California State University Channel Islands  
New Course Proposal  
Program Areas: Math and Computer Science  
1. **Catalog Description of the Course.**

**Comp 549 HUMAN-COMPUTER INTERACTION (3)**

Three hours lecture in the lab per week.
Prerequisite: Admission to the Computer Science or Mathematics Graduate Program

The design, development and analysis of effective interfaces to computer systems. Trends in graphical user interfaces.

2. **Mode of Instruction.**

<table>
<thead>
<tr>
<th>Units</th>
<th>Hours per Unit</th>
<th>Benchmark Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Seminar</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Laboratory</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Activity</td>
<td>0</td>
<td>0</td>
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3. **Justification and Learning Objectives.**

Justification: This course is an elective for graduate students in MS in Mathematics and MS in Computer Science programs. Increasingly, systems are used by non-computer specialists. Data such as that derived from cells is complex. Graduate-level students should be able to design systems with which it is easy to interact.

Learning Objectives:
1. Be able to design an effective interface to a previously unseen system
2. Be able to analyze the strengths and weaknesses of a system interface
3. Review and compare similar software applications for usability
4. **Is this a General Education Course?**
   No.
5. **Course Content in Outline Form.**

Topics:
1. Human-centered and user-centered design
2. Cognetics and the locus of attention
3. Modes and quasimodes
4. Quantification
5. Unification
6. Navigation
7. Non-user interface issues
8. Interaction with biological data

6. **References.**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Publisher</th>
<th>Year</th>
<th>ISBN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Humane Interface</td>
<td>J. Raskin</td>
<td>Addison-Wesley</td>
<td>2000</td>
<td>0201379376</td>
</tr>
</tbody>
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7. **Faculty Qualified to Teach This Course.**

Qualified Faculty: Volkan,Wolfe

8. **Frequency.**

Projected semesters to be offered: Fall, Spring, Summer

9. **New Resources Required.**
a. New Equipment needs: use of existing computer lab
b. New Library needs: none
c. New Space/Facilities needs: none

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

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

12. Proposer of Course.

P. Smith, Oct 31, 2003

Proposer of Course Date