

# Quality Improvement Plan

Construction Management Program  
Department of Applied Engineering and Technology  
College of Business and Technology  
Eastern Kentucky University  
*Fall 2015*

## 1.0 Program Mission Statement

The CM degree program mission is to educate, mentor, and inspire students so that each graduate is prepared for a career of professional excellence and service to the construction industry.

## 2.0 Program Strategic Plan

The purpose of this strategic plan is to outline the systematic and sustained efforts needed to enable the degree program to fulfill its mission.

### 2.1 Goals to Achieve Program Mission

The following goals are intended to guide the direction of the construction management program in meeting its mission. The construction management program will aim to:

- A. Expand enrollment to 150 undergraduate students and 50 graduate students by 2020. Such growth would necessitate the addition of a 5<sup>th</sup> faculty member.
- B. Improve the capstone course by involving members of industry and integrating actual industry projects.
- C. Increase the program student pass rate of the American Institute of Constructor's exam to the national average.
- D. Develop a state of the art laboratory to support the construction management program.
- E. Increase the amount of certifications and industry training program students obtain prior to graduation. Current certifications include 30 hour OSHA Construction Safety Training, Quality Construction Management (QCM) training, and Certificate of Concrete Fundamentals.
- F. Continue to place over 90% of students within 9 months of graduation.
- G. Become a regional hub for training industry members.
- H. Grow the membership of the Student Contractor Association (SCA) to at least 70 students.
- I. Participation in at least two scholarly activities by each faculty members.
- J. Continue to improve the construction management space both in and outside of the Ault Building.

- K. Enhance the effectiveness of the program faculty by encouraging and supporting professional development in technical areas as well as teaching.
- L. Earn a national award of excellence for the program at least once every five years.

## **2.2 Review of Resources and External Factors**

The status of the degree program shall be reviewed annually by the faculty during the Assurance of Learning Day held university wide in late September. Available resources and support, as well as external factors affecting the program shall be considered.

The status of the degree program shall be reviewed annually by the executive committee of the Industrial Advisory Board of the program. Available resources and support, as well as external factors affecting the program shall be considered.

## **2.3 Updating of the Strategic Plan**

The strategic plan shall be reviewed and updated every five years. Input from the faculty, industrial advisory board, and the students through the SCA will be considered during the review and updating of the strategic plan.

## **3.0 Program Assessment Plan**

The intent of the Assessment Plan is to provide the framework to provide evidence of the program's effectiveness in preparing construction practitioners.

### **3.1 Program Mission Statement**

As stated in Section 1.0, the mission statement is:

The CM degree program mission is to educate, mentor, and inspire students so that each graduate is prepared for a career of professional excellence and service to the construction industry.

### **3.2 Degree Program Objectives**

In order to meet its mission and goals as outlined in the strategic plan, the construction management program will produce graduates that shall be able to:

1. *Create written communications appropriate to the construction discipline.*
2. *Create oral presentations appropriate to the construction discipline.*
3. *Create a construction project safety plan.*

4. *Create construction project cost estimates.*
5. *Create construction project schedules.*
6. *Analyze professional decisions based on ethical principles.*
7. *Analyze construction documents for planning and management of construction processes.*
8. *Analyze methods, materials, and equipment used to construct projects.*
9. *Apply construction management skills as a member of a multi-disciplinary team.*
10. *Apply electronic-based technology to manage the construction process.*
11. *Apply basic surveying techniques for construction layout and control.*
12. *Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.*
13. *Understand construction risk management.*
14. *Understand construction accounting and cost control.*
15. *Understand construction quality assurance and control.*
16. *Understand construction project control processes.*
17. *Understand the legal implications of contract, common, and regulatory law to manage a construction project.*
18. *Understand the basic principles of sustainable construction.*
19. *Understand the basic principles of structural behavior.*
20. *Understand the basic principles of mechanical, electrical and piping systems.*
21. *Think critically.*

Since these are the same as the Student Learning Outcomes (plus one) that are assessed, the assessment of the SLOs functions as the assessment of the Program Objectives.

### **3.3 Program Learning Outcomes**

The program learning outcomes are the same as the ACCE Student Learning Outcomes, plus the ECU mandated SLO of thinking critically.

Upon graduation from the ECU Construction Management Program, a graduate shall be able to:

1. *Create written communications appropriate to the construction discipline.*
2. *Create oral presentations appropriate to the construction discipline.*
3. *Create a construction project safety plan.*
4. *Create construction project cost estimates.*
5. *Create construction project schedules.*
6. *Analyze professional decisions based on ethical principles.*
7. *Analyze construction documents for planning and management of construction processes.*
8. *Analyze methods, materials, and equipment used to construct projects.*

9. *Apply construction management skills as a member of a multi-disciplinary team.*
10. *Apply electronic-based technology to manage the construction process.*
11. *Apply basic surveying techniques for construction layout and control.*
12. *Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.*
13. *Understand construction risk management.*
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17. *Understand the legal implications of contract, common, and regulatory law to manage a construction project.*
18. *Understand the basic principles of sustainable construction.*
19. *Understand the basic principles of structural behavior.*
20. *Understand the basic principles of mechanical, electrical and piping systems.*
21. *Think critically.*

### **3.4 Assessment Tools**

Each SLO from section 3.3 will be evaluated with one direct and one indirect assessment tool. It is anticipated that after a few cycles of assessing and evaluating, these assessment tools will remain the same from year to year.

The direct assessment tool will be a whole or part of an assignment or examination that is part of a course grade. If a group project is used, group member involvement will be assessed.

The indirect measure will be a student exit survey, given to graduating seniors. Each SLO will be measured on a 1 – 5 scale.

### **3.5 Performance Criteria**

The minimum performance criteria for each direct assessment shall be 70% of the students attaining a 70%.

The minimum performance criteria for each indirect assessment shall be a 3.5 on a 1 to 5 scale.

### **3.6 Evaluation Methodology**

Individual faculty will collect and analyze the data for the direct assessment measures they are assigned. If a particular SLO falls below the performance criteria, the faculty

member will recommend an action to improve student performance, or if the performance criteria is met, the faculty member will recommend ways to ensure compliance. Recommending a lowering of the performance threshold is not acceptable. Data and recommendations will then be forwarded to the program coordinator, who will lead a discussion of the SLO evaluations at Assurance of Learning Day.

The program coordinator will collect the indirect senior exit surveys and compile the data, to be discussed at Assurance of Learning Day.

### **3.7 Review of Assessment Plan**

The assessment plan shall be reviewed annually by the faculty during the Assurance of Learning Day held university wide in late September. Appropriateness of the objectives, outcomes, assessment tools, performance criteria, and evaluation methodology shall all be examined by the faculty.

### **3.8 Updating of the Assessment Plan**

The assessment plan shall be reviewed and updated every five years. Input from the faculty, industrial advisory board, and the students through the SCA will be considered during the review and updating of the assessment plan, especially the formulation of the student learning outcomes (SLOs).

## **4.0 Assessment Implementation Plan**

This assessment implementation plan is intended to ensure that the program is making progress in achieving its mission, objectives, and learning outcomes.

### **4.1 Assessment Cycle**

Due to SACS COC accreditation, direct and indirect assessment tools will be used each year for each SLO. The data will be compiled for each SLO by the assigned faculty member. All SLO assessments will be discussed at the Assurance of Learning Day in September of the following year.

### **4.2 Analysis of Data Collected**

The analysis of the SLO assessment data will be conducted by the faculty member when compiling the data to be discussed during the Assurance of Learning Day. Results of this analysis will be kept by the program coordinator.

### **4.3 Changes Implemented**

Changes implemented by the program during assurance of learning day will be recorded and kept by the program coordinator.

### **4.4 Documentation of Results, Analysis, and Changes Implemented**

Results of the assessment tools, analysis of the data, and changes implemented as a result of the assessment evaluation will be compiled by the program coordinator, and placed on the construction management program website as part of the ACCE Public Disclosures document. A summary of actions taken for poor performance will be kept for at least 5 years.

### **4.5 Review of Assessment Implementation Plan**

The assessment implementation plan and appropriateness of the process shall be reviewed annually by the faculty during the Assurance of Learning Day held university wide in late September.

### **4.6 Updating of the Assessment Plan**

The assessment plan shall be reviewed and updated every five years. Input from the faculty, industrial advisory board, and the students through the SCA will be considered during the review and updating of the assessment plan, especially the appropriateness of the direct assessment tools being used.