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

Course Outline for MATH 100C

CONCURRENT SUPPORT FOR SLAM MATHEMATICS

Effective: Fall 2019

I. CATALOG DESCRIPTION:
MATH 100C — CONCURRENT SUPPORT FOR SLAM MATHEMATICS — 1.00 units

Concurrent Support for SLAM Math is for students interested in disciplines that require Statistics and Liberal Arts Mathematics (SLAM) courses. This course offers structured support to students who are concurrently enrolled in a first-level transfer course, such as Statistics and Mathematics for Liberal Arts, and Finite Mathematics. The support course includes material to prepare students for the rigor of the transfer math course by teaching learning skills necessary to succeed in college courses as well as review of relevant prerequisite algebraic and geometric concepts, and more in-depth investigation of core concepts in their concurrent math course.

1.00 Units Lab

Corequisite
MATH 40 - Statistics and Probability
or

MATH 47 - Mathematics for Liberal Arts
or

MATH 33 - Finite Mathematics

Grading Methods:
Pass/No Pass

Discipline:
- Mathematics

	MIN
Lab Hours:	54.00
Total Hours:	54.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

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

A. Develop study skills and life skills that will improve the student's likelihood of succeeding in their academic goals, such as identifying his/her individual growth mindset and learning about brain research, personal time management, study skills, test taking and conquering math anxiety strategies, etc.
B. Use a problem solving process to read mathematical problems with understanding, identify relevant information, define variables, execute relevant procedures and interpret results in the context of the problem.
C. Apply relevant prerequisite math concepts at a higher level.
D. Organize and justify their mathematical thinking on relevant math problems.
E. Use effective strategies to monitor their own understanding of math concepts.
F. Use learning strategies to identify and communicate in their own words key mathematical concepts.

V. CONTENT:
A. Learn appropriate skills necessary to become more productive, successful and independent learners.
    1. Students will engage in metacognitive activities around new math concepts.
    2. Students will participate in Growth Mindset, Brain Research and learning skills activities.
    3. Students will learn about free resources available on campus and on the internet to enhance their learning of mathematics.
    4. Students will actively participate in activities around topics such as time management, note-taking, study habits, test taking strategies and dealing with math anxiety.
B. Successfully solve context problems by learning how to:
    1. Read context problems with understanding
    2. Identify relevant information.
    3. Define variables.
    4. Execute relevant procedures.
    5. Interpret results in the context of the problem.

C. Review Algebraic and Geometric concepts and practice completing many math problems.
D. Read mathematical text for understanding.
    1. Make a skeleton outline of material covered in the class and textbook.
    2. Highlight important facts in the material or textbook.
E. Learn and apply effective strategies to monitor understanding.
    1. Create summary sheets and/or practice exams before assessments.
    2. Correct any assessments and practice explaining the concepts to someone else.
F. Practice organizing their thinking and justifying each mathematical steps while simplifying or solving math problems.
G. Regular small group workshops will focus on identifying and mastering key mathematical learning objectives.
    1. Students will learn how to communicate their thinking on math problems.
    2. Students will learn how to synthesize big ideas in the material.

VI. METHODS OF INSTRUCTION:

A. **Discussion** - Instructor should allow time during workshops to discuss what main algebraic and geometric concepts were covered in their math course, what the big ideas are, citing their classroom notes and mathematical textbook for evidence.
B. **Demonstration** - Instructor should model examples of what a mathematician should do when approaching the math content. Students should then practice applying those strategies to additional problems.
C. **Directed Study** - Class will spend time in directed math content activities, with students practicing applying concepts individually, in workshops, or in small groups.
D. **Lecture** - Lecture will only be in small, relevant amounts, with specific skills-building goal in mind and time left for students to practice applying the demonstrated skill described.
E. **Individualized Instruction** - Instructor will provide individualized instruction as often as possible.
F. **Audio-visual Activity** - Personalized learning supports and practice on prerequisite material.

VII. TYPICAL ASSIGNMENTS:

A. In Class
    1. Workshops: Review of relevant basic and secondary education prerequisiste algebraic and geometric concepts, and more in-depth investigation of core concepts in their concurrent math course.
        a. Students will regularly participate in workshops
        b. Students will then complete worksheets on the material to test for understanding.
    2. Students will read, watch videos, practice problems, and study material based on their personalized learning goals.
    3. Work independently and in collaboration with other students, supported by the instructor and/or tutors to master the math concepts.
    4. Complete assignments around such topics as Growth Mindset, Brain Research, Financial Aid, Time Management skills, Test Taking Strategies, Career Development, and dealing with Math Anxiety.
    5. Monitor their progress in their concurrent math course by utilizing study skills learned such as correcting graded assignments, practicing time management, etc.
B. Attend three Smart Shops based on their independent learning needs
C. Homework - students will be encouraged to continue work outside of class each day towards the following:
    1. Mastery of key mathematical concepts
    2. Developing study and life skills that will improve the student's likelihood of succeeding in their academic and career goals.

VIII. EVALUATION:

Methods/Frequency

A. Class Participation
    Attendance will be recorded hourly
B. Class Work
    Regular assignments and workshops on learning skills and mastery of relevant mathematical concepts
C. Home Work
    Students will monitor their progress under the supervision of instructors and/or tutors by completing daily homework

IX. TYPICAL TEXTS:

1. Handouts and materials provided by instructors and/or guest lecturers on appropriate elementary algebra math concepts, Growth Mindset, Brain Research, study skills, time management, Career Development and/or test and math anxiety.
2. Free and open-source online resources covering relevant mathematics topics

X. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Access to a computer and internet