June 8, 2011

Assessment Plan Departmental Review Spring 2010-11

Building Construction Technology Department

Degree: AAS BCTM Construction Management

Prepared by: Shannon Baird, BCT Dept. Co-Chair

Introduction

In the fall of 2010, the full-time faculty in the Building Construction Technology Department at Portland Community College developed an assessment strategy for assessing student outcomes and utilizing assessment-based information as feedback to inform and improve curriculum and course delivery to students. The faculty mutually agreed upon several different modalities for assessment, which were summarized on a matrix which mapped the assessment tools to be used with the program outcomes for an AAS in BCTM, and to PCC Core Outcomes. The tools identified were:

Examination / Quiz

Class Assignment

Demonstrated Competencies

Lab and Portfolio Projects

The Assessment Plan indicated the department intended assessment to take place in year two of the plan.

Development

The full-time faculty met on SAC designated work days, as well as in weekly departmental meetings, to discuss progress and development of the tools that were proposed in the November 15, 2010 Assessment Plan.   Several tools were developed by faculty over the course of the year. Some of these tools were implemented in the course. Lessons were learned in the development and implementation which were peer reviewed within the department. Lessons were also learned via the feedback loop created by the tools, and some first steps toward implementing changes to courses or curriculum were taken.

Tool Development

The department faculty identified four major components of the assessment toolkit. These tools expand upon, and ultimately will replace, the tools originally specified in the Nov 15 Assessment Plan (and listed above). The assessment tools developed this academic year are:

Student Self-Evaluation Assessment

Examination / Competency /Assignment Assessment

Portfolio Assessment

Industry Advisory Board Assessment

Each of these tools required initial development prior to implementation. The tools recognize three primary points of view available for assessment of outcomes; student, faculty, external advisor. The self-assessment tool allows students to place their own entry-level benchmark for a course upon entry, and to self-assess progress upon exiting a course. The more traditional tools of Examination, Competency Evaluation, and Assignments are still available to instructors, but the addition of a portfolio element to the course, when possible, allows for course to course comparison, as well as for third party review by members of the Industry Advisory Board.

The Tools

Student Self-Evaluation Assessment

Faculty developed student entry/exit surveys for specific courses. These surveys question students on the first day of a course on their familiarity/mastery of particular identified core outcomes students can expect from the course. Students rank their familiarity with each identified outcome, 1-10 (1=totally unfamiliar, 10=able to instruct others). Students complete the self-assessment on first day of class, and on the last day of class. This tool provide quantitative data which can be used to compare course outcomes over time. The entry rank/exit rank ratio can demonstrate quantifiable improvement. Sum totals of exit assessments demonstrate from the student's point of view their own sense of competency for each outcome.

Examination / Competency / Assignment Assessment

Faculty use traditional forms of assessment to inform and improve curriculum and course content and delivery. Instructors review progress of students via exam/quiz, which has demonstrated long-term retention success. Assignments provide opportunities for peer review, student to student, as well as Instructor review, comment, and ultimately, assignment development and improvement. Demonstrated competency in those areas that can be demonstrated remain a vital assessment tool for faculty, and for students, as they can observe specific technical skills competently demonstrated.

Portfolio Assessment

Faculty identified several courses in the Nov 15 Assessment Plan for portfolio development. The intent of the portfolio is to provide the student with an opportunity to produce a defined product from the course which demonstrates mastery of a particular topic/subject area, professionally presented. This 'exit product' or 'deliverable' is valuable to students as they transition from PCC to a work environment or job search. In many cases, the product may mimic a similar product one would encounter in industry; a company Safety Plan, a Business Plan, or a Case Study, or a set of drawings. Portfolios can be assessed in peer review with fellow students, by a faculty member, or third party review.

Industry Advisory Board Assessment

CTE programs at PCC benefit from the support of an Industry Advisory Board, comprised of competent professionals who work in the industry every day and are familiar with the standards and practices students are being trained to uphold and navigate successfully. The members of the Advisory Board are uniquely qualified to provide third party assessment of demonstrated student 'deliverables'. The faculty presented this idea to the Advisory Board at our Winter Term meeting, and support for the tool was strong. Advisory Board members have volunteered to work with faculty to develop the tool, and to implement it. The Advisory Board recommended the formation of a sub-committee to be responsible for review samples of student work, and to help develop the mechanism for selection of those to be reviewed.

Samples

Samples of several of the tools developed are attached to demonstrate progress for 2010-2011. A sample of the self-assessment tool for BCT 222 Engineering for Constructors is attached. A sample of the Portfolio Assessment tool from BCT 134 Construction Scheduling is attached.

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CTE Assessment Plan

AAS for Design/Build Remodeling BCT Option

Submit to learningassessment@pcc.edu by November 15, 2010

1. Outcome	2. Maps to a Core Outcome?	3. Assessment Setting/Method	4. When will assessment take place ?
Foundational Construction Skills Evaluate building systems, including structural and mechanical, and apply such knowledge to building design and construction requirements. Employ efficient, environmentally responsible and safe construction skills and techniques on remodeling and/or new construction projects	• Communication • Community and Environmental Responsibility • Critical Thinking and Problem Solving • Professional Competence	Competencies are assessed throughout coursework, and evaluated through both written tests, an course projects	Group Projects throughout the program Competencies throughout the program Industry assessment of portfolio toward end of degree
Building Systems Identify and analyze technical and aesthetic project requirements, research industry specifications, and specify appropriate, sustainable, building and finish materials, equipment, and fixtures to meet client needs and building code requirements.	• Communication • Critical Thinking and Problem Solving • Professional Competence • Cultural Awareness • Community and Environmental Responsibility	Competencies are assessed throughout coursework, and evaluated through both written tests, an course projects Competencies throughout coursework	Exams, assignments and course projects throughout the program Competencies throughout the program Industry assessment of portfolio toward end of degree
Kitchen and Bath Design Create kitchen and bath design solutions meeting client aesthetic and budgetary needs by using the National Kitchen and Bath Association guidelines and the elements & principles of design including universal & accessible design criteria.	• Communication • Cultural Awareness • Critical Thinking and Problem Solving • Community and Environmental Responsibility • Professional Competence	Competencies are assessed throughout coursework, and evaluated through both written tests, an course projects	Group projects throughout the program Competencies throughout the program Industry assessment of portfolio toward end of degree
Communication and Project Management Exhibit organizational and written/oral communication skills required to bring design/build projects from initial concept to competition. Prepare contract documents, using industry standards for written and graphic communication. Manage project schedule, subcontractors and suppliers.	• Critical Thinking and Problem Solving • Professional Competence • Communication	Discussion topics Investigative group projects Students complete SP 215 Students complete BA 238	Discussion topics across the curriculum Investigative group projects across the curriculum Industry assessment of portfolio toward end of degree

Practice ethical standards of business conduct and professional services.			

5. For Programs that are beneficiaries of Perkins funding: Identify assessments that will comprise the TSA.