Annual Report for Assessment Outcomes

Architectural Design & Drafting Program

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1. ***Describe changes that have been implemented towards improving students' attainment of outcomes that resulted from outcome assessments carried out in the previous academic year.***

Meeting the outcomes of the Critical Thinking Core Outcome is very important to our SAC. As a CTE program, the focus on technical skills can dominate student's learning; with critical thinking taking on secondary importance. Our SAC report for the previous academic year (2009-10) proposed the use of "Evaluation Rubrics" for evaluating critical thinking in several classes.

This academic year these rubrics were used for ARCH 100, 101, 102, 110, 200 and 224, by instructors for assessment (grading) and by students (in group critiques). The rubrics were very useful in assessing student's projects; several instructors now post them on their course website so students know ahead of time how their projects will be assessed. In ARCH 200, we found that having students assess each other's work privately (not shared with other students) allowed for better development of critical thinking skills and practice of design vocabulary. This method will be introduced into ARCH 101 and 224 next academic year, with the hope of Improving critical thinking, as related to design in ARCH 101 and as related to building analysis in ARCH 224.

An unexpected, and very successful critical thinking tool evolved from the several of the Adjunct Faculty, who used a "Guest Panel" at the end of their courses. In ARCH 101 and 102, guest speakers critiqued student work, in small groups, and then came together to address the whole class in a panel. The guests spoke to the importance of critical thinking issues such as integration of aesthetic and technical issues. This has been very well received by the students, as a "voice from the industry" is highly respected. Our faculty has discussed the idea of creating a "pool" of guests to critique student work.

A specific rubric was proposed for use in the ARCH 224 class. This was used (Fall 2010 and Spring 2011) to evaluate their capstone term projects. The result was that the rubric proved to be a very good reference for the instructor's evaluation, but not necessarily as a guide for the students. The capstone projects showed me (instructor for the course) that Critical Thinking outcome goals were not fully met for this class. So, I plan to reformat the projects for the class (for Fall 2011), and conduct several reviews of the capstone project throughout the term. I believe multiple cycles of feedback to students will be helpful to developing strong capstone projects for the class.

2. ***Identify the outcomes assessed this year, and describe the methods used. What were the results of the assessment?***

a. Outcomes assessed and method used:

Outcomes Assessed	***Method Used***
Design a residential or small commercial project responsive to site conditions, user requirements, codes and construction standards, and aesthetic and environmental conditions.	Assessment based on depth and breadth of design response to site, program, codes, construction standards, aesthetic and environmental consideration.
Produce architectural drawings using computer-aided drafting software.	Assessment based on completeness of drawings, and their ability to communicate the architectural drawing requirements.
Produce a set of construction documents that describe the construction requirements for a project, using accepted industry practices.	Assessment based on completeness of the construction documents, and their ability to communicate the construction requirements.

Students, Nature of Assessment, Assessment Method:

The Outcomes Assessment was conducted on one of the second-year design studio classes, using a Capstone project, and their resulting portfolios. The project reviewed was developed over of the entire term. For purposes of this assessment, I have included results from review of 5 student projects, along with their current employment status, as most graduated this June. A standard rubric was used for assessment of the final project.

b. Results of Assessment:

Student Name	Outcome #1 + Assessment	Outcome #2 + Assessment	Outcome #3 + Assessment
	Design a residential or small commercial project responsive to site conditions user requirements, codes and construction standards, and aesthetic and environmental conditions.	*Produce architectural drawings using computer-aided drafting software.*	*Produce a set of construction documents that describe the construction requirements for a project, using accepted industry practices.*
Student "A" (Currently working as draftsperson for graphics company, using 2-D CAD skills)	A fairly complete design response to site, program, codes, construction standards, aesthetic & environmental consideration; somewhat limited design inquiry.	A complete set of 2-D architectural drawings; some use of 3-D drawings.	Construction documents complete and adequate in their ability to communicate the design and construction requirements.
Student "B" (Will graduate Dec. 2011)	A very complete design response to site, program, codes, construction standards, aesthetic and environmental consideration; extensive design inquiry.	A very complete set of 2-D architectural drawings; along with extensive use of 3-D drawings.	Construction documents complete and adequate in their ability to communicate the design and construction requirements.
Student "C" (Will graduate 2012)	A fairly complete design response to site, program, and aesthetics; problems w/ several building codes and construction standards; limited design inquiry.	A complete set of 2-D architectural drawings; limited use of 3-D drawings.	Construction documents complete, but not adequate in their ability to communicate all design and construction requirements.
Student "D" (Currently doing CWE at large Architectural firm, using design & 2-D CAD skills).	A very complete design response to site, program, codes, construction standards, aesthetic and environmental consideration; extensive design inquiry.	A complete set of 2-D architectural drawings; limited use of 3-D drawings, but highly illustrated with color.	Construction documents complete and adequate in their ability to communicate the design and construction requirements.
Student "E" Just hired as designer/drafter for builder, using 2-D and 3-D CAD skills.	A very complete design response to site, program, codes, construction standards, aesthetic and environmental consideration; extensive design inquiry.	A very complete set of 2-D architectural drawings; along with extensive (and outstanding!) use of 3-D drawings.	Construction documents complete and more than adequate in their ability to communicate the design and construction requirements.
Student "F" Just hired at large Architectural firm, using 3-D CAD skills.	A very complete design response to site, program, codes, construction standards, aesthetic and environmental consideration; extensive design inquiry.	A very complete set of 2-D architectural drawings; along with extensive (and outstanding!) use of 3-D drawings.	Construction documents complete and more than adequate in their ability to communicate the design and construction requirements.

3. ***Identify any changes that should, as a result of this assessment, be implemented towards improving students' attainment of outcomes.***

After reviewing student capstone projects for 2010-11, our SAC identified weakness in two areas; 1) *building systems and structures, and 2) techniques for portfolio illustration and presentation.*

<u>As a result, the following changes are underway in our coursework:</u>

ARCH 124 – Structural content was removed, so there would be more focus on building systems in depth. To further assist student learning, note-taking templates were developed for in-class use; homework assignments were changed, and are now based on observing and reporting on systems in the home. (Change implemented spring 2011).

ARCH 121 – Basic structural content is covered in more depth, and extensive use of calculations will be reserved for ARCH 122. (Change to be implemented Summer 2011).

ARCH 122 – Structures content revised to include more application and in-class practice; class format will change from lecture only to lecture/lab. (Change to be implemented Summer 2011).

ARCH 122 – Structures content revised to include more application and in-class practice; class format will change from lecture only to lecture/lab. (Change to be implemented Fall 2011).

ARCH 140 and 141 will become new classes, covering illustration (using Photoshop) and portfolio design (using InDesign). (Courses to begin Fall 2011).