Program /Discipline Title: Construction Management Technologies

Time Period:
June 2010 to June 2011

Program Goals, objectives, and/or mission:

**Philosophy** Faculty strives to provide a rigorous, stimulating, and engaging academic environment. An environment which encourages relevant self-directed learning and problem solving. An environment in which students can build upon the past experiences of themselves, other students, and the faculty to achieve their academic goals and begin their careers.

**Goal** The goal of this program is to give students the necessary knowledge, skills, and attitudes to gain entry into support, management, and estimating positions of the construction industry.

Exit Competencies:

- A. Demonstrate knowledge and skills in basic business management and organization.
- B. Demonstrate a firm understanding of how to read and interpret residential, commercial, and civil drawings and specifications.
- C. Develop a systematic approach to construction cost estimating and project management techniques.
- D. Illustrate proficiency in the use of computers and construction related software for CADD, estimating, project management, and basic office communication.
- E. Apply relevant communication skills, project teamwork, and problem solving techniques in the construction industry work environment.

Core Competencies:

**LIFE SKILLS:** Student’s personal behavior will demonstrate the ability to make reasoned judgments, to be responsible for commitments, and to understand the viewpoints of others. This includes professionalism, work ethic, and citizenship.

**TECHNOLOGY:** Students will understand the limits, problems, and possibilities associated with the use of technology and will have the tools necessary to evaluate and learn new technologies as they become available. This
includes the ability to use computer-based technology to communicate, solve problems, and acquire information.

**INTERPERSONAL SKILLS/TEAMWORK:** Students will work and interact with others at a personal, professional, and global level demonstrating respect for individual and cultural differences while practicing civility, honesty, and personal responsibility.

**CRITICAL THINKING:** Students will demonstrate the ability to engage in the process of defining tasks and evaluating problems through the examination of information, application of computation skills, and reflection on ideas for the purpose of reaching decisions.

**COMMUNICATION:** Students will read, write, listen, and use verbal skills to organize and communicate ideas and information in personal group settings.

**NUMERACY:** Students will read, interpret and utilize quantitative methods to make decisions in their program of study. They will generate, use and/or apply numerical information by solving problems, measuring, analyzing and expressing information in a manner appropriate to their degree area.

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**Results**

*Introduction and discussion of assessment efforts:*

Program Exit Competencies A, B, C, D, and E were evaluated.

*Assessment Plan (Who, what, when and how assessment took place):*

Full time instructors assessed student learning during the Summer term 2011, Spring 2011, and Fall 2010. Instructors used evaluation rubrics for each exit competency evaluating student learning on 3 of the five learning objectives for Exit Comp. A, two of the three learning objectives for Exit Comp. B, all five learning objectives for Exit Comp. C, two of five learning objectives for Exit Comp. D, and all of the learning objectives for Exit Comp. E. Instructors used classroom observations and course work to rank students on each rubric from 1 to 4. Assessments were undertaken in CM1105, CM1305, CM2105, CM2115, CM2210, CM2220, and CM2999.
Exit Competency Results:

Exit Competencies A, B, C, D & E show good student learning.

Core Competency Results:

Discussion of changes in support of student learning for PAST year:

Changes in support of learning for previous cycle (Part-time faculty need to be encouraged to measure student learning during the upcoming terms in order for the remaining two learning objectives of Exit Comp. D to be evaluated) was not accomplished.

Discussion of changes in support of student learning for COMING year:

To facilitate measurement of learning objectives in Exit Comp. D (see above) program personnel should meet to develop rubrics for Exit Competency D2 and D4.

WorkKeys assessments are used as a measure of learning competencies in several Exit Competencies for the program. With this outside assessment tool no longer available other means of assessment need to be identified and evaluation rubrics need to be revised.

Data from WorkKeys assessments (see attached) indicates students are performing well for the skill area levels required for Construction Managers. However, student’s tested skill levels are not adequate for skill area levels required for Construction Estimators. Curriculum should be revised to increase student learning in those areas which show weakness.

Plans for assessment of all Core Competencies:
**DATA**

What tools did you use to measure the Exit Competencies?

Exit Competencies were measured through tests, projects, WorkKeys testing, and portfolios.

Please attach Exit Competency Rubrics if modified.

Rubrics were not modified

Additional Assessment Results:

**Charts of Exit Competency Results:**

Exit Competency A - Demonstrate knowledge and skills in basic business management and organization.
Exit Competency B- Demonstrate a firm understanding of how to read and interpret residential, commercial, and civil drawings and specifications.

Exit Competency C- Develop a systematic approach to construction cost estimating and project management techniques.
Exit Competency D - Illustrate proficiency in the use of computers and construction related software for CADD, estimating, project management, and basic office communication.

Exit Competency E - Apply relevant communication skills, project teamwork, and problem solving techniques in the construction industry work environment.
ATTACHMENTS:

WorkKeys testing has provided program with assessments showing:

Program Exit Competency:

% Meeting or exceeding median skill level required for position.

<table>
<thead>
<tr>
<th>Skill Area</th>
<th>Construction Manager</th>
<th>Estimator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Mathematics</td>
<td>100%</td>
<td>73%</td>
</tr>
<tr>
<td>Locating Information</td>
<td>100%</td>
<td>30%</td>
</tr>
<tr>
<td>Observation</td>
<td>80%</td>
<td>50%</td>
</tr>
<tr>
<td>Reading for Information</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Teamwork</td>
<td>100%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Core Competency

- 100% of students met or exceeded SAA level 4 in Reading for Information.
- 100% of students met or exceeded SAA level 4 in Teamwork.