

NEW COURSE PROPOSAL**Courses must be submitted by November 9, 2007, to make the next catalog production**DATE (*Change if modified*)

10/15/2007 REV 12.14.07

PROGRAM AREA(S)

EDUCATION

1. Catalog Description of the Course. *[Follow accepted catalog format.]***Prefix(es)** (Add additional prefixes if cross-listed) **EDAP Course No. 429****Title: TEACHING SCIENCE IN ELEMENTARY SCHOOLS Units: 3**☒ Prerequisites Admission to the Multiple Subject Accelerated Program☐ Corequisites☐ Consent of Instructor Required for Enrollment**Description** (Do not use any symbols): **Studies the application of methods for teaching physical, life and earth science to K-8 students based on research and theory. Integrates needs of English Language Learners, exceptional children, and technology for teaching and learning.****Grading Scheme:**☒ A-F Grades☐ Credit/No Credit☐ Optional (Student Choice)**Repeatability:**☐ Repeatable for a maximum of units

Total Completions Allowed

☐ Multiple Enrollment in Same Semester**Lab Fee Required:** ☐**Mode of Instruction/Components** (*Hours per Unit are defaulted.*)

	Units	Hours per Unit	Benchmark Enrollment	Graded Component	CS & HEGIS # (Filled in by the Dean)
Lecture	3	1	25	☒	
Seminar				☐	
Laboratory				☐	
Activity				☐	
Field Studies				☐	
Indep Study				☐	
Other Blank				☐	

The following two lines will be filled out internally based on the Mode of Instruction data directly above.

3 hours lecture per week (*Use 2nd line only if necessary*)

hours blank per week

Course Attributes:☐ **General Education Categories:** All courses with GE categories notations (including deletions) must be processed at the GE website: <http://summit.csuci.edu/geapproval>. Upon completion, the GE Committee will forward your documents to the Curriculum Committee for further processing.**A (English Language, Communication, Critical Thinking)**A-1 Oral Communication ☐A-2 English Writing ☐A-3 Critical Thinking ☐**B (Mathematics, Sciences & Technology)**B-1 Physical Sciences ☐B-2 Life Sciences – Biology ☐B-3 Mathematics – Mathematics and Applications ☐B-4 Computers and Information Technology ☐**C (Fine Arts, Literature, Languages & Cultures)**C-1 Art ☐C-2 Literature Courses ☐C-3a Language ☐C-3b Multicultural ☐**D (Social Perspectives)** ☐

E (Human Psychological and Physiological Perspectives) ☐

UDIGE/INTD Interdisciplinary ☐

Meets University Writing Requirement ☐

Meets University Language Requirement ☐

☐ American Institutions, Title V Section 40404: ☐ Government ☐ US Constitution ☐ US History
Refer to website, Exec Order 405, for more information: <http://senate.csuci.edu/comm/curriculum/resources.htm>
☐ Service Learning Course

3. Justification and Requirements for the Course. (Make a brief statement to justify the need for the course)

A. Justification: Required course designed to meet subject matter content preparation for students in the proposed Multiple Subject Integrated Program - a combination of a Liberal Studies Bachelor's degree and Multiple Subject Teaching Credential coursework.

B. Degree Requirement: ☒ Requirement for the Major/Minor
☐ Elective for the Major/Minor

Note: Submit Program Modification if this course changes your program.

4. Learning Objectives. (Bullets, will occur upon carriage return)

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

Students who successfully complete this course will be able to:

1. Write appropriate goals and measurable objectives for science lessons and units.
2. Apply various teaching strategies.
3. Use a variety of authentic assessment strategies in their lessons.
4. Utilize modern science education learning theories in developing a curriculum unit.
5. Create concept maps for science content.
6. Describe instructional accommodations made for English Learners and special needs candidates.
7. Infuse technology into their instructional planning.

5. Course Content in Outline Form. [Be as brief as possible, but use as much space as necessary]

Nature of science
Multicultural science education diversity (English Language Learner and Special Needs)
Content knowledge in science
Concept mapping & the California frameworks
Science education standards: Goals and objectives in teaching science and health
Process skills in science teaching
Inquiry and exploration in teaching science
The learning cycle
Learning theorists and previous knowledge
Unit planning in science scope and sequence
Authentic science assessment and student learning
Hypotheses generating and experiment design
Teaching for conceptual understanding
Technology in science teaching.

Does this course overlap a course offered in your academic program? YES ☒ NO ☐

If YES, what course(s) and provide a justification of the overlap? Overlaps with EDMS 529. EDMS 529 is a course in pedagogy of science, health, and PE for elementary preservice teachers who have completed a BA and are taking a graduate level course in pedagogy. EDAP 429 integrates science subject content knowledge with pedagogy and is designed for undergraduate students.

Does this course overlap a course offered in another academic area? YES ☐ NO ☒

If YES, what course(s) and provide a justification of the overlap?

Signature of Academic Chair(s) of the other academic area(s) is required on the signature sheet below.

6. Cross-listed Courses (Please fill out separate description in item 1 above, for each PREFIX)

A. List Cross-listed Courses (Signature of Academic Chair(s) of the other academic area(s) is required).

Prefix for cross-listed discipline(s):

B. Department responsible for staffing: Education

7. References. [Provide 3 - 5 references on which this course is based and/or support it.]

California Commission on Teacher Credentialing. (2001). Standards of Quality and Effectiveness for Professional Teacher Preparation Programs. California Commission on Teacher Credentialing.

National Research Council. (1996). The National Science Education Standards. Washington DC: National Academy Press.

- National Research Council. (2000). Inquiry and The National Science Education Standards. Washington DC: National Academy Press.

8. List Faculty Qualified to Teach This Course.

- Education faculty

9. Effective Date

A. First semester offered: Fall 2008

10. New Resources Required. YES ☐ NO ☒

If YES, list the resources needed and obtain signatures from the appropriate programs/units on the sheet below.

A. Computer (data processing), audio visual, broadcasting needs, other equipment)

B. Library needs

C. Facility/space needs

11. Will this new course alter any degree, credential, certificate, or minor in your program? YES ☒ NO ☐

If, YES attach a program modification form for all programs affected.

Catalog deadline for New Minors and Programs (including modifications): October 15, 2007, preceding year.

Catalog deadline for Course Proposals and Modifications: November 9, 2007, of preceding year.

Last day to submit any work to be considered for the academic year: April 15th.

Robert Bleicher, Ph.D, Merilyn Buchanan, Ph.D

Proposer of Course

10/15/2007

Date

Approval Sheet
Program/Course:

Program Chair(s)

Date

Program Chair(s)

Date

General Education Chair(s)

Date

Curriculum Committee Chair(s)

Date

Dean of Faculty

Date