

UHCL Assessment Plan  
FY07 (or academic year 2006-07)

School of Science and Computer Engineering  
Computer Science - BS

**Note: The Computer Science – BS assessment is comprehensive; only selected outcomes are displayed here to illustrate.  
This plan is selected to illustrate clear description of the use of results which is the most important component in the entire assessment process.**

Learning Outcomes Assessment					
Learning Outcomes	ULO <sup>1</sup>	Assessment Methods	Criteria for Success	Assessment Results	Use of Results
CS students will be able to apply problem solving, basic scientific methods, and mathematics in the design and analysis of software systems.	a, c, g, h	(1) Exit survey of CSCI 3231, CSCI 3333, CSCI 3532 and CSCI 4534. (2) Examination evaluations of CSCI 3333. (3) Portfolio Review of CSCI 4838 Senior Projects for Computer Science.	(1) Every course objective of a course exit survey must be satisfied by 70% or above. (2) Every course objective of the course examination evaluations must be satisfied by 70% or above. (3) Relevant components of every team in CSCI 4838 capstone project course should be deemed acceptable by a faculty and industrial panel using a metric developed by the faculty body.	(1) Exit survey results in Spring 2007 indicate that all course objectives are satisfied. Exceptions are three course objectives in CSCI 3331, Which are just below 70%. Exit survey on CSCI 3532 in Fall 2006 also shows three course objectives at only 50%.(2) Course examination evaluations reveal no problem.(3) A senior project assessment day involving faculty members and industry partners has revealed that portfolios of CSCI 4838 are satisfactory. For the portfolio analysis of CSCI 4838, working with the industrial partners, the faculty members have developed a set of metrics for evaluating the team's portfolios of the senior project course. This includes a checklist of required artifacts (such as test plan, requirements document, component diagrams, etc.) and a ranking of other performance parameters (such as writing, ethics, requirements, teamwork, global perspective, etc.) on whether the artifacts exceed, meet or are below expectation. Evaluations done by faculty members and industrial partners are then averaged. Using this metric on the portfolios, it was found out that 67% of student work meets or exceeds expectations.	(1) The course committee of CSCI 3331 have recommended adding lecture hours in these three areas. It was implemented. The instructor of CSCI 3532 was replaced in Spring 2007 and the course objectives are all satisfied in that semester.(2) Continue to monitor.(3) The senior project day has been found to be an effective evaluation and outreach tool. The committee will work with the course instructor to create a list of attributes to be emphasized in the portfolios. The rubrics will be reevaluated to ensure that they accurately reflect student capabilities. The faculty will continue to monitor the results by applying the metric. Continue to monitor. Strengthened the CS/CIS industry advisor board for assessment and other purposes.

Learning Outcomes Assessment					
Learning Outcomes	ULO <sup>1</sup>	Assessment Methods	Criteria for Success	Assessment Results	Use of Results
CS students will be able to apply core computer science and computer engineering fundamentals in the design and analysis of software systems. This capability includes the specification, design, implementation, and testing of software systems that meet or exceed requirements, performance, cost and quality criteria.	a, c, h	(1) Exit survey of the required courses CSCI 3331, CSCI 3333, CSCI 3532, CSCI 4333 and CSCI 4534. (2) Portfolio Review of CSCI 4838.	(1) Every course objective of a course exit survey must be satisfied by 70% or above. (2) Relevant components of every team in CSCI 4838 capstone project course should be deemed acceptable by a faculty and industrial panel using a metric developed by the faculty body.	(1) Exit survey results in Spring 2007 indicate that all course objectives are satisfied. Exceptions are three course objectives in CSCI 3331, Which are just below 70%. Exit survey on CSCI 3532 in Fall 2006 also shows three course objectives at only 50%.(2) A senior project assessment day involving faculty members and industry partners has revealed that portfolios of CSCI 4838 are satisfactory.	(1) The course committee of CSCI 3331 have recommended adding lecture hours in these three areas. It was implemented. The instructor of CSCI 3532 was replaced in Spring 2007 and the course objectives are all satisfied in that semester.(2) Continue to monitor. (3) Strengthened the CS/CIS industry advisor board for assessment and other purposes.
CS students will be able to clearly convey technical material through both formal written papers and oral presentations.	b, d	(1) Grade analysis of two required courses: speech communications and technical writing. (2) Exit survey of CSCI 4838. (3) Presentation and portfolio review of CSCI 4838	(1) Both courses should have a grade of C- or above. (2) Every related course objective of a course exit survey must be satisfied by 70% or above. (3) Relevant components of every team in CSCI 4838 capstone project course should be deemed acceptable by a faculty and industrial panel using a metric developed by the faculty body.	(1) Graduation audit indicates that the grades of both courses are C- or above. (2) Exit survey of CSCI 4838 indicates course objectives are completely satisfied. (3) A senior project day involving faculty members and industry partners has revealed that portfolios of CSCI 4838 are satisfactory. For the presentation component of CSCI 4838, working with the industrial partners, the faculty members have developed a set of metrics for evaluating the teams_ presentations. A rubric of several presentation parameters (such as eye contact, elocution, meaningful visuals, and bad habits) was ranked by the evaluators. Using this metric, it was found out that there is no major deficiency in team presentations.	The portfolio and presentation rubrics will be reevaluated annually to ensure that they reflect student capabilities. The faculty will continue to monitor the result by applying the metric. Continue to monitor.

<sup>1</sup>University Learning Outcomes (ULO)

In developing student learning outcomes, select from the list below the university level learning outcome(s) that match most closely to the learning outcomes.

- a.** Critical Thinking - The mastery of higher order thinking skills including quantitative and qualifying analysis, synthesis, and evaluation of information, argumentation, problem solving, and creativity.
- b.** Communication - Effective written and oral expression including the use of such media as audio, video, text, and graphics.
- c.** Information Technology - The application of information technology to search for, access, retrieve, organize, interpret, and transfer information.
- d.** Interpersonal Competence - The capacity to understand many points of view and to work responsibly with others in a variety of settings.
- e.** Ethical Citizenship - The ability to make ethical decisions in person and professional societal contexts
- f.** Global Perspective - The capability to demonstrate awareness of local and global diversity, within the students chosen discipline, the international economy, and the interrelated worldwide environment.
- g.** Self-directed Learning - The ability to identify, assess, revise, and monitor learning to achieve personal and professional goals.
- h.** Other: Professional accreditation standards