

Department of Civil Engineering & Construction Management
College Of Engineering and Computer Science
California State University-Northridge
Northridge, CA
Construction Management Program

PROGRAM PUBLIC INFORMATION

The department advertises the Construction Management Program in the following ways:

- The program web site at <https://www.csun.edu/engineering-computer-science/civil-engineering-construction-management/construction-management-technology>
- Handouts that describe the program and the prerequisite requirements.
- Updated PowerPoint presentations to Community Colleges and nearby high schools.
- Info-sessions where companies present their work to CSUN students.
- Career Fairs scheduled throughout the academic year.

Under the direction of the Department Chair and in consultation with the Department Faculty, the Program Coordinator develops and/or oversees the development of all published materials.

The Construction Management Program uses a variety of sources to publish program information. Each source is designed to reach students at different points in their academic development. The Departments website can be accessed by anyone interested in the program, whether or not they are students at California State University Northridge. The website is used to inform the public not only about the program, but also about careers in Construction Management. The California State University Northridge General Catalog and the program specific department handouts are used by students attending California State University Northridge or those planning on attending.

Listed below are some of the many ways that the CM Program disseminates information to the public.

- CSUN's Information Sessions – Throughout the year, the University organizes various annual information sessions that the CM Program participates in. Example programs are New Student Orientation in August, Transfer Student Information in August, and Open House sessions in April.
- Advising Sessions – The Program Advisor meets with prospective students throughout the year to inform them of opportunities in the construction industry, to

work with them in completing their prerequisites, and to advise them of the various resources available.

- CM Program's Website – This website provides a variety of information about the program, its prerequisites, and the industry at large.
- CSUN General Catalog – the University catalog is organized to provide a comprehensive overview of the programs and courses offered at CSUN. The CM Program is represented in this catalog.
- Department Handouts – A variety of handouts are utilized by the program to advertise and educate the public about the program and its requirements.
- Direct Inquires – Often, individuals learn of the program by word of mouth. Typically, they will call or stop by the Department and will be given an advising appointment for the information they request.
- Community College Advisors – The Department works closely with the community college advisors so students attending these schools are aware of opportunities in the construction industry. In addition, the Department works to insure that the community college advisors understand the current prerequisite requirements.
- CSUN Advisors – Students who do not make a definite choice of a major when entering CSUN are designated undecided students. An advisor in the counseling center at the University level will assist them until they decide on a major. The Department would advise them if they contact the Department. Prerequisite requirements are clearly presented online in the CSUN course progress system and in the University's catalog.

QUALITY IMPROVEMENT PLAN

- Strategic Plan for the Educational Unit

The Construction Management Program at California State University, Northridge has a strategic plan that engages all the constituencies (faculty, students and Industry Liaison Council members) through oral conversations, e-mails, and meetings.

- Assessment Plan for the Degree Program

The Construction Management Program assessment plan follows the following procedure:

1. Assessment of individual course outcomes (CLOs).
2. Linking the Course Outcomes to the ACCE Student Learning Outcomes (SLOs)
3. Follow a course assessment loop.
4. Program level assessment of the attainment of the SLOs.
5. Using Indirect Assessment tools.
6. Develop and conduct actions in addressing issues which are identified during the program level assessment and verify the attainment of the Program Learning Outcomes (PLOs) after the actions are undertaken.

- Assessment Implementation Plan for the Degree Program

The assessment of courses is based on a 2-year cycle. Courses are assessed to verify the achievement of the individual CLOs, which in turn will foster the attainment of SLOs and cumulatively fulfill the PLOs.

The entire PLOs, Mission and assessment methodology are reviewed every 3 years by the faculty and the Industry Liaison Council (ILC).

The Strategic Plan development started in Fall 2014 semester and has been reviewed by the faculty, staff, the Industry Liaison Council, students, alumni and employers through conversations with the different constituencies, through periodic meetings with the members of the Industry Liaison Council, and through employers during the Info Sessions, etc.

The Strategic Plan is divided into the following general categories:

1. The Vision of the CM Program at CSUN

The Construction Management Program is an educational unit dedicated to students' success.

2. The Mission of the CM Program.

The Construction Management Program helps students develop the skills and knowledge needed to successfully complete construction projects on time and within budget, adhering to construction standards and safety guidelines. Graduates will have sufficient knowledge and skills to find employment in commercial, design build, heavy civil and residential applications of the construction industry.

3. Goals and activities to achieve the Mission of the CM Program.

a. Strengthening the CM Undergraduate Program

The student enrollment in the Construction Management Program has experienced a significant increase of 67% between fall 2015 and fall 2021 semesters. The CM Program continues to participate in recruitment activities at Community Colleges and nearby high schools. The resources to serve additional students are currently adequate, however as the enrollment increases, additional funds have to be allotted to cover the additional expenditures.

The Program continues to review and adjust the curriculum to better serve the needs of the Construction Industry and to better prepare the students to the ever-changing technologies used in the field.

b. Implementation of a Minor and Certificate Program in Construction Management.

The CM Program continues to offer a minor in Construction Management to CSUN students. The students in Civil Engineering and Business Administration comprise the major number of students taking advantage of the offering.

With the increase in demand of project management education by other professionals, the CM Program developed a certificate program in partnership with the Tseng College. The Program offered a Public Private Partnership set of courses (CM601, CM602, and CM603) to institutions such as Caltrans and Los Angeles Metro. The Program will continue to explore the offering of courses to working professionals.

c. Establishing a Graduate Degree in Construction Management

The faculty of the CECM department at CSUN has decided to start the establishment of a Masters degree in Construction Management. The expected start of the degree will be fall 2023 semester.

d. Strengthening Ties with the Construction Industry

The CM Program has received strong support from the construction industry for many years. The Industry Liaison Council (ILC), which consists of employers and industry professionals, meets on a regular basis to discuss a wide range of topics on construction degree programs. Members of ILC also review syllabi, Program Learning Outcomes, and Course Learning Outcomes. The construction industry contributes to the Program in monetary ways such as scholarships and an annual golf tournament, and non-monetary ways such as guest lectures, and site visits.

To continue and strengthen the relationship with the Construction Industry, the department will continue to invite industry professionals for info sessions, guest lectures and career fairs. The Program will continue to expand the membership to the CM Industry Liaison Council.

The Strategic Plan will be reviewed twice during the accreditation cycle. All findings from the Assessment of ACCE SLOs, the Program Learning Outcomes, resource allocations, and the meetings with the CM ILC, will be presented to all constituencies and the input from the different constituencies will be incorporated in the possible changes.

Degree Program Objectives.

The CSUN undergraduate Construction Management Program prepares students for lifelong careers in the construction industry that will allow them to make productive contributions to the construction field and society, and to find job satisfaction. To accomplish this overall goal, graduates of this program should have the following Program Learning Outcomes (PLOs) during the first few years following graduation:

PLO 1: Demonstrate the managerial skills to organize and control construction projects from conception to closeout.

PLO 2: Establish a record of effective application of undergraduate educational tools to accomplish tasks assigned in the workplace.

PLO 3: Develop leadership capabilities through practical application and team building techniques.

PLO 4: Present a sense of exploration and the ability to maintain lifelong learning in the areas of emerging constructions methods and management technologies.

PLO 5: Provide evidence of strong communication skills and delivery.

The ACCE Students Learning Outcomes are mapped with Program Learning Outcomes in Table 1 below in order for us to assess the attainment of achievement.

Table 1 ACCE SLO mapping to Program Learning Outcomes

ACCE SLO	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
SLO 1	X	X	X	X	X
SLO 2	X	X	X	X	X
SLO 3	X		X		
SLO 4	X	X	X	X	X
SLO 5	X	X	X	X	X
SLO 6	X	X	X		
SLO 7	X	X	X	X	X
SLO 8	X	X	X	X	X
SLO 9	X	X	X	X	X
SLO 10	X	X	X	X	X
SLO 11	X	X	X	X	X
SLO 12	X	X	X	X	X
SLO 13	X	X	X	X	X
SLO 14	X	X	X	X	X
SLO 15	X	X	X	X	X
SLO 16	X	X	X	X	X
SLO 17	X	X	X	X	X
SLO 18	X	X	X	X	X
SLO 19	X	X	X	X	X
SLO 20	X	X	X	X	X

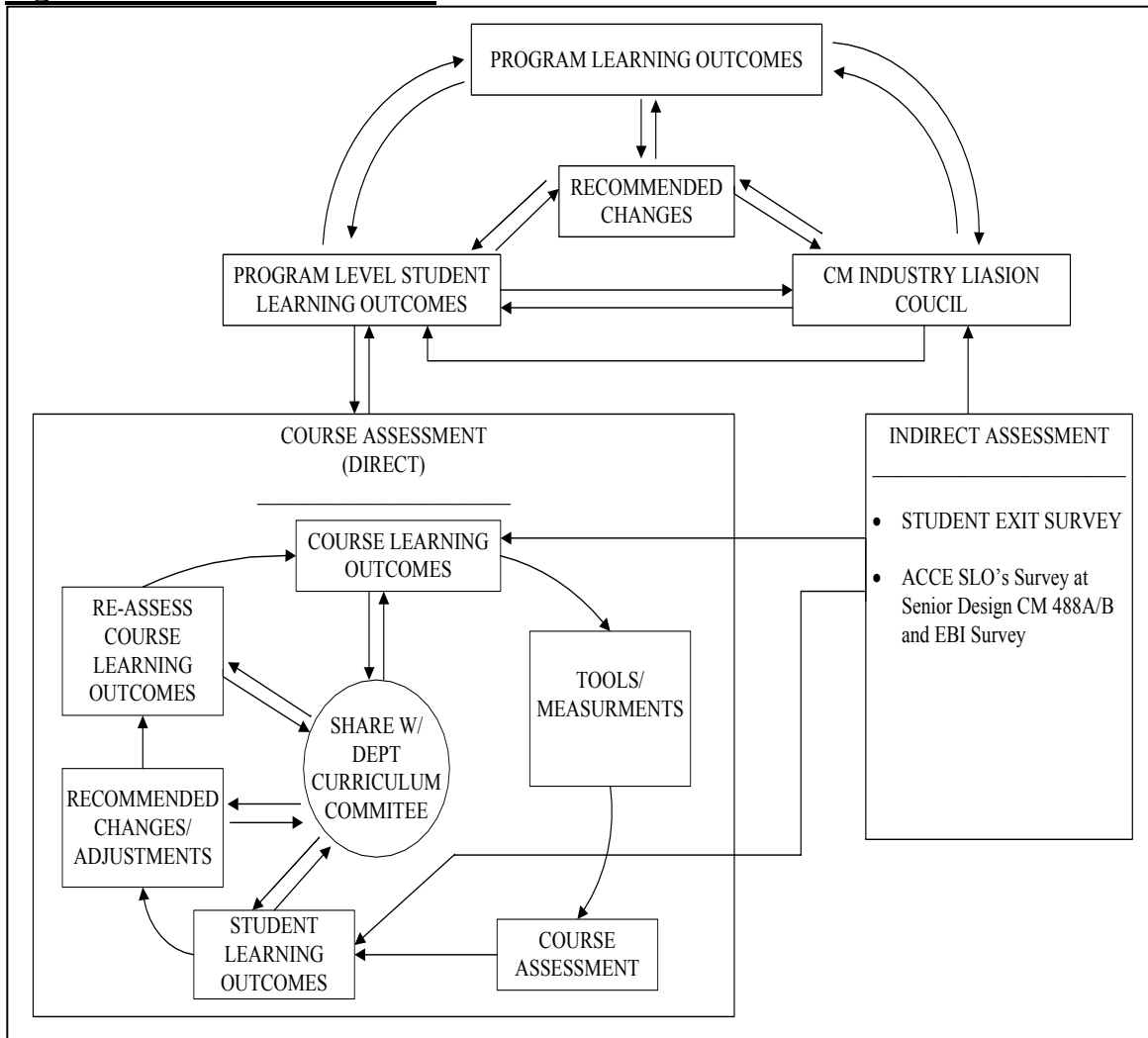
The assessment of the degree Program Learning Outcomes starts with the assessment of Course Outcomes (CLOs) and linking them to the ACCE Student Learning Outcomes (SLOs). Assessing of individual courses and verifying the attainment of the SLOs or lack thereof, implementation of recommended changes (if any), and the reassessment validate the attainment of the SLOs.

The next step in the assessment plan is to verify that the entire program attains the ACCE SLOs on the program level.

On a parallel level, the indirect assessment tools, such as student surveys in the Senior Design courses and Senior Design Project Showcase evaluations by industry professionals, provide input to the degree of attainment of the Program Learning Outcomes.

Figure 1 shows the flowchart for the assessment.

Figure 1 Assessment Flowchart



The mechanism for continuous improvement incorporates 2 loops and will follow the following process:

- Course Level Loop:
 1. Assessment of the Course Learning Outcomes (CLOs).
 2. Course Learning Outcomes will be used to ensure the attainment of individual SLOs through measurement tools and SLO assessments. As such, courses assessments are used to measure the attainment of SLOs.
 3. Overall evaluation of the Student Outcomes.
 4. SLO review and implementation of changes/recommendations for individual courses.
 5. Student Surveys in Senior Design courses and Indirect assessments for the attainment of SLOs.

6. Assessment of course outcomes after the implementations prescribed in step 4.
 7. Restart the process at step # 2.
- Program level Loop:
 1. Program Learning Outcomes are reviewed by the CM Industry Liaison Council and other program constituencies.
 2. Indirect measurements are shared with the CM Industry Liaison Council and other program constituencies.
 3. Program Level assessments are reviewed by the CM Industry Liaison Council and changes are recommended at the program level.
 4. Curriculum is reviewed by the department faculty acting as Curriculum Committee.

The mechanism will repeat every assessment cycle (every 2 years).

In addition, every three years, i.e. twice in the six-year cycle, the department will present all the findings to the Construction Management Industry Liaison Council and the students, and will seek their input on any possible changes.