

Las Positas College  
3000 Campus Hill Drive  
Livermore, CA 94551-7650  
(925) 424-1000  
(925) 443-0742 (Fax)

## Course Outline for MATH 60

### MATH STUDY SKILLS

Effective: Fall 2003

#### I. CATALOG DESCRIPTION:

MATH 60 — MATH STUDY SKILLS — 1.00 units

This course is designed to assist students in learning mathematics through the development of successful study skills and exam taking methods. Designed primarily for students in beginning or intermediate algebra, this course addresses learning styles, how to read a math book, completing homework assignments, how to take notes and exams, basics of calculator operations and techniques for overcoming math anxiety. CR/NC

1.00 Units Lecture

#### Grading Methods:

Pass/No Pass

#### Discipline:

	<u>MIN</u>
<b>Lecture Hours:</b>	18.00
<b>No Unit Value Lab</b>	18.00
<b>Total Hours:</b>	36.00

#### II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 2

#### III. PREREQUISITE AND/OR ADVISORY SKILLS:

#### IV. MEASURABLE OBJECTIVES:

**Upon completion of this course, the student should be able to:**

- A. Describe the differences between learning mathematics and learning other subjects;
- B. Classify and describe individual learning styles, evaluate their own learning style and state ways in which this might affect how they learn in the classroom;
- C. Discuss and analyze the sources of math anxiety and develop methods for reducing its effect on them;
- D. Describe and use a variety of memory techniques;
- E. Apply techniques for reading and studying the textbook to their math courses;
- F. Apply listening and note taking skills to their math courses;
- G. Apply a variety of test preparation and test taking methods to their math courses;
- H. Analyze and assess their math study skills;
- I. Describe how people learn and explain math study strategies that enhance learning;
- J. Solve basic calculator applications
- K. Apply various problem-solving strategies
- L. Use techniques for dealing with negative self-talk and frustrations caused by studying mathematics

#### V. CONTENT:

- A. Learning mathematics vs. learning other subjects
  1. Discuss differences between math and other subjects
  2. Discuss differences between high school math and college math
- B. Learning styles
  1. Use learning styles assessment test to analyze their learning style and its effect on how they learn
  2. Examine learning strengths and weaknesses
- C. Math Anxiety
  1. What is it and what are its sources
  2. Determine if you have it and learn techniques to control it
  3. Techniques of relaxation
  4. Strategies for overcoming negative thoughts
  5. Strategies for strengthening confidence
- D. Memory techniques
  1. Short term and long term memory
  2. Memory aids
- E. How to read and effectively use the textbook
- F. Listening and note taking skills
  1. Practical strategies and methods
  2. What constitutes good note-taking
- G. Test taking strategies

1. Preparation techniques
  2. Designing and writing your own practice test
  3. Test taking techniques
  4. Overcoming test anxiety
  5. Using relaxation techniques before and during a test
  6. Post test analysis of results
  7. Preparing for the final exam
- H. Math study skills
1. What are good study skills
  2. Using a study Log
  3. Analysis of personal math study skills
- I. How we learn and what this means for studying math
- J. Basic calculator applications
1. Order of operations
  2. Basic mathematical functions
  3. Appropriate use of the calculator
- K. Problem solving strategies
1. Various methods
  2. The importance of practice

#### VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Discussion** -
- C. In-class practice of study techniques demonstrated
- D. Personal assessment activities in such areas as learning styles and math anxiety and study skills
- E. Simulation activities in areas such as reading the textbook, taking notes and taking exams.
- F. In-class group work

#### VII. TYPICAL ASSIGNMENTS:

A. Watch and discuss the video, "Math a Four Letter Word." B. Complete and analyze the, "Learning Styles Inventory." C. Form a group with one or two other students. With your group discuss the question, "How is learning math different from learning other subjects". Have one member record the results of your discussion and have one member of your group present the results to the class D. Create a mind web for a topic selected from a math textbook E. Keep a 'Study Log' for one week showing how long and where you study F. Read the handout on learning styles and write a one-page summary discussing the types of study techniques that best fit your learning style.

#### VIII. EVALUATION:

##### A. **Methods**

1. Exams/Tests
2. Papers
3. Group Projects
4. Class Participation
5. Other:
  - a. Methods
    1. Active class participation
      - a. Individual and group discussion
      - b. Individual or group presentations
    2. Group projects
    3. Completion of short written exercises including, but not limited to:
      - a. practice of study techniques introduced during class
      - b. results of group discussions
      - c. performing personal assessment activities
    4. Math Study Skills Final Exam (must be completed to receive credit)
    5. Attendance (must attend 70% of classes to receive credit)

##### B. **Frequency**

1. Frequency
  - a. Every class period
2. Final Exam
  - a. The final exam should consist of a writing assignment that asks students to reflect on their experience in the class and what it has meant to them. Their work should be typewritten in essay form. Typical final exam questions might include:
    1. Summarize what you have learned in this class.
    - b. What did you find most useful?
    - c. What did you find least helpful?
    - d. What would you have liked to spend more time on?
    - e. Evaluate how this class has helped you. Are you using the skills learned? Will you use them? Have they helped?

#### IX. TYPICAL TEXTS:

1. Nolting *Math Study Skills Workbook*. 1st ed., Houghton Mifflin, 2000.
2. Smith *How to Be a Great Math Student*. 3rd ed., Brooks/Cole, 1998.
3. Ooten *Managing the Mean Math Blues*. 1st ed., Prentice Hall, 2003.

#### X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Scientific calculator