MS Web Science Student Learning Assurance Report

Academic Year   2011-12

Report Date   September 30, 2012

School/College   Arts & Sciences/Sciences

Department/Program   Computer Science/Master of Science in Web Science

Person completing Report Prof. Jeff Buckwalter

1. Overview Statement

The academic year 2011-12 was the first year for which program learning outcomes were assessed according to the MS Web Science Program Assessment Plan of November 8, 2011. In accordance with Bill Murry's e-mail of August 23, 2012, we assessed one third of the student learning outcomes in the plan, namely, the first and fourth, learning outcomes.

The faculty involved in the evaluation of the learning outcomes were Prof. Chris Brooks, and Prof. Sami Rollins.

2. Discussion of the Student Learning Outcomes Assessed

Student Learning Outcome 1: "Design and build socket programs for network communication."

a. <u>What did we do?</u>
      In accordance with the Curriculum Mapping of the Plan, we determined that the only course which had coverage of this learning outcome was CS 685 Wireless Sensor Networks. Unfortunately, the professor has a policy of returning all work and exams to the students, so no measurement data could be collected for this report.

b. <u>What did the faculty learn</u>?
      N/A

c. <u>What will be done differently as a result of what was learned?</u>
      N/A

d. <u>What student learning improvement initiatives did we implement as a result of what was learned from this Year's student learning assurance report?</u>
      N/A

Student Learning Outcome 4: "Design complex data structures and algorithms that model physical or abstract systems in the real world."

a. <u>What did we do?</u>
- In accordance with the Curriculum Mapping of the Plan, we determined that the only course which had coverage of this learning outcome was CS 662 Artificial Intelligence.
- Then, in the words of the professor, "For this, I will evaluate Assignment 2: search and constraints, in which students were asked to implement a series of search algorithms to solve path problems on a map of San Francisco. https://sierra.cs.usfca.edu/assignments/assignment2.html "
- In accordance with the Rubric of the Plan, where 0 indicates Unacceptable, 1 indicates Acceptable, and 2 indicates Exemplary, the scores were: 1,0,2,0,1,1,1,1,2,2,0,1,1,1,2,2,1,0,1,2,2,1

b. <u>What did the faculty learn</u>?
> In the words of the professor:
>> This is the first difficult assignment the students receive. They have to understand an existing codebase, understand a fairly complex algorithm (forward checking) and a new programming style (applicative programming with functions as first-order objects).
>>
>> In past semesters, I have either left off the constraints part or had another assignment before this to give students more of a coding warm-up. This adds more assignments to the class - there are pros and cons to that.

c. <u>What will be done differently as a result of what was learned?</u>
> In the words of the professor, " In the future, it would be interesting to return to this problem at the end of the semester, when students have a greater mastery of these concepts, and compare performance."

d. <u>What student learning improvement initiatives did we implement as a result of what was learned from this Year's student learning assurance report?</u>
> At this point, the student learning assurance report is too recent to have had a significant impact on student learning improvement initiatives.

3. Attach a copy of the components of the department/program student learning assurance plan that have been modified since its initial submission

The MS Web Science Program Assessment Plan of November 8, 2011 has not been modified, and so is not attached here.