

College of San Mateo
Official Course Outline

1. **COURSE ID:** PHYS 128 **TITLE:** Teaching Science III: High School Classroom Experience and Seminar
Units: 1.0 units **Hours/Semester:** 16.0-18.0 Lecture hours; and 32.0-36.0 Homework hours
Method of Grading: Letter Grade Only
Prerequisite: BIOL 126 or 127 or PHYS 126 or 127

2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: CSU
AA/AS Degree Requirements:
 CSM - GENERAL EDUCATION REQUIREMENTS: E5d. Career Exploration and Self-Development

3. **COURSE DESCRIPTIONS:**
Catalog Description:
 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. Same as BIOL 128.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
 Upon successful completion of this course, a student will meet the following outcomes:
 1. Describe California Department of Education and Common Core 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

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
 Upon successful completion of this course, a student will be able to:
 1. Describe California Department of Education and Common Core standards in science for high school (grades 9-12), with specific examples in one field of science.
 2. Explain how to approach designing a classroom science lesson for high school.
 3. Describe classroom behavior and expectations for high school science classes.

6. **COURSE CONTENT:**
Lecture Content:
 1. Introduction to course requirements, mentor and student responsibilities
 2. Lecture and internet research on Teaching careers, credential preparation
 3. Lecture and internet research on California Department of Education and Common Core science standards grades 9-12
 4. Lecture on middle school teaching strategies for different learning styles
 5. Lecture and workshop: basics behind standards in physical sciences grades 9-12
 - A. Class project: lesson development in physical sciences
 - B. Lecture: basics behind standards in life sciences grades 9-12
 - C. Class project: lesson development in life sciences
 6. Students evaluate class lessons, mentor teacher reports
 - A. Student summaries of journals

7. **REPRESENTATIVE METHODS OF INSTRUCTION:**
 Typical methods of instruction may include:
 - A. Directed Study
 - B. Discussion
 - C. Field Experience
 - D. Guest Speakers
 - E. Other (Specify): A. The class is seminar format, with instructor-led discussions and some guest presentations; instructor-directed internet research and discussion by students; informal presentations by students followed by discussions of teaching experiences and results of research into standards; students will report on preparation and delivery of science lessons for the elementary school classroom; students have field experience in mentor's high school classroom.

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Students complete a journal with entries after each class meeting and after each visit to mentor's classroom.
Students complete mentor and course evaluations.

Reading Assignments:

Students read online sources to prepare presentations on Common Core and State Science standards for high school science classrooms.

Other Outside Assignments:

Students present Common Core background and standards for certain disciplines and high school grade levels.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Oral Presentation
- C. Portfolios
- D. Students will investigate assigned topics and give oral presentation to the class (SLO 1); students will keep journals of their classroom experiences and share their experiences with the class (SLO 2); mentors will complete student evaluations (SLO 3).

10. REPRESENTATIVE TEXT(S):

Other:

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

Origination Date: August 2016

Curriculum Committee Approval Date: December 2016

Effective Term: Fall 2017

Course Originator: Mohsen Janatpour