



CONSTRUCTION MANAGEMENT

PROGRAM MISSION, GOAL AND OBJECTIVES

Construction Management Program Strategic Plan

Mission

The mission of the Bachelor of Science in Construction Management program is to cultivate future leaders in the ever-growing construction industry by fostering an innovative and comprehensive learning environment that promotes technical excellence, ethical integrity, leadership skills, and a lifelong learning commitment in our graduates.

Program Goal

Goal:

The goal of the Construction Management program is to provide students with a comprehensive education that prepares them for successful careers as construction professionals capable of managing complex construction projects effectively, ethically, and sustainably.

Strategy:

The program emphasizes hands-on learning, industry-relevant coursework, and practical experience to develop students' technical proficiency, leadership skills, and commitment to excellence in construction management.

Equip and prepare graduates of the program to meet the evolving needs and adapt to the dynamic nature of the construction industry, contribute positively to their communities, and pursue lifelong learning and professional development opportunities in construction management and related fields.

Program Objectives

| <p><i>Mission</i></p> | <p><i>The mission of the Bachelor of Science in Construction Management program is to cultivate future leaders in the ever-growing construction industry by fostering an innovative and comprehensive learning environment that promotes technical excellence, ethical integrity, leadership skills, and a lifelong learning commitment in our graduates.</i></p> | | |
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| <p>GOAL</p> | <p>OBJECTIVE</p> | <p>STRATEGY</p> | <p>METRICS</p> |
| <p><i>The goal of the Construction Management program is to provide students with a comprehensive education that prepares them for successful careers as construction professionals capable of managing complex construction projects effectively, ethically, and sustainably.</i></p> | <p>Objective # 1: <i>Graduates of the program will demonstrate the capacity to manage complex construction projects including the bidding, contracting, and implementation phases as members of a management team in the construction industry.</i></p> | <ul style="list-style-type: none"> ▪ Provide real world application problem scenarios. ▪ Encourage to become a member of professional organization. ▪ Develop project proposal to simulate actual construction project processes. ▪ Develop partnership with construction companies for internships and employment. | <ul style="list-style-type: none"> ▪ Feedback from job supervisors and/or Employer Survey Target: 70% of the respondents will rate graduate satisfactory or above by the employer/supervisor – rated as greater than 3 on 1 to 5 in the Likert Scale. ▪ Project submission from senior project – CNET0 4795 Target: 70% of graduating students will receive a rating of 80/100 or above in their senior project report/packet. |
| | <p>Objective 2: <i>Graduates will demonstrate technical competence in the tools and processes required in the construction field to perform field operations and management.</i></p> | <ul style="list-style-type: none"> ▪ Partnership with industry for internship recruitments ▪ Participation in volunteer activities through Habitat for Humanity etc. ▪ Provide tutorials or peer mentoring for students. ▪ Maintain reasonable class size. ▪ Employment of graduates | <ul style="list-style-type: none"> ▪ Feedback from job supervisors and/or Employer Survey Target: 70% of the respondents will rate graduate satisfactory or above by the employer/supervisor – rated as greater than 3 on 1 to 5 in the Likert Scale. |

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| | <p>Objective 3: <i>Graduates will demonstrate an ability to communicate effectively both orally and written in a professional environment.</i></p> | <ul style="list-style-type: none"> ▪ Integrate communication skills into courses to enhance skills. ▪ Develop mockup interviews. ▪ Develop team working exercises and group projects. ▪ Encourage students for internship to improve interpersonal skills. | <ul style="list-style-type: none"> ▪ Project presentation and report from senior design course – CNET 4795 Capstone project Target: 70% of graduating students will receive a rating of 80/100 or above in their capstone project report/presentation. |
| | <p>Objective 4: <i>Graduates and faculty members will demonstrate continued growth in professional knowledge, lifelong learning and service to profession, industry, and community.</i></p> | <ul style="list-style-type: none"> ▪ Provide opportunity for faculty members to attend professional developments through seminars, symposium, conference, and trainings. ▪ Encourage students to become active members of student organizations and affiliated professional associations and organizations to create camaraderie and networking among students and professionals in the field. ▪ Provide seminar series/ panel discussion for students in the program to keep abreast of latest trends in construction industry. ▪ Provide opportunity for students to participate in various student competition regionally and nationally. ▪ Participate as volunteer in community service or service learning of students and faculty. | <ul style="list-style-type: none"> ▪ Professional organization of graduate involvement Target: 60% of graduates in the program are members of professional organizations or pursuing education advancement. ▪ Faculty or Professional Development Target: 70% of Faculty Members have at least 3 Faculty or Professional Development per year related to field of expertise. ▪ Professional Committee Members Target: 60% of Faculty Members are involved as committee or advisory member of Professional Organization. |
| | <p>Objective 5: <i>Graduates will achieve recognition and/or compensation consistent with their educational achievements.</i></p> | <ul style="list-style-type: none"> ▪ Partners with industry to create internship and employment opportunities for students and graduates. ▪ Promotes industry benefits of program completion versus course completion. | <ul style="list-style-type: none"> ▪ Employment Target: 70% of graduates receive an offer before or 3 months after graduation. |

1. Student Learning Outcome

Student Learning Outcomes are based on ACCE criteria as defined in ACCE Document 103B. The 17 student learning outcomes demonstrate students' ability to apply fundamental knowledge in construction science and construction management areas as described in ACCE Document 103B, which lists required curricular content.

Faculty in the Construction Management program at the University of North Texas operationally defined each of the 17 ACCE learning outcomes. The operational definition of each student learning outcome provides a broad categorization of the knowledge and skills graduates with a Bachelor of Science in Construction Management from the University of North Texas will possess each student learning outcome. Students graduating with a B.S. in Construction Management will achieve the following objectives:

SLO #1: Create written communications appropriate to the construction discipline.

- Develop reports and/or projects and summarize information into appropriate and concise format.
- Submit reports in a professional manner free from grammatical errors and use language and content appropriate to the construction industry.

Assessment: CNET 4795 – Senior Project, CNET 4170 – Assignment #2

SLO #2: Create oral presentations appropriate to the construction discipline.

- Demonstrate verbal and non-verbal communication skills through presentation of project.
- Deliver presentation with language and message appropriate to the construction industry.

Assessment: CNET 4795 – Senior Project

SLO #3: Create a construction project safety plan.

- Develop a clear and concise safety plan.
- Develop procedures on accident prevention and control.
- Develop Jobsite Safety Analysis (JSA) Report

Assessment: CNET 3410 - Term project on Construction Job Site Safety Plan

SLO #4: Create construction project cost estimates.

- Perform quantity take off (QTO) through a set of construction documents – Drawings and Specifications.
- Perform labor productivity estimates.
- Perform material, labor and equipment pricing.
- Develop a detailed estimate of a construction project.

Assessment: CNET 3160 – Term Project

SLO #5: Create construction project schedules.

- Develop, update, revise, and edit schedule of a project.
- Understand cost and time variances and their impacts on the project schedule.

Assessment: CNET 4170 – Assignment #9

SLO #6: Analyze professional decisions based on ethical principles.

- Identify ethical facts and issues using applicable elements of a code of ethics and/or a company code of ethics.
- Identify the parties involved, relationships, impacts and responsibilities of each party.

Assessment: CNET 3410 – Major Exam 1/ Assignment #4

SLO #7: Analyze methods, material, and equipment used to construct projects.

- Understand common materials, methods, and equipment in construction.
- Select appropriate means and methods for a construction project.

Assessment: CNET 2180 – Midterm Exam

SLO #8: Apply electronic-based technology to manage the construction process.

- Demonstrate appropriate use of technologies to complete construction operations and management tasks.

Assessment: CNET 3190 – Lab Assignment/ Term Project

SLO 9: Apply basic surveying techniques for construction layout and control.

- Understand distance, grade, and angular measurement.
- Demonstrate use of surveying equipment for construction layout and control
- Use three-dimensional measurement, modeling, and positioning systems.

Assessment: CNET 2200 – Field Exercises/ Final Exam

SLO #10: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.

- Understand the aspects of, and risks associated with, different project delivery methods.
- Compare different project delivery methods and select the most effective method.

Assessment: CNET 3150 – Major Exam 1, CNET 4170 – Major Exam 1

SLO #11: Understand construction accounting and cost control.

- Understand the relationship between time and resources on project costs.
- Understand labor and operations cost reports.

Assessment: CNET 3150 – Major Exam #2, CNET 4170 – Class Exercise

SLO #12: Understand construction quality assurance and control.

- Understand the submittal process for construction materials and deliverables.
- Understand specifications as they apply to project QA/QC
- Understand the role of construction material testing standards.

Assessment: CNET 4190 – Midterm Exam

SLO #13: Understand construction project control processes.

- Understand project control procedures and inputs.
- Understand basic project control systems and their effects on tracking project costs and budgets.

Assessment: CNET 4170 – Assignment 11/ Assignment 12

SLO #14: Understand the legal implications of contract, common, and regulatory law to manage a construction project.

- Identify the essential components and critical clauses in a construction contract.
- Understand appropriate vocabulary in legal communication.
- Understand the remedies available to parties impacted by breaches of legal duties!
- Understand alternative dispute resolution methods.

Assessment: CNET 3150 – Major Exam 1/ Major Exam 3

SLO #15: Understand the basic principles of sustainable construction.

- Understand the definition and application of sustainability.
- Understand the characteristics of sustainable materials and methods.

Assessment: CNET 4630 – Quiz #4

SLO #16: Understand the basic principles of structural behavior.

- Understand basic structural systems.
- Understand the fundamental properties of soils.
- Understand the basic forces that act upon buildings.

Assessment: CNET 3485 – Final Exam

SLO #17: Understand the basic principles of mechanical, electrical, and piping systems.

- Understand the contractor’s role in the delivery of MEP systems.
- Understand the operation and installation of MEP systems.

Assessment: CNET 4630 – Major Exam 2, Major Exam 3