CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by November 9, 2007, to make the next catalog production

DATE (CHANGE DATE IF REVISED): 11.8.07
PROGRAM AREA(S): MATH

1. Catalog Description of the Course. [Follow accepted catalog format.]
(If Cross-listed please submit prefixes for each discipline being modified)

OLD
Prefix MATH  Course# 451  Title Complex Analysis  Units (3)
3 hours lecture per week
hours blank per week

Prerequisites: MATH 250
Corequisites:
Description (Do not use any symbols):
Topics include: complex variables, analytic functions, complex integration, power series and conformal mappings.

NEW
Prefix MATH  Course# 451  Title Complex Analysis  Units (3)
3 hours lecture per week
hours blank per week

Prerequisites: MATH 240 and MATH 250
Corequisites:
Description:
Topics include: complex variables, analytic functions, complex integration, power series and conformal mappings.

Gen Ed Categories
CR/NC Repeatable for up to
Lab Fee Required
Optional Hegis Code
Enrollment in same semester
Mission Based Learning Objectives:
Interdisciplinary
International
Multicultural
Service Learning
American Institutions, Title V Section 40404:
Government
US Constitution
US History (Refer to EO 405, for more information at: http://senate.csuci.edu/comm/curriculum/resources.htm
Service Learning Course

2. Mode of instruction (Hours per Unit are set for you)

<table>
<thead>
<tr>
<th>Existing</th>
<th>Proposed</th>
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<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
</tr>
<tr>
<td>Seminar</td>
<td>1</td>
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<tr>
<td>Laboratory</td>
<td>24</td>
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<tr>
<td>Activity</td>
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<tr>
<td>Field Studies</td>
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<td>Indep Study</td>
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<td>Other blank</td>
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3. Course Content in Outline Form if Being Changed. [Be as brief as possible, but use as much space as necessary]

OLD
The course is a required course for Mathematics majors.

NEW
The course is a required course for Mathematics majors.
Through this course, students will be able to
· Discuss the theoretical basis of the system of complex numbers
· Apply complex functions to problem solving
· Analyze complex functions in terms of continuity, differentiability and integrability.
· Demonstrate application of complex analysis on an advanced level.
· Express concepts and techniques of Complex Analysis in oral and written form.

This course is not designed to satisfy the University Writing or Language requirements.

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

OLD E. B. Saff and A. D. Snider, Fundamentals of Complex Analysis, 3rd Edition

NEW E. B. Saff and A. D. Snider, Fundamentals of Complex Analysis, 3rd Edition

6. Indicate Changes and Justification for Each. [Check all that apply and follow with justification. Be as brief as possible but, use as much space as necessary.]

☐ Course title
☐ Prefix/suffix
☐ Course number
☐ Units
☐ Staffing formula and enrollment limits
☒ Prerequisites/corequisites
☐ Catalog description
☐ Course content
☐ References
☐ GE
☐ Other

Justification: Students in this course are expected to prove theorems on their own. Without the additional prerequisite of Math 240 Linear Algebra, it is possible for students to enter this course without having developed proof skills. Math 240 Linear Algebra develops proof skills that students need to succeed in Math 451 Complex Analysis.

7. ☐ 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
8. New Resources Required. YES ☐ NO ☒
   If YES, list the resources needed and obtain signatures from the appropriate programs/units on the consultation sheet below.
   a. Computer (data processing), audio visual, broadcasting needs, other equipment
   b. Library needs
   c. Facility/space needs

9. Will this course modification alter any degree, credential, certificate, or minor in your program? YES ☐ NO ☒
   If YES attach a program modification form for all programs affected.

10. Effective Date (Semester and Year – all modifications submitted prior to November 9th will be effective in the Fall 2008 catalog): Fall 2008

Geoffrey Buhl ___________________________   10/2/07
Proposer of Course Modification                Date
Approvals
Program/Course: Math 451

_________________________________________________________
Program Chair(s)     Date

_________________________________________________________
General Education Chair(s)     Date

_________________________________________________________
Curriculum Committee Chair(s)     Date

_________________________________________________________
Dean of Faculty     Date