

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA: SINGLE SUBJECT TEACHING CREDENTIAL

- 1. Catalog Description of the Course.** *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

EDSS 541. TEACHING MATHEMATICS IN SECONDARY SCHOOLS (3)

Three hours of lecture/discussion a week.

Prerequisite: Must be officially admitted to the Single Subject Credential Program.

Co-Requisite: EDSS 580 (1-2 units) or EDSS 585

A study of content, methodology, materials and current research in teaching secondary mathematics courses. Focuses on the curricular framework of mathematics as appropriate for high school courses. Emphasizes reflective practice based on California Standards for the Teaching Profession and the use and alignment of curricula to the Academic Content Standards for California Public Schools. Includes an emphasis on teaching in multicultural, multilingual and inclusive classrooms.

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	___3___	___1___	___20___
Seminar	_____	_____	_____
Laboratory	_____	_____	_____
Activity	_____	_____	_____

- 3. Justification and Learning Objectives for the Course.** (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

This is a required course for students seeking a Single Subject Credential in Mathematics.

Through this course, students will be able to

- Identify important issues of modern secondary mathematics curriculum
- Align lessons and lesson plans to the California State Academic Content Standards
- Apply effective teaching techniques to the instruction of high school mathematics content
- Recognize and utilize effective problem-solving strategies in the high school mathematics curriculum and to integrate it into all content area topics
- Discuss pedagogy and demonstrate teaching methods for various student levels and a diverse student population in high schools
- Use modern technology and mathematics software in the classroom
- Develop a variety of means of evaluating student needs and student learning.

- 4. Is this a General Education Course** **YES** **NO**

If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

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

- History of Mathematics
- Mathematics from a Multicultural Perspective
- Teaching Mathematics to Diverse Learners
- Assessment in Mathematics Education
- Technology in the Secondary Mathematics Curriculum
- Mathematics as Problem Solving
- Teaching High School Mathematics Content

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

National Council of Teachers of Mathematics (2000). *Principles and Standards for School Mathematics* (PSSM). Reston, VA: NCTM. On reserve in the Science Library.

National Council of Teachers of Mathematics Website: www.nctm.org

Handbook of Research on Mathematics Teaching and Learning, NCTM, D. Grouws (Ed), Macmillan Publishing Co., (1992).

7. List Faculty Qualified to Teach This Course.

Faculty with mathematics education background and experience.

8. Frequency.

a. Projected semesters to be offered: Fall Spring Summer

9. New Resources Required.

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

none

b. Library needs

none

c. Facility/space needs

none

10. Consultation.

Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

Jeanne Grier & Merilyn Buchanan in consultation Ivona Grzegoczyk Jan 9, 2003

Proposer of Course

Date

Approvals

Program Coordinator

Date