Program Certificate in Web Development

Department Computer Science

Number of students enrolled in the program in Fall, 2011 1

Faculty member completing template Jinsong Ouyang, Coordinator of the Web Development Certificate (Date 2/3/2012)

Period of reference in the template: 2006-07 to present

1. Please describe your program’s learning-outcomes trajectory since 2006-07: Has there been a transformation of organizational culture regarding the establishment of learning outcomes and the capacity to assess progress toward their achievement? If so, during which academic year would you say the transformation became noticeable? What lies ahead; what is the next likely step in developing a learning-outcomes organizational culture within the program?

In light of rapidly changing Web technology, the Department of Computer Science at Sacramento State completed revamped Web Development Certificate program in 2006. The updated program provides intensive, hands-on training, and covers the full cycle of the Web development process using the latest Web technologies. Topics such as Blogs and Wikis, E-Commerce and content management systems are covered. Standards-based and open-source technologies, such as PHP, AJAX, .NET, and J2EE are emphasized in the updated program.

The courses in this certificate program (CSC 8/CSC 8s, CSC 22, CSC 80, CSC 120, CSC 121, CSC 122, CSC 123) have been assessed according to the clearly defined learning-outcomes of each course. The courses were carefully designed to meet the learning-outcomes of the program:

- Current programming skills in World Wide Web (CSC 22, CSC 80, CSC 121, CSC 123)
- Technology trend and best practice of Web application development (CSC 80, CSC 120, CSC 121, CSC 122, CSC 123)
- Problem solving (CSC 80, CSC 120, CSC 121, CSC 122, CSC 123)
- Team work (CSC 120, CSC 122, CSC 123)
- Life-long learning (CSC 80, CSC 121, CSC 122, CSC 123)
- Written and Oral communications (CSC 122, CSC 123)

2. Please list in prioritized order (or indicate no prioritization regarding) up to four desired learning outcomes (“takeaways” concerning such elements of curriculum as perspectives, specific content knowledge, skill sets, confidence levels) for students completing the program. For each stated outcome, please provide the reason that it was designated as desired by the faculty associated with the program.
A. Current programming skills in World Wide Web (Learning the latest Web programming skills is at the core of the Web Development Program)

B. Problem solving (The ultimate goal of this program is to enable students with the ability of developing practical Web solution to real-world problems)

C. Technology trend and best practices of Web development (It is essential for students to understand Web technology trend and industrial best practices so that they will be able to provide solutions that meet customers’ needs and requirements.

D. Life-long learning (WWW is one of the fastest advancing technologies. The program gives students the first-hand experience to understand that life-long learning is critical for an educated person in general, a Web professional in particular).

3. For undergraduate programs only, in what ways are the set of desired learning outcomes described above aligned with the University’s Baccalaureate Learning Goals? Please be as specific as possible.

<table>
<thead>
<tr>
<th>University Baccalaureate Learning Goals</th>
<th>Outcome (a) Current programming skills in World Wide Web</th>
<th>Outcome (b) Problem solving</th>
<th>Outcome (c) Technology trend and best practices of Web development</th>
<th>Outcome (d) Life-long learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence in Discipline</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Knowledge of Human Cultures &amp; Physical &amp; Natural Worlds</td>
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<td>Intellectual &amp; Practical Skills</td>
<td>X</td>
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<td>X</td>
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<td>Personal &amp; Social Responsibilities</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Integrative Learning</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

4. For each desired outcome indicated in item 2 above, please:

While the learning outcomes of the program have been clearly defined, no program assessment has taken place yet due to the lack of resources.

5. Regarding each outcome and method discussed in items 2 and 4 above, please provide

While the learning outcomes of the program have been clearly defined, no program assessment has taken place yet. Thus we are not able to provide information at this point. We plan to do so in the future.

6. Has the program systematically sought data from alumni to measure the longer-term effects of accomplishment of the program’s learning outcomes?
No, we have not done this yet. The Department has an active Industrial Advisory Committee (IAC). We plan to work with IAC on this task.

7. Does the program pursue learning outcomes identified by an accrediting or other professional discipline-related organization as important? Does the set of outcomes pursued by your program exceed those identified as important by your accrediting or other professional discipline-related organization?

No.

The program is provided to serve the purpose of keeping CSC majors and non majors’ Web skills update to date. To the best of our knowledge, there are not learning outcomes identified by an accrediting or other professional discipline-related organization.

8. Finally, what additional information would you like to share with the Senate Committee on Instructional Program Priorities regarding the program’s desired learning outcomes and assessment of their accomplishment?

The Web development certificate was pursued by a large number of students, both majors and non-majors several years ago. However the program has been severely impacted due to the poor budget situation and the lack of resources in recent years—we have not been able to offer CSC 120, CSC 121, CSC 122, CSC 123 on a regular basis.