Mt. San Antonio College

October 27, 2015

Effective Term: Summer 2015

Course ID: TUTR 10D

Student Learning Outcomes

Title: Tutoring in Mathematics

Division: Library and Learning Resources Division

Department: Learning Assistance Department

Discipline: Tutor Training

Short Title: Tutoring in Mathematics

Course Status: Approved Maximum Class Size: 30

Method of Instruction:

- Lecture
- Laboratory
- Lecture and Laboratory
- Independent Studies
- Distance Learning (Distance Education Delayed) for online courses

** MAXIMUM CONTACT HOURS **

Lecture Hours: 18.00

** CREDIT UNITS **

1.00

Lab Hours:

Activity Hours:

Clinical Hours:

Total Hours: 18

Taxonomy of Programs (TOPS) Information:

TOPS Code and Course Program Title:

080100 - Education, General

SAM Priority Code:

☐ A. Apprenticeship
Courses offered to apprentices only.

☐ B. Advanced Occupational
Courses taken in the advanced stages of an occupational program. Each “B” level course must have a “C” level prerequisite in the same program area.

☐ C. Clearly Occupational
Courses taken in the middle stages of an occupational program. Should provide the student with entry-level job skills.

☐ D. Possibly Occupational
Courses taken in the beginning stages of an occupational program.

☐ E. Non-Occupational

Discipline Placement:

Learning Assistance Instructors
Mathematics

State Transfer Code: C0 Not Transferable, No Degree

Grading Method: Optional Letter Grade or P/NP

Frequency Offered:

☐ Fall
☐ Winter
☐ Spring
☐ Summer
☐ On Demand

Earn Credit: Non-repeatable Credit - equates to 0 repeats

Transfer Status

Baccalaureate Status is granted by the Educational Design General Education and Baccalaureate Level Subcommittee.

☐ CSU Transferable  CSU Approval Date: (mm/dd/yyyy)

☐ UC Transferable  UC Approval Date: (mm/dd/yyyy)

Course Requisites

Prerequisite:

MATH 71
Co requisite:

Advisory:

Course Special Designators

Course Description:
Tutoring in mathematics with an emphasis on strategies to promote active learning.

Course Outline:
- Tutoring strategies, philosophies, and approaches
- Math Activities Resource Center, Transfer Math Activities Resource Center, and LAC: policies, procedures, resources and software
- Tutoring strategies: active learning, motivation, self-regulated learning, and successful study behaviors
- Obstacles: pre-algebra, beginning algebra and practicum, intermediate algebra and special topics, identification of tutoring challenges and ways to overcome them in tutoring sessions
- College level math tutoring approaches: advanced math courses, groups
- Theories of mathematical learning: cognitive science and educational fields
- Application of learning theories: tutoring math, structuring tutoring sessions effectively
- Informal assessment of tutees
- Final presentation

Lab Outline:

Course Measurable Objectives:
1. Identify common obstacles to tutees’ success in developmental algebra classes.
2. Develop strategies for overcoming identified obstacles.
3. Identify and classify problems in tutoring mathematics.
4. Analyze various theories from cognitive science related to the learning of math.
5. Evaluate implications of learning theories as they relate to tutoring strategies.
6. Develop strategies to promote active learning using instructional theories.
7. Apply assessment strategies in tutoring sessions

Course Methods of Evaluation:

Category 1. Substantial written assignments for this course include:
- 1/2 page journals focusing on tutoring challenges and solutions
- Two 3-5 page research papers on tutoring techniques and theory
If the course is degree applicable, substantial written assignments in this course are inappropriate because:

Category 2. Computational or non-computational problem solving demonstrations:
Weekly case studies using role-playing to demonstrate the assigned tutoring strategies

Category 3. Skills Demonstrations:
Application of tutoring strategies during tutoring sessions
Tutoring techniques demonstrated in tutoring session videos
Tutoring session evaluations based on instructor developed criteria

Category 4. Objective Examinations:
Final presentation graded by professor rubric

Sample Assignments:

1. Present three different ways to help a student understand the following math problems: a.) multiplying binomials, b.) factoring and completing the square.

2. Keep a journal for each tutoring session. Each entry should be at least one page in length and include problems and issues that occurred during the tutoring session. Also include possible strategies for resolving the problem.

3. Meet with instructor to discuss the strengths and weaknesses of at least one tutoring session previously observed by the instructor. Discuss how you applied learning and instructional theories in your tutoring session.

Representative Text:

Book 1:
Author:
Title:
Publisher:
Date of Publication:
Edition:

Book 2:
Author:
Title:
Publisher:
Date of Publication:
Edition:

Book 3:
Author:
Title:
Publisher:
Date of Publication:
Edition: