

College of San Mateo

Course Outline

- New Course
 Update/No change
 Course Revision (Minor)
 Course Revision (Major)

Date: October 27, 2008

Department: Phys

Number: 128

Course Title: Teaching Science III: High School Classroom Experience and Seminar Units: 1

Total Semester Hours: Lecture: 16 Lab: Homework: By Arrangement:

Length of Course

- Semester-long
 Short course (Number of weeks ___)
 Open entry/Open exit

Grading

- Letter
 Pass/No Pass
 Grade Option (letter or Pass/No Pass)

1. **Prerequisite** (Attach Enrollment Limitation Validation Form.)

Completion of Biology or Physics 127.

2. **Corequisite** (Attach Enrollment Limitation Validation Form.)

3. **Recommended Preparation** (Attach Enrollment Validation Form.)

4. **Catalog Description** (Include prerequisites/corequisites/recommended preparation.)

Sixteen lecture hours per term plus one hour per week in high school classroom with a mentor. Investigation of high school teaching careers and requirements for earning a California high school teaching credential; study of California Department of Education standards in science for grades 9-12; development and teaching class lessons in physical and life sciences. Prerequisite: completion of Biology 126 or 127 or Physics 126 or 127. Same as Physics 128.

5. **Class Schedule Description** (Include prerequisites/corequisites/recommended preparation.)

Seminar in teaching science to high school students in California. Investigation of high school teaching careers and requirements for earning a California high school teaching credential; study of California Department of Education standards in science for grades 9-12; development and teaching class lessons in physical and life sciences. 2 hours per week in high school classroom with a mentor teacher is required. Prerequisite: completion of Biology 127 or Physics 127. Same as Biol 128.

6. **Student Learning Outcomes** (Identify 1-6 expected learner outcomes using active verbs.)

Upon successful completion of the course, the student will be able to:

1-describe California Department of Education standards in science for high school (grades 9-12), with specific examples in one grade, 2-explain how to approach designing a classroom science lesson for high school, 3-describe classroom behavior and expectations for high school science classes

7. **Course Objectives** (Identify specific teaching objectives detailing course content and activities. *For some courses, the course objectives will be the same as the student learning outcomes. If this is the case, please simply indicate this in this section).*

Same as Student Learning Outcomes

8. **Course Content** (Brief but complete topical outline of the course that includes major subject areas [1-2 pages]. Should reflect all course objectives listed above. In addition, you may attach a sample course syllabus with a timeline.)

I. Introduction to course requirements, mentor and student responsibilities
II. Lecture & internet research on Teaching careers, credential preparation
III. Lecture and internet research on California Department of Education science standards grades 9-12
IV. Lecture on middle school teaching strategies for different learning styles
V. Lecture and workshop: basics behind standards in physical sciences grades 9-12
Class project: lesson development in physical sciences
Lecture: basics behind standards in life sciences grades 9-12
Class project: lesson development in life sciences
VI. Students evaluate class lessons, mentor teacher reports
Student summaries of journals

9. **Representative Instructional Methods** (Describe instructor-initiated teaching strategies that will assist students in meeting course objectives. Include examples of out-of-class assignments, required reading and writing assignments, and methods for teaching critical thinking skills.)
If hours by arrangement are required by this course, indicate the additional instructional activity which will be provided during this time.

There will be some instructor lectures and some guest presentations; instructor-directed internet research and discussion by students; informal presentations by students followed by discussions of teaching experiences results of research into standards; group work led by instructors with mentor teacher participation, students will prepare science lessons for the high school classroom; students will practice teaching lessons to the class.

10. **Representative Methods of Evaluation** (Describe measurement of student progress toward course objectives. Courses with required writing component and/or problem-solving emphasis must reflect critical thinking component. If skills class, then applied skills.)

Students will investigate assigned topics and complete written homework assignments (SLO 1); students will keep journals of their classroom experiences; students will write up their lesson plans (SLO 2);mentors will complete student evaluations (SLO 3).

11. **Representative Text Materials** (With few exceptions, texts need to be current. Include publication dates.)

Web-based references, including California State Department of Education publications, and materials provided by mentor teachers, will be used in place of a textbook.

Prepared by: _____
(Signature)

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Submission Date: _____