

Revised Assessment Plan (DRAFT)
Construction Management Technology Program
College of Engineering, Architecture and Technology
Oklahoma State University
Fall 2002

1. Name of Academic Program

Construction Management Technology

2. Degree Programs Assessed Under This Plan

B.S. in Engineering Technology
Construction Management Technology, Building Option
Construction Management Technology, Heavy Option

3. Program Mission

The mission of the Construction Management Technology (CMT) programs is to provide well-educated, employable professionals through curricula incorporating liberal and professional education components, emphasizing advanced level courses within the major and in supporting disciplines.

4. Program Goals

Four overarching goals for the academic programs are listed below. Some specific desired student outcomes are listed *in italics*.

1. To recruit high-quality students for the CMT programs and to retain students once they enter the programs until they graduate. (NOTE: This document is concerned with program outcomes assessment. This goal relates to providing the student base necessary for successful programs. While this clearly is an essential component of the total departmental teaching mission, it does not pertain directly to the assessment of student outcomes.)

2. To provide students with empathetic assistance in adjusting to the college experience and regular, professional, and correct guidance in meeting graduation requirements.

*Qualified students will complete their degree plans in a timely manner.
Students will be satisfied with academic advisement in the department.*

3. To provide effective, high-quality resident instruction in the latest technologies in disciplines related to management of construction projects.

Graduates will generally be satisfied with academic instruction in the department.

4. To ensure that students possess the skills and experience necessary to meet the employment needs and expectations of the construction industry.

Graduates will compete successfully for positions in the construction industry. Graduates will have learned practical construction management techniques through formal academic instruction and experiential learning; every graduate will have had “real world” experience through two internships.

5. Program Objectives for Goals 2, 3 & 4

Goal 2: To provide students with empathetic assistance in adjusting to the college experience and regular, professional, and correct guidance in meeting graduation requirements.

2.1. To have all CMT students express satisfaction with undergraduate academic advising.

Assessment: Each graduating class will be surveyed through an exit interview or questionnaire to determine the degree of student satisfaction with the CMT advising program.

2.2. To have all eligible students cleared for graduation when final deficiency lists are issued for each graduation date.

Assessment: Each semester, College-issued graduation deficiency lists are analyzed by the CMT Department Head to determine any chronic problems. Solutions are developed jointly by the Head and the entire CMT faculty.

Goal 3: To provide effective, high-quality resident instruction in the latest technologies in disciplines related to management of construction projects.

3.1. To provide a high quality general and professional education that is competitive with the best Construction Management programs in the nation.

Assessment:

3.1.1. CMT Core Curriculum. *Competency in the area of General Education is targeted for mid-level assessment on a university-wide basis. CMT has developed a core of Lower Division courses that must be completed before admission to the Upper Division is granted. This core includes general education, technical specialty and major courses. A grade of “C” or better is required in all courses that are prerequisites for required courses. This is a measure of cognitive outcomes.*

3.1.2. GPA in the Major. *The GPA within the major is one measure of the quality and effectiveness of our courses. The Major GPA is calculated for all courses with Engineering or Engineering Technology prefixes, and graduates must have a Major GPA of 2.30 or higher. Grade point averages are measures of cognitive outcomes.*

3.1.3. Student Survey of Instruction. *Present departmental and university policies require student evaluation of all lecture and laboratory courses using a standardized form. Results are analyzed by UTES and returned to the instructor, who can then make course improvements as indicated. While the data and comments generated by this evaluation are primarily for internal use, they are an integral part of the Continuous Quality Improvement (CQI) process.*

3.1.4. Intercollegiate Student Competitions. Students are chosen each year, through competitive auditions, to represent the CMT department and OSU in Regional Student Competitions involving programs in Oklahoma, Texas, Louisiana and Arkansas. Each team consists of six students (and one or two alternates), and they compete in three different areas – Construction Management, Design-Build, and Heavy/Highway. First Place teams are chosen to represent the region in the national competitions.

Placement in these events can be used as one external measure of program quality. The team coaches are faculty members, and they can use the competition results to identify areas of strength and weakness. The aggregate faculty then applies this knowledge to make appropriate curricular adjustments. Student performance in intercollegiate competitions is a measure of cognitive and affective outcomes.

3.1.5. Exit Interviews. All graduating seniors are afforded an opportunity to participate in an exit survey that gathers information about the curriculum, job placement, and overall student satisfaction. This survey generates data that is used by the Industry Advisory Committee to recommend and the faculty to implement constructive curriculum changes and procedures. The IAC is an integral part of the CMT CQI process. This is a measure of affective outcomes.

3.1.6. Standardized National Examination. Each graduate is required to sit for the Constructor Qualification Examination, Level I (CQE I) in his or her final semester. The CQE I is administered to evaluate the student's level of assimilation of a certain "Body of Knowledge" expected (by the construction industry) of graduates of baccalaureate construction programs throughout the U.S. The exam covers ten curricular areas common to all such programs and represents what an entry-level employee should know. Test results reported to the institution reflect the performance of the tested group as a whole in each of the subject areas, and the number of passing and failing students at the institution and nationally. The test results are shared with all CMT faculty, and the results may be used to identify areas of strength and weakness, which can then dictate appropriate curricular or subject emphasis changes.

Goal 4: To ensure that students possess the skills and experience necessary to meet the employment needs and expectations of the construction industry.

4.1. To ensure that all graduates have accepted positions in the construction industry before graduation, that their job titles are consistent with the CMT educational programs, and that their starting salaries are consistent with the national average.

4.1.1. *Graduating senior exit surveys (see 3.1.5 above) reveal placement statistics regarding employer, job title, starting salary, benefit programs, geographical location, and other information of interest to the CMT department and the IAC. Each year, Engineering News-Record (ENR) publishes a special issue highlighting educational programs in Construction, including average starting salaries, number of organizations recruiting the graduates, and other data of interest. The Associated Schools of Construction (ASC) also publishes similar survey results. These reports give reliable national benchmarks against which the OSU CMT program graduates may be measured.*

4.2. To ensure that students are receiving the subject-matter training that employers expect in an entry-level employee with a Bachelor's Degree.

Assessment:

4.2.1. Internship. All CMT students are required to participate in CMT 3331 – Construction Practicum I (one credit) and CMT 3332 – Construction Practicum II (two credits). Each internship requires 400 hours of documented work experience in the construction industry. Students participate in a formal evaluation by their employers, which provides input on how well they were prepared for their jobs and how they performed in several key areas. A couple key questions posed to the employer are “Given the opportunity, would you recruit this student for a permanent position with your company? – why or why not?” and “How did this intern perform relative to others with similar experience and education?” Students also prepare a written report summarizing their activities, how well prepared they were for their responsibilities, and how their jobs related to their educational experience. The 3332 students also present an oral report to the CMT 1214 – Introduction to Construction class during the fall semester following their summer work. The survey results are shared with all CMT faculty, who then formulate appropriate curricular changes. Student evaluations are measures of cognitive outcomes, and employer evaluations are measures of both cognitive and affective outcomes.

4.2.2. Industry Advisory Committee. The entire CMT faculty meets once each semester with the IAC which represents a broad cross-section of the construction industry. These meetings provide opportunities for direct input from industry as to perceived quality of the programs. The committee also meets with a group of students (without faculty present) to obtain their candid views on program and curricular issues.

4.2.3. Alumni Surveys. The CMT department has participated in these surveys since their inception by the OUA. Program-specific questions have been developed to be included with the OUA surveys. CMT has also conducted several independent surveys in the past. The results of these surveys are shared with the CMT faculty, and appropriate program improvements are made. Alumni surveys are primarily measures of affective outcomes.

6. Student Involvement in the Assessment Process

Students are involved at several points in the Assessment Process: Internship reporting and evaluations; Individual course evaluations; Graduating senior exit interviews; Graduating senior CQE I results; Student interviews with the IAC; Alumni surveys and interviews.

7. Feedback

All assessment results are available to the entire CMT faculty, in summary form through the annual Department Assessment Report to the OUA, and in the raw data that is the basis for the annual report. Summary data is also shared with the IAC, and through close interaction with this body, the faculty works together to identify areas of strength and weakness and formulates appropriate program changes.

8. Time Line

The initial assessment model was submitted in 1992 and was revised in 1993. Assessment activity has been on-going since that time, and program development has been consistent with assessment results.