

**Colorado State University**  
**Department of Construction Management**  
Updated Spring 2012

## **Academic Quality and Outcome Assessment Plan**

### **1. Background**

#### ***1.1. Introduction***

This document presents the plan approved by the Department of Construction Management (CM) for the assessment of its undergraduate degree academic quality and effectiveness; this scope does not include assessment of individual instructors. This document also reviews implementation aspects of the plan, including the reporting and publication of its results.

The department recognizes the importance of a strong and continuous assessment of its academic quality and outcomes to realize its vision and mission. To accomplish this goal, the protocols and instruments presented here are managed and interpreted by the CM Assessment Committee. Reports resulting from this assessment are periodically provided to the department head, other academic and administrative units within the department and to the entire department's faculty. The Assessment Committee reports are publicly available and serve as the basis for assessing the department's quality and outcomes.

#### ***1.2. Department's vision and mission***

The department's Vision and Mission are critical for this assessment plan, since they signal the primary direction chosen by its faculty and administrators. These statements are:

***Vision:*** The Department of Construction Management will attain prominence as the country's highest quality construction education program, forging collaborations among disciplines with similar interests and also among industry, alumni, and international partners.

***Mission:*** The mission of the Department of Construction Management is to advance the knowledge and practice of construction management for the betterment of society through teaching, applied research, and service to local, national, and global communities.

### **2. Assessment tools**

#### ***2.1. Summary of Evaluation Instruments***

A combination of direct and indirect data collection methods are used to gauge the progress of the department in obtaining the overarching objectives and goals as stated in the CM Vision and Mission. These instruments complement each other. Each one is especially useful to the assessment needs of a

segment of the CM Department’s diverse constituencies and stakeholders, and all provide insight to the objective evaluation of academic quality and outcomes.

Table 1 shows the assessment tools used by the department and identifies which constituency each tool addresses. Moreover, each instrument is categorized as *formal* or *informal*, depending respectively on whether its data proceeds from written surveys and comments or from verbal, informal interviews.

**Table 1.** Matrix of Assessment Tools Used

Assessment Instrument	Stakeholders						Time of Year
	Students	Alumni	Benefactors	Industry/Employers	Faculty & Administrators		
1. Standard ASCSU Course Survey ( <i>formal</i> )	X						F, Sp, Su
2. Senior Capstone Course ( <i>formal</i> )	X			X	X		F, Sp
3. AIC CQE Level 1 Exam ( <i>formal</i> )	X			X			F, Sp
4. Senior Exit Survey ( <i>formal</i> )	X						F, Sp
5. PADB Curriculum Review Committee ( <i>formal</i> )		X		X	X		On- going
6. Alumni Survey ( <i>formal</i> )		X	X	X			Annually
7. Employer Survey ( <i>formal</i> )			X	X			Annually
8. Open Forum ( <i>informal</i> )	X						F, Sp
9. PRISM ( <i>formal</i> )					X		On- going

## 2.2. Description of Key Instruments

- 1. ASCSU Course Survey.** Near the end of every semester, students in all courses are asked to fill out the standard course survey used at CSU and developed by its Teaching and Learning Committee and the Associated Students of Colorado State University (ASCSU). This survey summarizes student perceptions about a course environment and teaching effectiveness. Results from course surveys are used by faculty for formative purposes such as quality assurance and improvement. They are also used for summative purposes in each faculty’s annual evaluation process. The core ASCSU Course Survey is supplemented by asking each student their perception of how well each learning objective listed in the course syllabus was achieved. The Assessment Committee only considers this supplemental material in their annual report.
- 2. Senior Capstone Course.** Construction Management Professional Practice – CON 465 is a senior-level capstone course that explores professional practice as a constructor that requires an understanding of the working and contractual relationships among all participants in any project process. The proficiency

of each student in these crucial aspects is evaluated by a combination of department professors and industry representatives. Each semester, students entering the Senior Capstone course (CON 465) are required to take a quiz at the beginning of the semester. The purpose of this quiz is to provide a quick assessment of their knowledge in various areas of construction. There are 30 questions covering eleven areas. Students are given this quiz the second week of class as an unannounced quiz. It is also important to note that no reviews are given to prep students for this quiz. An overall assessment of the course by the course instructors is provided to the Assessment Committee in the form of an annual oral report.

3. **AIC Construction Fundamentals (CQE Level 1) Exam.** Students in the CON 465 capstone course are strongly encouraged, but not required, to take the American Institute of Constructors (AIC) certification exam for its CQE Level 1 certification. This eight-hour exam gauges academic proficiency in 10 key areas of the CM profession. This paid exam provides students with the opportunity for individual CQE certification and its results are provided to the department by the AIC. The results include a summarized comparison of the department's student scores in each tested area against the mean score at the national level.
4. **Senior Exit Survey.** All graduating seniors are asked to fill out an online exit survey. This survey serves multiple functions. It gathers feedback from students on the whole of the construction management program, the effectiveness of their courses, where they have found employment, their salaries, and their positions. Administration of the senior exit survey is overseen by the Phelps Placement Office in the CM Department.
5. **PADB Curriculum Review Committee.** This committee is comprised of members from the Professional Advisory Development Board (PADB) and department faculty. The purpose of this committee is to review the CM curriculum and individual courses to ensure course quality and to suggest improvements. The Assessment Committee considers the minutes and reports from this group as important input to the assessment process.
6. **Alumni Survey.** The CM Department surveys its alumni upon graduation with the senior exit survey and again 5 years after graduation with the alumni survey. The alumni survey is sent to students reaching their fifth year as CM alumni. The purpose of this survey is to determine the success of past graduates of the CM program and how well they felt their degree prepared them for their future careers. Survey results also help identify areas for improvement in the CM curriculum. Administration of the alumni survey is overseen by the Assessment Committee.
7. **Employer Survey.** The companies that attend the CM Career Fair every fall and spring are major employers of the department graduates. Employers attending a career fair are formally surveyed to evaluate the strengths and weaknesses of graduates from the CSU CM Department. Results from this survey are then correlated in the Assessment Committee's Annual Report to the senior exit survey and the alumni survey to identify commonalities and trends. Administration of the employer survey is overseen by the Phelps Placement Office in the CM Department.
8. **Open Forum.** The department head conducts an open forum each semester, consisting of a brief presentation of the department's status followed by a question and answer session. The questions,

concerns and praise are discussed in subsequent faculty meetings. This forum is between the department head and the students. Faculty are specifically excluded to allow students to speak freely about courses.

9. **PRISM.** The Plan for Researching Improvement and Supporting Mission (PRISM) is a mandated CSU university-wide systematic process for continuously improving academic programs in three areas: (1) student learning (including undergraduate and graduate education), (2) faculty research/scholarship, and (3) faculty service/outreach. The process also includes improvement planning for student services and academic support areas. PRISM's assessment process is unique in several areas. Each year, the CM department must develop a list of objectives covering each of these areas. The quality of these objectives is independently assessed by a committee appointed by CSU's Office of Assessment. The outcome of each stated objective is evaluated by the same committee the following year, and the department must establish remedial measures for any weakness detected by the process. The feedback received from the CSU's Office of Assessment is considered important input to the CM Department's assessment process and annual report.

### **3. Plan implementation**

#### **3.1. CM Assessment Committee**

The CM Department Assessment Committee is one of the department's standing committees, with its composition and duties described in the CM Department Code. An essential charge of the committee is the interpretation of the assessment instruments described in this plan. The committee provides input on their content and data collection protocols whenever possible, while the department staff processes the information from these tools and provides the compiled data to the committee. The committee evaluates the data and reports its evaluation of the tools' combined insight. This committee meets at least twice each academic semester.

#### **3.2. Reporting**

The Assessment Committee reports the results of its evaluation to the CM Department faculty and staff, PADB, university administrators, and other constituencies including the public at large. The CM Department Head is kept continuously informed of the committee's activities and findings. Moreover, the Committee's chair can inform other department committees of ongoing activities in the Assessment Committee and obtain feedback from these other committees.

A formal report on Academic Quality and Effectiveness will be provided annually to the department faculty, administrators and staff. This report will identify both areas of success and areas of potential improvement based on the analysis of the assessment tools identified in this plan. It will not assess performance of individual instructors. Based on this report, the Department Head will identify the appropriate faculty, staff, and/or department committee(s) to address identified areas of improvement. Progress in these areas will be included in the next annual assessment and report cycle.

A preliminary version of the annual report can be presented to the PADB and used to develop the annual PRISM plan, with the approval of the department head. The final report (including any amendments) will be presented and discussed at a faculty meeting and will be approved by the department head and positively voted by a simple majority of the faculty present (or with a designated proxy) at a scheduled department meeting. Notice of the approval vote will be given at least one week in advance of the department meeting when the vote will be held. The final version of the report will be published and available on the department’s website and will be available in the CM Department’s front office.

### 3.3. Actions

The Assessment Committee’s charge centers on the administration and interpretation of the tools used to gauge the department’s academic quality and effectiveness of intended outcomes. Specific actions resulting from the committee’s deliberations and reports will be developed and carried out by the administrators, committees or units within the department whose responsibilities are best suited for the appropriate remedy or commendation.

