

College of San Mateo
Official Course Outline

1. **COURSE ID:** PHYS 127 **TITLE:** Teaching Science II: Middle 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: one college level course in Physics or Chemistry or Biology

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 middle school teaching careers and requirements for earning a California middle school teaching credential; study of California Department of Education standards in science for grades 6, 7, 8; development and teaching class lessons in physical and life sciences. Same as BIOL 127.

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 middle school (grades 6, 7, 8), with specific examples in one grade
2. Explain how to approach designing a classroom science lesson for middle school
3. Describe classroom behavior and expectations for middle 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 middle school (grades 6, 7, 8), with specific examples in one grade
2. Explain how to approach designing a classroom science lesson for middle school
3. Describe classroom behavior and expectations for middle school science classes

6. **COURSE CONTENT:**

Lecture Content:

1. Introduction to course requirements, mentor and student responsibilities
2. Lecture & internet research on Teaching careers, credential preparation
3. Lecture and internet research on California Department of Education Common Core science standards grades 6, 7, 8
4. Lecture on middle school teaching strategies for different learning styles
5. Lecture and workshop: basics behind standards in physical sciences grades 6, 7, 8
 - A. Class project: lesson development in physical sciences
 - B. Lecture: basics behind standards in life sciences grades 6, 7, 8
 - 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. Other (Specify): 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 middle school classroom; students have field experience in mentor middle 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 middle school 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 middle school classrooms.

Other Outside Assignments:

Students present Common Core background and standards for certain disciplines and grades levels in middle school classes.

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: June 2016

Curriculum Committee Approval Date: December 2016

Effective Term: Fall 2017

Course Originator: Mohsen Janatpour