

Construction Management BS  
Assessment Plan Summary

Construction Management BS

Demonstrate Construction Management Knowledge and Skills

Goal Description:

Students will demonstrate knowledge and skills relevant to Construction Management.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

Development Of Students’ Knowledge And Skill

Learning Objective Description:

Students will be able to demonstrate competency in key areas of Construction Management by successfully displaying skills in an Estimation Course. The Estimation Course serves as a capstone requirement with required skills in construction math, material pricing, bid tabulation, and project scheduling.

RELATED ITEM LEVEL 2

ETEC 4369 Cost Estimation- Knowledge and Skills

Indicator Description:

All students enrolled in the program must complete an estimation class, ETEC 4369. The course addresses key concepts and skills relevant to project cost estimation relative to the field of Construction Management. Students are expected to achieve a 2 or higher on a scale of 0-4, with 0=incompetent, 1=marginal competency, 2=proficient, 3=accomplished, 4=mastered. We expect 80% of the students evaluated will score a 2 or higher.

Criterion Description:

There is consensus among the ETEC faculty that at least 80% of the students will score 2 or higher on the assessment rubric.

Findings Description:

ETEC 4369 – ABC Estimating Competition was used as a substitute for ETCM 4368 – Cost Estimating of Construction Materials this year. The course provided students with the opportunity to apply their estimating knowledge to a real-world project. The course had 15 students of which 12 students were construction management majors. From those 15 students, a random sample of 5 students was obtained. An evaluation was made based on their comprehensive final examination grading. The final exam had 4 sections to assess the students’ knowledge: basic construction math, pricing, bid tabulation, and project scheduling.

Exam Section				Exam Random		
I	II	III	IV	Score	Grade	Number
.625	1	.667	1	3.29	A	1
.625	1	.667	1	3.29	B	2
.625	1	.500	1	3.13	B	5
.8125	1	1	1	3.81	A	13
.8125	1	1	1	3.81	A	14

Section

I	Basic construction math
II	Pricing including material and work take-off
III	Bid tabulation
IV	Project schedule

An evaluation was made based on the Assessment Rubric for each of the students exams and their ranking is shown below.

Rubric objectives						
Student	A	B	C	D	E	F
1	p	a	a	a	m	m
2	p	a	a	a	m	m
5	p	a	a	p	m	m
13	a	m	a	a	m	m
14	a	m	a	a	m	m

		Counts of Scores					
Key	Description	A	B	C	D	E	F
m	Mastered		2			5	5
a	Accomplished	2	3	5	4		
p	Proficient	3			1		
g	Marginal						
i	Incompetent						

Evaluation of the objective are as follows:

- Objective “A” had 2 students that were accomplished and 3 as proficient.
- Objective “B” had all 5 students that were accomplished or better.
- Objective “C” had all 5 students that were ranked accomplished.
- Objective “D” had all 1 student ranking as proficient with 4 students ranking as accomplished.
- Objective “E” had all 5 students ranking as mastered.

Objective “F” had all 5 students ranking as mastered.

RELATED ITEM LEVEL 3

Development Of Students' Knowledge And Skill

Action Description:

The randomly assessed five of the 15 students enrolled in the ETEC 4369 (Cost Estimating of Construction Materials) met the criterion based on a series of course assessment tools. It is expected that future students will achieve at a similar level. We may consider moving the criterion description of 80% of students enrolled in this course scoring a three or higher on the assessment rubric.

### Develop Professional Skills

Goal Description:

Students will gain necessary work force experience to compete in the construction field.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

Demonstrate Professional Skills

Learning Objective Description:

Students completing the BS in Construction Management will demonstrate skills necessary to compete in the professional marketplace through an internship.

RELATED ITEM LEVEL 2

ETEC 4391 Internship Evaluation

Indicator Description:

All students enrolled in the program must complete ETEC 4391 in their final year of enrollment. ETEC 4391 addresses key concepts and skills, as well as practical demonstrations of competency relevant to the field of construction management. Each semester interns will be evaluated by their internship supervisor and by their faculty supervisor on a faculty-developed rating scale.

**Criterion Description:**

It is expected that at least 80% of the students enrolled in ETEC 4391 will achieve above average standard (4 or higher) of performance on the supervisor rating scale.

**Findings Description:**

Three students pursuing the BS in Construction Management were enrolled in ETEC 4391 in Spring 2016, the semester of assessment. All three students completed the assigned weekly reports with a score of 5 on a 5-point scale.

**RELATED ITEM LEVEL 3**

**Demonstrate Professional Skills**

**Action Description:**

Students are exceeding the expectations based on the Criterion Description. We will continue monitoring student performance on an annual basis and be diligent in continuous assessment of this learning objective to ensure that our students are well prepared for the dynamic demands of the marketplace. We consider the current criterion description of 80% of Construction Management students enrolled in the course scoring a 4 or higher appropriate, and will continue the effort to meet and exceed it.

**Update to Previous Cycle's Plan for Continuous Improvement**

**Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

Software issues are resolved and faculty is being identified to teach Surveying.

**Update of Progress to the Previous Cycle's PCI:**

Though great progress has been made toward improving student achievement to the mastery and accomplished levels, our goal for the future is to move all students above the proficiency level into these two categories.

**Monitoring market place, skills, and content knowledge**

**Closing Summary:**

We must be diligent in continuous assessment of the learning objective, "Development of Professional Skills" to ensure that our students are well prepared for the dynamic demands of the marketplace. We will continue to meet and exceed the standard description of 80% students scoring above average standard (four or higher).

The randomly assessed five of the 15 students enrolled in the ETEC 4369 (Cost Estimating of Construction Materials) met the criterion description based on a series of course assessment tools. It is expected that future students will achieve at a similar level. We will also discuss the appropriateness to increase the criterion description of 80% of students enrolled in this course from currently scoring two to a three or higher on the assessment rubric.