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

Course Outline for NMAT 260B

MATH JAM FOR TUTORS

Effective: Fall 2019

I. CATALOG DESCRIPTION:
NMAT 260B — Noncredit

Math Jam is designed to help students prepare for their upcoming math class. This Math Jam Tutor Training course supports tutors during Math Jam to apply strategies for effectively engaging students in learning difficult math concepts with participants. Tutors apply knowledge around intelligent practices for mastering material as they tutor participants during Math Jam. This is an excellent second course for students who are interested in becoming a paid mathematics tutor at Las Positas College or in any educational capacity.

Grading Methods:
Pass/No Pass

Discipline:
- Learning Assistance Instructors or
- Mathematics-Basic Skills: Noncredit

Noncredit Category
I - Short-Term Vocational

	MIN
Total Noncredit Hours:	5.00

II. PREREQUISITE AND/OR ADVISORY SKILLS:

III. MEASURABLE OBJECTIVES:

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

A. Support students in math using best practices in teaching and learning pedagogy.
B. Assist students comfortably in a lab setting.
C. Model effective problem-solving, growth mindset and study skills.
D. Coach students in how to be an effective learner, using Growth Mindset theory and intelligent practices to be successful.
E. Provide guided math workshops to students on historically difficult topics with the support of instructors and fellow tutors.

IV. CONTENT:
A. Apply best practices from Growth Mindset.
    1. Tutors will model for students a growth mindset and use language accordingly to enhance students' growth mindset around learning.
B. Apply and reflect on best practices in tutoring and learning of mathematics
C. Apply and reflect on effective interaction with students:
    1. In a lab setting
    2. In questioning students about math concepts and progress
    3. Developing independent learners.
    4. Modeling effective problem-solving techniques
    5. Instilling growth mindset in students they are supporting
D. Discuss historically difficult math concepts with instructors, fellow tutors and assist students in mastering.

V. METHODS OF INSTRUCTION:
A. **Classroom Activity** - such as instructor and/or tutor led discussions, workshops, etc.
B. **Audio-visual Activity** - such as watching videos, reading multi-media textbook, working problems out in steps, etc.
C. **Discussion** - daily meta-cognitive discussions around the act of tutoring effectively.
D. **Individualized Instruction** - such as personalized instruction provided by the instructor and/or fellow tutors
E. **Guest Lecturers** - such as workshops led by content experts around the campus on such topics as Growth Mindset, Brain Research, Time Management, Test Taking Skills, Math Anxiety, etc.

VI. TYPICAL ASSIGNMENTS:
A. Hands on mathematial tutorial experience working with students in a lab setting.
B. Daily learning goals and reflection for how to engage students more successfully.

VII. EVALUATION:
Methods/Frequency

A. Class Participation
    Daily attendance required.

B. Class Work
   Daily hands-on activities around effective tutoring of mathematics.
C. Home Work
   Daily reflection and written feedback.

VIII. TYPICAL TEXTS:

1. Bass, Alan. *Math Study Skills.* 2 ed., Publisher, 2013.
2. Nolting, Paul. *Winning at Math Transition: Mathematics Study Skills Guide for Students Preparing for College.* 1st ed., Academic Success Press, Incorporated, 2017.
3. Brock, Annie, and Heather Hundley. *The Growth Mindset Playbook: A Teacher's Guide to Promoting Student Success.* 1st ed., Ulysses Press, 2017.
4. Boaler, J.. Mathematical Mindsets. Jossey-Bass , 2015.
5. Dweck, Carol S. "Transforming Students' Motivation to Learn." 2008.

IX. OTHER MATERIALS REQUIRED OF STUDENTS: