Department Name: Computer Science

Date Submitted and Academic Year: Fall 2009 for AY 2009-2010

Department Mission Statement: The Computer Science Department at SUNY Potsdam prepares its students for a rewarding career as a computer professional -- where they apply their computer science knowledge and experience towards improving our lives -- or for further study in graduate school.

Faculty Member Completing this Form: Dr. Timothy Fossum

Update on prior years’ “Application of Assessment Results:
SUNY Potsdam
Student Learning Outcomes Assessment Plan – Computer Science

Intended Student Learning Outcome #1
Students will demonstrate knowledge of discrete and continuous mathematics – including elementary probability and statistics – and the ability to apply logic and mathematical proof techniques to computing problems.

Connection to Univ/Dept Mission
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Links with other programs/departments
Gen Ed Component
- CIS 105, 125, and 201 all meet the FM requirement.
- CIS 380 (Professional Practice) meets the SI requirement
- CIS 405 (Software Engineering) meets the WI requirement

Related Courses

Measurable Criteria and Assessment Method(s)
Measurable outcomes are given in the attached Outcomes document. The mapping of outcomes to the courses that are designed to achieve these outcomes is given in the attached Outcomes Map. A sample rubric for the Programming outcomes is given in the attached rubric. Rubrics for the remaining outcomes are still under development.

Data Source/Results & Analysis
Data obtained from applying the rubrics for the specific outcomes will be obtained from each course and saved in a database, on a per-student basis. This will allow analysis of the levels of achievement toward meeting the objectives by student, by course, by objective, and overall.

Application of Results/Action Plan for Improvement
Upon analysis of the data collected above, we will determine what areas of our courses need further attention toward meeting the stated objectives.
**Intended Student Learning Outcome #2**
Students will demonstrate knowledge of basic theory of computability and complexity of computation.

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Intended Student Learning Outcome #3
The student will demonstrate knowledge of and the ability to apply programming fundamentals in at least two programming languages.

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**Intended Student Learning Outcome #4**
The student will demonstrate knowledge of fundamental data structures and algorithms – including analysis of their correctness and complexity – related to various fields of computer science, and the ability to apply this knowledge to problems through the use of appropriate programming languages.

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Intended Student Learning Outcome #5
The student will demonstrate knowledge of computer architecture and organization, computer operating systems, and computer networks, and the ability to apply this knowledge to problems through the use of appropriate programming languages.

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Intended Student Learning Outcome #6
The student will demonstrate competence and effectiveness in technical oral, written, and visual communication, particularly as they apply to the dissemination of technical information on subjects dealing with computing technology and applications.

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Intended Student Learning Outcome #7
The student will demonstrate knowledge of and skill in applying good practices in software engineering.

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**Intended Student Learning Outcome #8**
The student will demonstrate the ability to function effectively in teams to accomplish a common goal.

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**Intended Student Learning Outcome #9**
The student will demonstrate an understanding of professional, ethical, legal, security, and social responsibilities and issues, including an awareness of impact of computing on individuals, organizations and society.

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Intended Student Learning Outcome #10
The student will demonstrate a commitment to continuing professional development.

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(Additional Intended Student Learning Outcomes can be added if required)
<table>
<thead>
<tr>
<th>Summary of Action Plans for upcoming Academic Year</th>
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<tbody>
<tr>
<td>1.</td>
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<td>8.</td>
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<tr>
<td>Trait</td>
<td>Exceptional</td>
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<td>-------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Specifications</td>
<td>The program works and meets all of the specifications.</td>
</tr>
<tr>
<td>Readability</td>
<td>The code is exceptionally well organized and very easy to follow.</td>
</tr>
<tr>
<td>Reusability</td>
<td>The code could be reused as a whole or each routine could be reuse</td>
</tr>
<tr>
<td>Documentation</td>
<td>The documentation is well written and clearly explains what the code is accomplishing and how.</td>
</tr>
<tr>
<td>Delivery</td>
<td>The program was delivered on time.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>The code is extremely efficient without sacrificing readability and understanding.</td>
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<tr>
<td>CS BA mapping of objectives to required courses – December 17, 2008</td>
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<td></td>
<td>CS 201</td>
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<td>CS I</td>
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<td>Theory</td>
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<td>Algorithms</td>
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<td>Arch/OS/Networks</td>
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<td>Communication</td>
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<tr>
<td>1=recognition</td>
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<tr>
<td>2=familiarity</td>
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<td>3=mastery</td>
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<td>Proficiency</td>
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<tr>
<td>Coverage</td>
<td>A=minimal</td>
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