California State University Channel Islands
New Course Proposal

Program Area: Computer Science

1. Catalog Description of the Course.
   IT 402 ADVANCED IT PROGRAMMING (3)
   Three hours of lecture in the lab per week
   Prerequisites: IT 280
   Covers a variety of programming languages, including java, c, c++, perl, asp, and php. This course focuses on building applications that are useful to IT professionals, such as applications for network security, maintenance and surveillance.

2. Mode of Instruction.

<table>
<thead>
<tr>
<th>Units</th>
<th>Hours per Unit</th>
<th>Benchmark Enrollment</th>
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<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Seminar</td>
<td>0</td>
<td>0</td>
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<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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   Justification: BSIT elective.
   Learning Objectives:
   Student who successfully complete this course will:
   1. Be able to program in unix shell languages such as awk.
   2. Be able to program in web sever scripting languages such as asp, php and perl.
   3. Be able to analyze requirements for an IT software application.
   4. Be able to design IT components into a software application.
   5. Be able to program simple distributed network applications.

4. Is this a General Education Course?
   No.

5. Course Content in Outline Form.
   Topics:
   1. Unix Shell Programming.
   2. Perl Programming.
   5. ASP Programming.
   6. PHP Programming.
   7. JSP Programming.
   8. AWT Programming.

6. Cross-listed Courses.
   None.

7. 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. Unix System Programming (2nd ed)</td>
<td>Haviland, Gray and Salama</td>
<td>Addison-Wesley</td>
<td>1998</td>
<td>0201877589</td>
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<tr>
<td>4. Advanced Perl Programming</td>
<td>Sriram Srinivasan</td>
<td>O'Reilly</td>
<td>1997</td>
<td>1565922204</td>
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</tbody>
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8. Faculty Qualified to Teach This Course.
   Qualified Faculty: Smith, Wolfe

   Projected semesters to be offered: Fall, Spring

10. New Resources Required.
   a. New Equipment needs: Use of existing computer lab.
   b. New Library needs: none
   c. New Space/Facilities needs: none

11. Program Modifications.
   None.

12. Proposer of Course.
   Proposer: Smith, Wolfe  Date: 7/13/2004