Tuesday (tentative)
- Final Exam: June 6, 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 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.