

Course Description

A. COVER PAGE

Date of Submission (Please include Month, Day and Year)	
1. Course Title Earth Science A/B (P)	9. Subject Area <input type="checkbox"/> History/Social Science <input type="checkbox"/> English <input type="checkbox"/> Mathematics <input checked="" type="checkbox"/> Laboratory Science <input type="checkbox"/> Language other than English <input type="checkbox"/> Visual & Performing Arts <input type="checkbox"/> Intro <input type="checkbox"/> Advanced <input type="checkbox"/> College Prep Elective
2. Transcript Title(s) / Abbreviation(s) Earth Sci A (P), Earth Sci B (P)	
3. Transcript Course Code(s) / Number(s) SC 1032 and SC 1033	
4. School Pioneer Valley High	
5. District Santa Maria Joint Union High School District	
6. City Santa Maria	10. Grade Level(s) for which this course is designed <input checked="" type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12
7. School / District Web Site www.smjuhsd.org	11. Seeking "Honors" Distinction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. School Course List Contact Name: Lee Davis Title/Position: Assistant Principal Phone: 805-922-1305 Ext.: 5703 E-mail: ldavis@Smjuhsd.org	12. Unit Value <input type="checkbox"/> 0.5 (half year or semester equivalent) <input checked="" type="checkbox"/> 1.0 (one year equivalent) <input type="checkbox"/> 2.0 (two year equivalent) <input type="checkbox"/> Other: _____
13. Is this an Internet-based course? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", who is the provider? <input type="checkbox"/> UCCP <input type="checkbox"/> PASS/Cyber High <input type="checkbox"/> Other	
14. Complete outlines are not needed for courses that were previously approved by UC. If course was previously approved, indicate in which category it falls. <input type="checkbox"/> A course reinstated after removal within 3 years. Year removed from list? _____ Same course title? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, previous course title? _____ <input type="checkbox"/> An identical course approved at another school in same district. Which school? _____ Same course title? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, course title at other school? _____ <input type="checkbox"/> Year-long VPA course replacing two approved successive semester courses in the same discipline <input type="checkbox"/> Approved Advanced Placement (AP) or International Baccalaureate (IB) course <input type="checkbox"/> Approved UC College Prep (UCCP) Online course <input type="checkbox"/> Approved CDE Agricultural Education course <input type="checkbox"/> Approved P.A.S.S./Cyber High course <input type="checkbox"/> Approved ROP/C course. Name of ROP/C? _____ <input type="checkbox"/> Approved A.V.I.D. course <input type="checkbox"/> Approved C.A.R.T. course <input type="checkbox"/> Approved Project Lead the Way course <input type="checkbox"/> Other. Explain: _____	

<p>15. Is this course modeled after an UC-approved course from another school <u>outside</u> your district? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If so, which school(s)? <u> n.a. </u></p> <p>Course title at other school <u> n.a. </u></p>
<p>16. Pre-Requisites</p> <p>None</p>
<p>17. Co-Requisites</p> <p>None</p>
<p>18. Is this course a resubmission? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, date(s) of previous submission? <u> n.a. </u></p> <p>Title of previous submission? <u> n.a. </u></p>
<p>19. Brief Course Description</p> <p>The purpose of this class is to provide a general overview of earth science. The topics to be studied include global phenomena, such as earthquakes, global winds, and ocean currents. In addition to these topics, geology, earth's energy and astronomy will be explored. This class will include reading assignments, hands-on projects and activities that will stimulate an interest and understanding of these scientific subjects. Receiving a passing grade for both terms meets the physical science requirement for graduation.</p>

B. COURSE CONTENT

20. Course Goals and/or Major Student Outcomes

Analyze evidence that supports or refutes hypotheses and scientific theories, then draw conclusions, and communicate findings orally and in writing.

21. Course Objectives

Students will investigate plate tectonic processes that have changed the patterns of land, sea, and mountains on Earth's surface over geologic time.

Students will interpret California geology and its relationship to the state's wealth of natural resources and to its natural hazards.

Students will sequence the movement of matter in the Earth system within and among organisms and reservoirs through biogeochemical cycles.

Students will analyze ways in which life has changed Earth's atmosphere and ways that changes in the atmosphere affect conditions for life.

Students will model the transfer of solar radiation into and within the Earth system.

Students will examine astronomical evidence that proves the structure and scale of the universe, galaxies, solar system, and stars change over time.

22. Course Outline

I. Earth Science A

A. "Toolbox" and Introduction

1. The nature of science
 - a. scientific methods
 - b. scientific theories and scientific laws
2. Matter
 - a. atoms
 - b. combinations of atoms
 - c. properties of matter
3. Topographic maps

B. Earth's Energy

1. Earth's energy and mineral resources
 - a. nonrenewable energy sources
 - b. renewable energy sources
2. Atmosphere
 - a. structure of Earth's atmosphere
 - b. energy transfer in Earth's atmosphere
 - c. air movement
3. Climate
 - a. What is climate?
 - b. climate types
 - c. climatic changes
4. Oceans
 - a. ocean water
 - b. ocean currents
5. Uses of minerals
 - a. the rock cycle
 - b. mineral resources

II. Earth Science B

A. The Solid Earth

1. Plate Tectonics
 - a. continental drift
 - b. seafloor spreading
 - c. theory of plate tectonics
 - d. the seafloor
2. Earthquakes
 - a. forces inside Earth
 - b. people and earthquakes
3. Volcanoes
 - a. volcanoes and Earth's moving plates
 - b. types of volcanoes

B. Astronomy and cosmology

1. Radiation from space
2. The solar system
 - a. inner, terrestrial planets
 - b. outer, gas planets
 - c. other objects in the solar system
3. Stars and galaxies
 - a. absolute and apparent magnitude
 - b. surface features of the Sun
 - c. classifying stars
 - d. galaxies and the universe

23. Texts & Supplemental Instructional Materials

Earth Science, Glencoe/McGraw-Hill, Columbus, Ohio, 2005.

Student Edition ISBN 0-07-861700-6

Teacher Wraparound Edition ISBN 0-07-861701-4

Teacher Works CD ROM ISBN 0-07-866674-0

Color Transparencies ISBN 0-07-866968-5

Reading Essentials ISBN 0-07-866970-7

Laboratory Activities Manual, Teacher Edition, ISBN 0-07-866967-7

Study Guide and Reinforcement, Student Edition, ISBN 0-07-866972-3

Study Guide and Reinforcement, Answer Key, ISBN 0-07-866973-1

Content Outline for Teaching, ISBN 0-07-866963-4

Glencoe Science, Professional Series

Guide to Using the Internet in the Science Classroom, ISBN 0-07-825456-6

Performance Assessment in the Science Classroom, ISBN 0-07-825453-1

Cooperative Learning in the Science Classroom, ISBN 0-07-825455-8

ELL Strategies for Science in the Science Classroom, ISBN 0-07-829661-7

Home and Community Involvement in the Science Classroom, ISBN 0-07-825457-4

Glencoe Science

Probeware Lab Manual, Teacher Edition, ISBN 0-07-830382-6

Science Inquiry Lab Manual, Teacher Edition, ISBN 0-07-867838-2

Reading and Writing Skill Activities, Teacher Edition, ISBN 0-07-825448-5

Critical Thinking/Problem Solving, ISBN 0-07-825411-6

Mathematics Skill Activities, Teacher Edition, ISBN 0-07-825450-7

Cultural Diversity Activities for the Science Classroom, ISBN 0-07-825451-5

24. Key Assignments

Laboratory investigations

Lab reports

Model construction

Formal common assessment

Research project

Homework

vocabulary

25. Instructional Methods and/or Strategies

direct instruction/lecture

Demonstrations

Data collection and analysis

Collaborative groups

Student-centered learning

Problem-solving labs and activities

Graphic organizers

Observation of models

Power Point presentations

Reading

Video

26. Assessment Methods and/or Tools

Formal common assessment—multiple choice

Chapter and/or unit tests—multiple choice, fill-in, short answer, make and label diagrams, lab practical

C. HONORS COURSES ONLY

Please refer to instructions

27. Indicate how this honors course is different from the standard course.

D. OPTIONAL BACKGROUND INFORMATION

Please refer to instructions

28. Context for Course (optional)

29. History of Course Development (optional)