

STRATEGIC PLAN 2025-2030 - CONSTRUCTION MANAGEMENT

VISION:

To be a leading Construction Management program recognized for producing industry-ready diverse professionals, fostering innovation in sustainable urban development, and transforming our communities through education and engagement.

MISSION:

To educate and empower students with the knowledge, skills, and ethical values necessary to become successful leaders in the construction industry, while fostering research, scholarship, diversity, and community partnerships that contribute to sustainable urban development.

GOALS AND OBJECTIVES:

1. Enhance Academic Excellence:

- **Objective 1:** Develop and update the undergraduate and graduate curriculum to align with industry trends, research outcomes, and best practices, integrating sustainability and technology.
- **Objective 2:** Implement outcome-based assessment methods to ensure program effectiveness and student learning outcomes.
- **Objective 3:** Engage faculty in research, publication, and professional development relevant to the construction industry that benefit students.

2. Industry Partnerships and Experiential Learning:

- **Objective 1:** Establish strong connections with industry stakeholders to provide students with real-world experiences through internships, site visits, and guest lectures.

- **Objective 2:** Collaborate with industry partners to co-create relevant projects and lab works and ensure that the program meets industry needs and standards

3. Students' Success, Alumni, Industry, and Community Engagement:

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- **Objective 1:** Implement mentorship programs connecting current students with successful alumni, construction industry, and community.
 - **Objective 2:** Offer career development services, including resume workshops, job fairs, and networking events to enhance job placement and career growth for graduates.

4. Diversity, Equity, and Inclusion:

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- **Objective 1:** Foster a diverse and inclusive environment that values and respects the unique perspectives and backgrounds of all students and faculty.
 - **Objective 2:** Implement initiatives to attract and support underrepresented student groups within the Construction Management program.

5. Community Engagement and Outreach:

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- **Objective 1:** Establish partnerships with local communities to engage students in projects that contribute to development and address community needs.
 - **Objective 2:** Promote community awareness of the program's activities and opportunities for collaboration.

6. Technology Integration

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- **Objective 1:** Incorporate emerging technologies into the curriculum and lab works to enhance student skills and knowledge.
 - **Objective 2:** Collaborate with industry partners to provide access to the latest software and technologies used in the construction sector.
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IMPLEMENTATION AND TIMELINE:

Year 1 and 2 (FY 2024/25 to 2026/27)

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- Conduct a comprehensive curriculum review with industry inputs while focusing on current trends and emerging technologies in construction areas; determine what should be added or replaced.
 - Initiate the faculty mentorship programs and encourage involvement in the College of Engineering faculty development program.
 - Expand industry seminar on the expertise of civil and construction industries.
 - Create an annual department newsletter to disseminate the accomplishments of the CEEC department and establish a fundraising initiative.

Year 3 and Year 4 (FY 2026/27 to 2028/29)

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- Implement curriculum updates and assessment to incorporate current and emerging technologies used in Construction Management areas.
 - Expand industry partnerships to include small, minority-, and women-owned businesses to enhance hands-on experiences for students.
 - Launch on-line mentorship programs in collaboration with ASCE Young Member Forum as well as Associated General Contractors to match undergraduate potential industry mentors.
 - Expand alumni and industry activities by leveraging digital footprint and in-person campus contacts.

Year 5 (2028/2029)

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- Evaluate the program's success in achieving stated objectives and make necessary adjustments.
 - Continue to foster relationships with industry, alumni, and the community to strengthen program sustainability and growth.

KEY PERFORMANCE INDICATORS (KPI):

Related to Goal 1

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- Revised curriculum based on industry inputs. Increased recruitment, retention, and graduation.
 - Course performance assessment data target. Job placement rates for graduates. Student and employer satisfaction surveys.
 - Research publication and grant acquisition metrics.

Related to Goal 2

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- Student internship experience/opportunities within relevant professions.
 - The number of students exposed to Construction Engineering practices.
 - The number of senior design projects in collaboration with industry partners.

Related to Goal 3

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- The numbers of mentors and student pairing.
 - Participation in career development services, including resume workshops, job fairs, and networking events.

Related to Goal 4

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- Participation in training/workshops relevant to diversity and inclusion.
 - The numbers of interactions and scholarships with underrepresented students.
 - Diversity and inclusion statistics within the program.

Related to Goal 5

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- The number of community-based projects involving faculty and student groups/organizations.
 - The number of faculty interactions with local professional organization chapters.

Related to Goal 6

- The number of opportunities (e.g., courses and workshops) where emerging technologies such as Building Information Modeling (BIM), virtual/real/mixed reality, and other relevant tools are introduced/implemented in collaboration within the construction industry.

RESOURCE ALLOCATION:

- Allocate departmental funds for recruitment, assessment, faculty training, and industry interactions.
- Allocate funds for curriculum development and education/research initiatives.
- Initiate faculty strategy to secure large grants and partnerships for special projects and education/research activities.
- Allocate staff resources for program administration, student support services, and community engagement efforts.

BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT

The goal of the Bachelor of Science (BS) in the Construction Management program is to prepare graduates for professional practice as a construction manager. Graduates will be provided with a well-rounded educational background in business, construction management and science, liberal arts, management, mathematics, and college physics. It is expected that some years after graduation, graduates can become certified construction managers or project managers. This degree is accredited by the American Council for Construction Education (ACCE). The department also offers a Bachelor's in Science in Civil Engineering, a Master's in Civil Engineering, a Master's in Construction and Infrastructure Management, and a PhD in Civil Engineering.

BSCM CIP CODE

14.0801

BSCM PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

The educational objectives of the Bachelor of Science in Construction Management undergraduate degree program are:

- The graduates will meet the expectations of employers of construction managers in key areas of construction practice.
- The graduates will possess the skills for progression within the construction profession.
- The graduates will be well-equipped to pursue advanced studies.

STUDENT LEARNING OUTCOMES (SLOS)

Upon graduation from the UNLV's Bachelor of Science in Construction Management Degree Program, all graduates 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 methods, materials, and equipment used to construct projects.
- 8) Apply electronic-based technology to manage the construction process.
- 9) Apply basic surveying techniques for construction layout and control.

- 10) Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- 11) Understand construction accounting and cost control.
- 12) Understand construction quality assurance and control.
- 13) Understand construction project control processes.
- 14) Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- 15) Understand the basic principles of sustainable construction.
- 16) Understand the basic principles of structural behavior.
- 17) Understand the basic principles of HVAC, electrical, and plumbing systems.

CAREER POSSIBILITIES

A Bachelor of Science in Construction Management is intended to provide graduates with analytical, management, and communications skills that enable them to plan, schedule, organize, and estimate costs for construction projects. Construction managers also communicate and coordinate with diverse teams of professionals such as architects, engineers, inspectors, and skilled trades in offices and at construction sites.

PROGRAM POLICIES

- All required and elective courses in Engineering, Construction Management, Mathematics, Science, Business, Information Science, and English must be completed with a grade of C or better. Prerequisite courses must be completed with a grade of C or better before taking the next course.
- Students must complete all pre-major courses before promotion to Advanced Standing. Promotion to Advanced Standing requires a minimum GPA of 2.0 and a grade of C or better in all courses specified in first bullet above.
- All Construction Management majors must take the American Institute of Constructor's Constructor Qualification Examination (CQE) Level I Construction Fundamentals within one year prior to anticipated date of graduation. A good-faith effort on the exam is required.

ADDITIONAL INFORMATION

Civil & Environmental Engineering and Construction Department, University of Nevada, Las Vegas

<https://www.unlv.edu/ceec>