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 REV 12.4.07
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# 300 Title Discrete Mathematics Units (3)
3 hours lecture per week

NEW
Prefix MATH Course# 300 Title Discrete Mathematics Units (3)
3 hours lecture per week

Prerequisites: Math 151 and Math 230
Corequisites:
Description (Do not use any symbols):

Topics include: Sets, algebraic systems, axioms, definitions, propositions and proofs. Combinatorics, graph theory, moduli calculus. Coding, coding errors and Hamming codes. Students are expected to write mathematical proofs, and communicate mathematical ideas clearly in written and oral form.

Graded
Gen Ed Categories
Lab Fee Required Hegis Code

ED  -  F

Repeatable for up to
Optional (Student’s choice)
Enrollment in same semester

Mission Based Learning Objectives:
Enrollment in same semester

American Institutions, Title V Section 40404: Government 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>Units 3</td>
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<tr>
<td>Seminar</td>
<td>_______</td>
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<td>Laboratory</td>
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<td>Activity</td>
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<td>Field Studies</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
NEW

4. 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]
The course is a required course for Mathematics and Computer Science majors. Through this course, students will be able to

- Apply the principles of Logic in a formal language
- Discuss the theory and use of Sets
- Compute the number of ways complicated tasks can be performed
- Incorporate applied problems into graph theoretic framework and using this interpretation to solve them.
- Express quantitative ideas 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.]


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: No material from Math 151 Calculus II is required for this course. Completing Math 230 Logic and Mathematical Reasoning provides students with enough mathematical maturity to succeed in Math 300 Discrete Mathematics.

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 300

_________________________________________________________
Program Chair(s)                    Date
_________________________________________________________
General Education Chair(s)          Date
_________________________________________________________
Curriculum Committee Chair(s)       Date
_________________________________________________________
Dean of Faculty                    Date