FRESNO PACIFIC UNIVERSITY
CENTER FOR PROFESSIONAL DEVELOPMENT

Independent Studies Course Syllabus

Course Number: SCI 905A Classroom Science, Earth Science (Methods and Activities, Grades K-12)

Instructor: Marvin Harms

Contact Information

Phone: 559-222-7384
E Mail: harmsmarvin@yahoo.com
Web page: www.hands-on-experiments.com

Number of Units: Three

Course Description
This methods course is designed to see how the study of Earth Science is used to enrich the science programs. The participants are required to complete and evaluate a planned series of experiments and/or experiences with their students. This course is in alignment with the California State and National Science Standards. Common Core State Standards for Literacy in History/Social Studies, Science, and Technical Subjects are included in lesson plans and assignments. All of these experiments and/or experiences may be used with children in the classroom, home, and/or neighborhood.

Course Dates

This course is self-paced; students may enroll at any time and take up to one year to complete assignments. (Three week minimum)

Course Materials:

All of the materials are found online.

Moodle Site

Students will be required to work in the Moodle environment. For those students who do not have access to a Moodle site on a school or district server, free options are provided.

Technology Requirements (For online courses)

In order to successfully complete the course requirements, course participants will need Internet access, be able to send and receive email, know how to manage simple files in a word processing program, and have a basic understanding of the Internet.

Please remember that the instructor is not able to offer technical support. In the event that you need technical support, please contact your Interned Service Provider.

If you need help logging on to the Moodle site, contact The Help Desk at Fresno Pacific University by telephone 1 559 453 3410 or by email helpdesk@fresno.edu.

Course Requirements

1. The teacher is to do 15 experiments and/or experiences with his/her class. Teacher evaluation sheets are included for the teacher to make an evaluation of the material presented in each experiment. The Teacher Evaluation sheets must be returned with the other required materials at the end of this class. Teacher Evaluation sheets are not required for the experiences.
2. The teacher may write experiments of her/his own. Send the completed experiments along with other required materials at the end of this class.
3. The teacher is to list the State and/or National Science Standards and Common Core Literacy Standards in Science that were met teaching each experiment on the appropriate teacher evaluation sheet.
4. Write a one-page report describing how this class enhanced your curriculum.

Content Standards:

1. That the Earth is composed of land, air and water
2. That changes in weather occur day to day and over seasons affecting earth and inhabitants.
3. Students will learn about objects in terms of physical properties.
4. Students will be able to compare and sort common objects based on ones physical attribute.
5. Students will learn how to observe and describe similarities and differences in appearance and behavior of rocks and minerals.
6. Students will learn how to identify major types of rocks and minerals.
7. Students will know how rock, water, and soil provide many resources, including food, fuel and building materials, that humans use.
8. Students will know how objects can be described in terms of material. How to identity resources from the earth.

Students will learn how changes on the earth can be observed.

http://corestandards.org/the-standards Download Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects. Go to pages 60 - 66 to see the Common Core Standards for

this Class.

Primary Learning Outcomes

1. Teachers who take this course will know how to make science learning relevant to daily life.
2. Teachers will know how to effectively present the study of Earth Science in a variety of situations.
3. Teachers will be able to articulate how the State and/ or National Science Standards were met using this material.
4. Teachers will be able to analyze the differences of rocks and minerals.
Teachers will be able to see a process on how to teach this material effectively.

Schedule of Topics and Assignments

Take a look at the curriculum required by your district. Perform the experiments and/or experiences included in this course that are appropriate to meet the needs of your district. By doing the experiments and/or experiences, you will be able to become more proficient in your ability to communicate with your students, parents, fellow teachers and administration.
Experiments and/or experiences are designed with the busy life of a teacher in mind. The experiments are designed to give you a basic format from which to develop the concepts. The Forums are designed so that you may evaluate your teaching strategy. "Built into the course requirements, are several contacts between the course instructor and the student. Questions are addressed and assistance is offered through these contacts between the instructor and student following the posting of each Forum."

On-track students – (Teachers with students) choose 15 Experiments from the materials included with this course and present them to your class or a group of students. Complete 15 Forums based on the Experiments taught. Check the complete assignment list on the Grading Rubric.

Off-track students - (Teachers without students) review 30 Experiments using the Forum prompt for that particular Experiment. You do not need to actually present these Experiments to students. Check the complete assignment list on the Grading Rubric. (Contact your course instructor via phone or e-mail to discuss three of the lessons you have reviewed.) Upon completion of your Forum assignments, your instructor will contact you via phone or e-mail to discuss your work. Responses will be made by the Instructor each day that posts are made.

Evidence of Learning

Instructor will assess student's learning based on evaluation of work submitted by students based on class participation, reflective writing, and criteria established for each assignment and/or experiment or experience.

Grading and Rubrics

Grades will be assigned based on points earned during the course. Grades will be given on the following basis: A=99-110 points, B=88-98 points. For a credit grade you must have at least 88 points.

Submitting the Grade Form

The Grade Form is to be completed online. Look on the left of the top page and you will see Grade Form under Administration, and a login button. If you have not created a login account, you will need to do so. http://ce.fresno.edu.

Instructor/Student Contact

Built into the course requirements, are several contacts between the course instructor and the student. Questions are addressed and assistance is offered through these contacts between the instructor and student. These contacts are confirmed when the Student goes online and posts the assignments.

Online Courses

Throughout the course students will be communicating with the instructor on a regular basis through the use of Forums. In addition, students are encouraged to email the instructor at any time. Students will also receive feedback on the required assignments as they a resubmitted. I will contact the student within twenty four hours after they have posted an assignment.

Policy on Plagiarism

All people participating in the educational process at Fresno Pacific University are expected to pursue honesty and integrity in all aspects of their academic work. Academic dishonesty, including plagiarism, will be handled according to the procedures set forth in the Fresno Pacific University Catalog.

Alignment to Fresno Pacific University Desired Student Outcomes: Graduate level course work reflects Fresno Pacific University's Desired Student Learning Outcomes as it applies to professional development to demonstrate the following:

• Oral and written communication individual and group settings.

• Content knowledge, and application of such knowledge in the student's area of interest to affect change.

• Reflection for personal and professional growth.

• Critical thinking.

• Cultural and global perspectives to understand complex systems.

• Computational/methodological skills to understand and expand disciplines, including an understanding of technological systems"

SCI 905A Earth Science
Last updated 11/25/11