Drexel University
Construction Management Program (CMP)
Quality Assessments
Document Outline:

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I. Vision & Mission Statements

Drexel University’s Mission Statement

Drexel University fulfills our founder’s vision of preparing each new generation of students for productive professional and civic lives while also focusing our collective expertise on solving society’s greatest problems. Drexel is an academically comprehensive and globally engaged urban research university, dedicated to advancing knowledge and society and to providing every student with a valuable, rigorous, experiential, technology-infused education, enriched by the nation’s premier co-operative education program.

College of Engineering Vision:

The College of Engineering will be regarded for its impact in society’s greatest challenges through focused research, boundary spanning education and continuous innovation.

College of Engineering Mission:

The College of Engineering graduates engineers who are dedicated to discovery and the application of technology to promote economic development and improve the quality of life.

CMP Vision:

The Construction Management program at Drexel University is committed to being the preeminent center for the advancement and dissemination of construction knowledge.

CMP Mission Statement:

The Drexel University Construction Management (CM) Program is dedicated to raising the levels of professionalism, integrity, ethical practice, and performance within the construction industry.
II. CMP Assessment Mission & Goals

**CMP Assessment Mission**

To be an innovative, learning-centered construction management program recognized as a leader in education and a vital link to the construction industry. In order to reach our vision, we are embracing the concept of assessment as a continuous source of information essential for improving student learning outcomes, improving our program, and our teaching and learning methods and strategies. While there are many similar definitions of assessment, Drexel University, Construction Management Program has chosen the following:

“Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches expectations and standards; and using the resulting information to document, explain, and improve performance. When it is embedded effectively within larger institutional systems, assessment can help us focus our collective attention, examine our assumptions, and create a shared academic culture dedicated to assuring and improving the quality of higher education.” ¹

**CMP Assessment Goals**

1. To foster a program view of assessment as a necessary response to a demand for accountability with an understanding that assessment is a continuous process and source of information for instructional improvement.
   a. Plan and assess program, course and classroom learning on a continual basis. (See Chart 1- CMP Assessment Flow Chart).
   b. Support and foster faculty ownership of the assessment process.
   c. Demonstrate administrative support through the maintenance of an adequate budget for assessment activities.
   d. Inform students of the types of and reasons for assessment activities.
   e. Integrate assessment strategies in the development of new courses and programs.

2. To respond to accreditation demands, specifically American Council for Construction Education (ACCE) assessment and accreditation criteria.
   a. Provide information and resources to the CMP to garner ACCE accreditation.

3. To train faculty and staff in assessment processes and serve as a college-wide resource.
   a. Recommend, develop, and implement faculty and staff assessment training.
   b. Send committee members to assessment conferences and workshops.

¹ AAHE Bulletin, November, 1995, p.7)
4. To facilitate the feedback of assessment results into program, course, and classroom planning.
   a. Publish minutes of the assessment review committee meetings.
   b. Coordinate assessment activities and feedback with College of Engineering strategic planning and budget processes.

5. To develop, implement, and improve the assessment process.
   a. Assess and research methods, strategies, and processes for the purpose of ongoing improvement.
   b. Share and collaborate on assessment activities and outcomes both internally and externally.
   c. Oversee assessment plans, instruments, and data collection.
III. CMP Assessment Flow Chart

Drexel University / College of Engineering

Mission Statements

Step 1 -- ASSESSMENT PLANNING
CM Program Vision & Mission Statement → Program Objectives and Outcomes → Assessment Strategies for Program Objectives and Outcomes

Step 2 -- ASSESSMENT AND DATA ANALYSIS
Collect, record, and tabulate the assessment data → Analyze the assessment data and make recommendations for program, course and classroom improvements

Step 3 -- PROGRAM IMPROVEMENT
Outcome Assessment Coordinator to prepare and submit the Annual Assessment Report and Improvement Plan ["Report"] for review
During special scheduled meeting, Report reviewed by CMP faculty/staff and specific recommendations are made for program improvements, if deemed necessary.
If deemed necessary, implement the proposed changes, revise the program assessment plan, and continue program assessment process
Share the Program Assessment Report and Improvement Plan with the College of Engineering Strategic Planning Committee

Figure 1
IV. CMP Assessment Methods

Assessment Measures

Program outcomes can be assessed using both direct and indirect measures. Direct assessments are tests, Pre/Post Testing, projects, papers/theses, case studies, and portfolios, oral and written exams. Indirect assessments are self-report measures such as surveys (course, program, and university levels). These can include employer, student, and graduate satisfaction.

Program-Level Assessment Methods

Some of the methods that can be used for the program-level assessment purposes are:

1. **Capstone course/Co-op experience** - A capstone course, project, or practical experience integrates the knowledge, concepts and skills associated with an entire sequence of study within a discipline or program. The structure and content of a capstone experience is linked to a discipline/program's goals and objectives for student learning. Capstone experiences provide students with a forum to combine various aspects of their program/discipline experiences. Capstone experiences provide faculty and programs/disciplines with a forum to assess student academic achievement in a variety of knowledge and skills based areas by integrating their educational experiences.

2. **Co-op Work Experience** - Performance in a real-world setting is assessed by employers. Students are assessed in their program/discipline specific job skills, knowledge and in their ability to interact professionally.

3. **Current Students Surveys** - Data gathered by these measures are an indirect assessment of student learning since they measure satisfaction and impressions of educational experiences rather than knowledge and skills acquired. However, when combined with direct measures of learning, indirect assessments can provide a comprehensive view of means to enhance student academic achievement.

4. **Graduating Students Surveys and Exit Interviews** - these surveys/interviews may assist in understanding the educational needs of our students. Students can provide us with important information about both our curriculum and CO-curricular activities. Information can include student insights on educational experiences, what they like or dislike about different instructional approaches, impressions about the classroom environment, program equipment and technology levels, and perceived benefits from student and instructional support services.

5. **Alumni Survey** – a 6-Month and 3-Year surveys will be conducted in order to ascertain alumni’s feedback of different aspects of the CM academic program.

6. **Employer surveys** - Employer surveys provide useful information about the curriculum, programs, and students that other forms of assessment cannot provide. Employers provide information about skill levels of recent graduates, abilities to communicate effectively verbally and in writing, specific program competencies, and abilities to utilize current program-specific technology. Employer surveys help us determine the relevance of educational experiences and programs.
7. **Faculty & Adjunct Performance Evaluations** – the key component of any quality program is the strength of the full-time and adjunct faculty. The comprehensive annual performance evaluation of faculty performance, relative to teaching, services and scholarship activities will be utilized.

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**Guiding Operating Principles for Student learning assessment**

**Definition**: Student learning assessment is a faculty-driven process that systematically gathers, interprets, and uses data for the purpose of improving the quality of student learning.

Construction Management Program (CMP) has adopted five useful and important operating principles\(^2\) that should govern student learning assessment.

1. The purpose of assessment is improvement of academic programs;
2. Assessment of student learning and development will be a collaborative process involving faculty, staff, and students;
3. Assessment will be guided by the University’s and Program’s mission;
4. Assessment results will not be used for faculty and staff evaluation; and
5. The assessment process will itself be evaluated.

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**Classroom Assessment Methods**

Classroom assessment methods can be formative or summative. **Formative assessments** are employed during the course of a learning experience, as a source of feedback to improve teaching and learning. CATs are formative assessments used to improve teaching and learning. Examples of Classroom Assessment Techniques (CATs), includes: Chapter/ Unit assignments, home works, quizzes, discussion forums, and teacher feedback on work in progress. **Summative Assessments** measure what students have learned at the end of some set of learning activities. An example would be a final comprehensive exam or project given at the end of a course.

The learning process occurs when the planning and design of classroom activities result in desired student outcomes. Student learning activities can include:

- study a text book and other sources of information
- perform course and lab activities
- participate in distributed learning assignments
- demonstrate skills and techniques
- respond to a variety of other-directed activities or assignments.

A faculty member can use Classroom Assessment Techniques (CATs) to gather feedback about a single lecture/discussion, to examine the grasp of key concepts and issues of a topic to assess learner reactions to instructional activities. Feedback from classroom assessment techniques can impact learning in two important

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\(^2\) Palomba and Banta (1999)
ways. First, when a faculty member shares results of the CAT with students, that feedback can assist students in recognizing their strengths and weaknesses with content knowledge. This will help students develop higher-order thinking skills, prepare for future topics, and even help them understand how they learn best. Second, the results of the CATs can help faculty identify the student's current understanding of the topic, prepare for upcoming instruction, build upon what students currently know, and fill in knowledge gaps that can keep a student from progressing. CATs are brief and adaptable to a variety of learning environments. CATs can be conducted on a routine basis at the beginning or ending of class, in labs, internships, and in online classes. CATs can assist faculty in enhancing student success and improving academic achievement.

V. Administration of Assessment

Outcome Assessment Coordinator

The Outcome Assessment Coordinator is designated full-time faculty whose responsibilities are to coordinate the program quality assessment activities. In addition, he/she will coordinate preparation of the Annual Assessment Report and Improvement Plan ["Report"]. This Report will serve as the basis for review, discussions and generation of recommendations. The process will incorporate the input from all full-time faculty and staff members.

Responsibility of the Faculty

An important characteristic of an effective assessment program is that it is "faculty-owned and driven." In essence, this means that there must be active and ongoing participation in all phases/stages of assessment. This is important because the curriculum is the under purview of the faculty. Assigning intended outcomes is a faculty responsibility; therefore, assessing the curriculum should be as well. Faculty must also use the results of the assessment data to strengthen and improve the curriculum and to improve student learning. Faculty assessment activities include:

- Conduct classroom assessments in order to focus student learning and implement instructional strategies in support of improving student learning outcomes.
- Participate in planning and conducting discipline/program assessments and then collaborate with colleagues to improve discipline/program outcomes.
- Cooperate with college-wide assessment activities, graduate and employer surveys.

Responsibility of the Students

In order for assessment to work, students must be active participants. Assessment information that directly demonstrates student learning starts with the students themselves. The basic responsibilities of our students are to participate in both the direct assessment activities (tests, products, portfolios, etc.) and indirect assessment activities (interviews, surveys, focus groups, etc.). Other roles that students can assume in assessment are:

- Participate in assessment activities
- Provide feedback and comments on activities
Facilitate assessment activities by acting as assessors themselves. (Critiquing class projects and presentations of others students, group work evaluation, etc.)

Responsibility of the Administration

Responsibility for assessment is college-wide and is shared by faculty, staff, students, and administration. While the primary responsibility for assessment of student academic achievement rests with faculty, administrators play a crucial role in management and delivery of resources and in the provision of effective responses to challenges. Administrator responsibilities include:

- Encourage and support outcomes assessment at all levels
- Facilitate faculty, discipline and program changes as designed by faculty in response to assessment findings
- Encourage cross-division and institution-wide dialogues and activities supporting assessment efforts
- Strengthen and support curriculum, discipline/program, and student support services where challenges have been identified through assessment activities
- Express publicly personal and institutional commitment to assessment of student learning and use of its results by college and program chairs and other academic administrators
- Use of professional development grants and other incentives, recognition, and rewards for faculty involved in assessment activities at the program, college, and university level
- Integrate the assessment process into the planning and budgeting processes of the college so that academic approved plans for measuring student learning, costs associated with carrying them out, and subsequent changes to the CM Program wish to test to determine if they would increase student academic achievement, are routinely incorporated into CM Program’s plans and budget requests.

Available Resources and Tools

Drexel University supports faculty and staff in building assessment knowledge and skills. Assessment is a wide-ranging and dynamic process. Assessment resources can include, for examples, allowing faculty and staff to attend professional development conferences and workshops on assessment, when possible.

VI. Conclusion

Drexel University, Construction Management Program’s assessment activities are intended to produce an ongoing process of assessment of student academic achievement, reporting results, creating improvements, and evaluating the effects of improvements. The external impetus for outcomes assessment comes from ACCE criteria; the internal impetus is to achieve Construction Management Program’s stated purpose, vision, mission, and goals. Improvements in student learning and outcomes increase the likelihood that alumni will reach full potential and be better prepared to contribute to family, community, and world-class professional excellence.