



Degree Program Annual Assessment Update

<http://www.caspercollege.edu/assessment/index.html>

Purpose: The purpose of the *Degree Program Annual Assessment Update* is to provide information about progress in assessment efforts for each degree program within your department. Only one report is requested of each department, as this update will accommodate multiple degree plans. (You can still submit separate reports if you prefer.) The report will be made available <http://www.caspercollege.edu/assessment/index.html>. It is recommended that your department use your assessment update and results to *celebrate achievements of student learning* as well as to *identify potential areas for future curriculum improvement*.

Please email this completed form as an attachment to kthatcher@caspercollege.edu.

CONTACT INFO:

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 2. **Department:** Computer Science
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ASSESSMENT UPDATE:

Instructions: Please answer the following **five** questions to the best of your ability for each degree program offered within your department or *you may use the table provided on the next page*.

1. Summarize your **assessment activities** during the past year for each degree program. (*e.g. faculty discussions, new survey design, data collection, revised assessment plans or learning outcomes, etc.*).
 A program Assessment Plan was developed. It calls for the creation of a capstone assignment: the template phonebook was given to the Fall and Spring semesters of my Computer Science II course. The assignment was forwarded to and reviewed and approved by the Assessment Coordinator. As part of the plan the plan was also reviewed and approved by two programmers working in the private sector, and two previous Computer Science Instructors as well as the Sciences Dean of the School of Science. The plan was implemented and data recorded for the capstone assignment for the fall and spring Semesters of Computer Science II. Similar capstone assignments and results compiled in related assignments in COSC1010 Introduction to Computer Science, COSC1030 Computer Science I, and COSC2406 Programming in Java, all having a "address book assignment" which were tailored to courses language and student skill level.
2. Describe specific **assessment findings** related to the **learning outcomes** assessed for each degree program, including any pertinent context surrounding the findings. Please include the **learning outcomes themselves**. (*e.g. 77% of students performed at the "proficient" level of competency in problem solving, which is where we aimed to be this year using a new scoring rubric...*)

- a. Please attach any tables, graphics, or charts to the end of this report.

**Outcomes Criteria for Level of Proficiency in Course Content as Indicated by
Assignment for the Fall 2009 and Spring 2010 Semesters of Computer Science II***

Outcome Criteria	Yes/No
Student is able to successfully solve problems writing programs which appropriately incorporate selection structures, iteration structures, and functions.	15 yes, 1 No
Students is able to successfully solve problems using object oriented programming (create their own classes), using reference materials and examples obtained from the class.	15 yes, 1 No
Student is be able to successfully apply search, and sort algorithms with abstract data arrays to solve problems using reference materials obtained from the class.	15 yes, 1 No
Student is able to successfully debug their own programs.	15 yes, 1 No

*results do not include students who dropped the course before hand or stopped participating in the class.

3. Describe how assessment **feedback** has been provided to students, faculty, and staff. (*e.g. report for faculty, executive summary for the dean, web page for students, alumni newsletter, discussion with students in class or club event, etc.*)

Department faculty were made aware: the instructor was (the sole member of the department). The results will be shared with all faculty, staff and students on Casper Colleges Assessment Plan and Outcome page. Students were further made aware of the result on an individual level when their assignments were returned and graded in Moodle.

4. In what ways have you **used assessment findings** to celebrate student achievements and/or to improve the curriculum this past year? (*e.g. prizes to students, hosting student parties, changes to curriculum, student projects, learning goals, assessment strategies, etc.*)

Major changes to the curriculum this year included making recorded online demonstrations of the preparatory content and the introduction of the assignments (in part to assure online students were adequately prepared and that in-class students could review the materials later). Results were also shown for the first time under the Individualized Moodle Grade Report, so that students could view the impact of the assignment on their overall grade, as well under the Moodle Assignment Page which showed the assignment, the grade, feedback, and submission region. in Moodle which Students were incentivized to do well on the assignment in the courses by doubling the usual number of points allocated the assignment. Students were also told that this assignment was a capstone assignment and was of considerable importance in determining their mastery of the content.

5. Describe any changes to your assessment plans, or any challenges or educational experiences with the **assessment process** this past year that you would like to share.

- a. *Please submit any **revised/updated assessment plans** to the Assessment Office along with this report.*

The assessment plan has been submitted this year and the overall report (this document) submitted to the Assessment Coordinator to be posted. One huge difference with years past in this process was the inclusion of members of private industry and previous instructors industry in reviewing the assessment plan and instrument. In addition the Assessment Coordinator and School of Science Dean were integrally involved in reviewing the plans, outcomes, and results of this document.

Students worked very hard on the assignment and especially the students further along in the program were able to see the connectivity of the assignment, and its outcomes with the other courses (COSC1010, COSC1030, and COSC2406) they had taken prior and in essence had received preparatory content. The whole exercise had unity because of this, and called on cumulative experience not just in the course but in all their previous courses, albeit with new and more challenging requirement (i.e. involving sophisticated class development involving multiple classes involving template classes which created the need use more challenging problem solving, design, debugging issues requiring the skillful implementation of related selection, iteration structures, functions which included searching, sorting, etc.).

The current of assessment plan will continue to be implemented next year to take the pulse of how students are performing and to assess if any issues exist which might indicate a need to change the content of this course (Computer Science II, as well as any of the other courses with related content.) Any necessary changes that are seen in response to issues will be made, but at this point, the results appear positive. I might add, that the results were compiled were extraordinary positive, and the number of students comprised a small sample and this fact might have to be taken into interpreting the results and related variation with future classes.