New Course Proposal
Form A

Academic Group (College): Education
Academic Organization (Department): Teacher Education
Date: October 29, 2007

Type of Course Proposal:
New _X_ Change ___ Deletion ___

Department Chair:
Robert Pritchard

Submitted by:
Daniel Clark Orey

Does this course fulfill a requirement for single subject or multiple subject credential students?
Yes ___ No _X_

For Catalog Copy: Yes _X_ No ___

CCE (Extension): Yes ___ No _X_

Semester Effective:
Fall _X_ Spring ___, 2008

Change from:

Subject Area (prefix) & Catalog Nbr (course no.): Title: Units: 

Change to:

Subject Area (prefix) & Catalog Nbr (course no.): Title: Math Practices Across Cultures Units: 3

JUSTIFICATION:

Skills covered in this course include: mathematical thought and practices; culture and its relation to mathematics; mathematics and an individual’s worldview. The course explores how one may influence the other. As well the course looks at how mathematics is learned and used in diverse contexts. The specific mathematical topics include: mathematics education; mathematics history; ethnomathematics; quantitative reasoning; problem solving; numbering and diverse systems of organization; geometry and art; perceptions of time and space; mathematics of diverse traditions and peoples. These skills will promote interest in mathematics and science and lead students to consider a career in teaching.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See http://www.csus.edu/acaf/univmanual/crspsl.htm - Guidelines for Catalog Course Description)

This course offers an introduction to diverse mathematical thought, action and practices across cultures. Mathematics will be seen from a diversity of contexts. Learners will consider how diverse contexts and traditions both reflect a culture's heritage and worldview and influence the mathematics learned and used. Topics covered include: ethnomathematics, mathematical modeling, and cultural connections in relation to diverse forms of quantitative reasoning, problem solving, numbering, systems of organization, perceptions of time and space as experienced by diverse traditions and peoples.

Note:

Prerequisite: none
Enforced at Registration: Yes ___ No _X_

Corequisite:
Enforced at Registration: Yes ___ No _X_

CAN (California Articulation Number):

Graded: Letter _X_ Credit/No Credit ___

Instructor Approval Required? Yes _X_ No ___

Course Classification (e.g., lecture, lab, seminar, discussion):
lecture, lab

Title for CMS (not more than 30 characters)
Math Practices Across Cultures

Cross Listed?
Yes ___ No _X_

If yes, do they meet together and fulfill the same requirement, and what is the other course.

How Many Times Can This Course be Taken for Credit? ___01___

Can the course be taken for Credit more than once during the same term? Yes ___ No _X_
FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: “Students will be able to: 1), 2), etc.” See the example at http://www.csus.edu/acaf/example.htm

At the end of this course students will:

1) Interview one recently arrived immigrant adolescent from a culture other than one’s own about how they learned and do basic calculation.
   a) Students will report back on the findings
   b) Students will learn how to calculate arithmetically using more than three different algorithms

2) Distinguish how the activity that we have come to equate with “mathematics” is much more than that found in our own traditional academic in-school discipline and experience

3) Demonstrate a basic understanding of the basic concepts of ethnomathematics, as the intersection of mathematics, cultural anthropology and mathematical modeling

4) Demonstrate a basic understanding and use of aspects of mathematical modeling that allows us to document “out of school” mathematical activity as well as use it to connect to the world around us.
   a) In so doing the student will develop one math activity, report back on the findings for placement on the Sacramento State Math Trail website

Pass both a cumulative midterm and final exam related to overall progress in the course and readings.

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean’s office, not Academic Affairs.

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

- 2 + 2 Daily Student Course Reflection
- 2 Assignments (papers)
- 2 Projects (one group project, one individual)
- Midterm
- Final

For whom is this course being developed?

Majors in the Dept ___ Majors of other Depts ___ Minors in the Dept ___ General Education ___X___ Other ___

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes ___ No ___X___

If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes ___ No ___X___

If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). ____________________________

The Department Chair’s signature below indicates that affected programs have been sent a copy of this proposal form.
**Signatures:**

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<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Department Chair</td>
<td>[Signature]</td>
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<td>College Dean or Associate Dean</td>
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<td>CPSP (for school personnel courses ONLY)</td>
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<td>Associate Vice President and Dean for Academic Programs</td>
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**Distribution:** Academic Affairs (original), Department Chair and College Dean. Dean's office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.