CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
COURSE MODIFICATION PROPOSAL

Courses must be submitted by November 5, 2007, to make the next catalog production

DATE (CHANGE DATE IF REVISED): OCTOBER 2, 2007 FROM GE 2/20/08
PROGRAM AREA(S): ESRM

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

<table>
<thead>
<tr>
<th>OLD</th>
<th>Prefix ESRM</th>
<th>Course # 328</th>
<th>Title Intro to Geographic Systems</th>
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</thead>
<tbody>
<tr>
<td>Units</td>
<td>3</td>
<td>2 hours lecture per week</td>
<td></td>
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<tr>
<td>3 hours field studies per week</td>
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Prerequisites: ESRM 100 or instructor consent
Corequisites:
Description (Do not use any symbols): Introduction to fundamental concepts and techniques of geographic information systems, including the collection, manipulation, analysis, interpretation, display, and communication of spatial information for environmental decision making. Lab fee required.

Gen Ed Categories B4
Lab Fee Required

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Prerequisites: ESRM 100 or instructor consent
Corequisites:
Description: Introduction to fundamental concepts and techniques of geographic information systems, including the collection, manipulation, analysis, interpretation, display, and communication of spatial information for environmental decision making. Lab fee required.

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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>2</td>
</tr>
<tr>
<td>Seminar</td>
<td>1</td>
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<tr>
<td>Laboratory</td>
<td>3</td>
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<tr>
<td>Activity</td>
<td>2</td>
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<tr>
<td>Field Studies</td>
<td>2</td>
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<td>Indep Study</td>
<td>2</td>
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<tr>
<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
Intro to Geospatial Thinking
ArcGIS Platform
Vector vs Rasters
Dataum and Geospatial Representations
Drawing and Symbolizing Features
Working with Tables
Raster Data

NEW
no change
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]

OLD
By the end of this course, students will be able to:
• Understand the elements of cartography and how spatial information can be communicated through a variety of media;
• Manipulate, analyze, interpret, display, and communicate spatial information in a manner understandable to a target audience;
• Utilize ESRI ArcGIS software to perform common tasks and analyses; and
• Recognize the role of GIS in environmental management and conservation and the relationship between GIS and other spatial technologies (e.g. GPS, remote sensing)

NEW
By the end of this course, students will be able to:
• Understand the elements of cartography and how spatial information can be communicated through a variety of media;
• Manipulate, analyze, interpret, display, and communicate spatial information in a manner understandable to a target audience;
• Utilize ESRI ArcGIS software to perform common tasks and analyses; and
• Recognize the role of GIS in environmental management and conservation and the relationship between GIS and other spatial technologies (e.g. GPS, remote sensing)

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 This is for the B4 computer-related courses

Justification: During our final review of our ESRM program at then end of last year, we were surprised to learn that our GIS course (which has an entire computer lab designed around it in the Bell Tower) is not considered a computer-related GE course. We seek to rectify this by getting B4 approval for this course.
7. **General Education Categories:** All courses with GE categories notations (including deletions) must be processed at the GE website: [http://summit.csuci.edu/geapproval](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)**

   **UD Interdisciplinary**

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
      no additional needs

   b. Library needs
      no additional needs

   c. Facility/space needs
      no additional 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 5th will be effective in the Fall 2008 catalog):** Fall 2008

    Sean Anderson  October 2, 2007
    Proposer of Course Modification  Date
Request for ESRM 328: Introduction to GIS to be added to GE Category B4: Computers and Information Technology.

Committee Response:
Approved by committee on 02-13-2008

Criteria and Justifications Submitted:

- **Promote the understanding and appreciation of the methodologies of math or science as investigative tools and the limitations of mathematical or scientific endeavors**
  This course is about using computers to promote geospatial thinking and promote skills associated with spatial analyses.

- **Present mathematical or scientific knowledge in a historical perspective and the influences of math and science on the development of world civilizations, both past and present**
  This course covers the history of cartography and the challenges representing our planet in 2D on computer screens and paper maps presents. Special attention is paid to the various datum models for the shape of the earth designed to minimize geographic distortion on the surface of the earth.

- **Apply inductive and deductive reasoning processes and explore fallacies and misconceptions in the mathematical or scientific areas**
  Students gather their own data sets as well and work with instructor-provided data to conduct spatial analyses, test hypotheses, calculate geostatistic, and generally explore their world geographically.

- **Include use of computers or information technology to solve problems as appropriate**
  This courses is a computer-based geospatial course...umm, what else is there to say?
## Approvals

**Program/Course:** ESRM328

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<tr>
<th>Position</th>
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