

Instructor:

Phone:

E-mail:

**TEXTBOOK AND SUPPLIES:**

- NCCER Concrete Construction Level 1, 2nd Edition, ISBN-13: 9780136868286

**PREREQUISITE:** TECN 1100 Concrete Masonry 1B with a C grade or higher or instructor approval

**OTHER REGISTRATION RESTRICTION(S):** It is highly recommended that students be registered with DOL by their Sponsor (employer).

**COURSE DESCRIPTION:** In this course, apprentices are introduced to foundations and vertical formwork, site concrete, finishing concrete, and curing and protecting concrete. The course is designed to help the apprentice develop their craft skills and be contributing members of a concrete crew.

**Upon completing this course, students should be able to:**

1. Erect, plumb, and brace a wall, column, or stair form
2. Describe the procedures and techniques used in constructing common site-built structures and constructing curbs, gutters, site-built concrete steps, walks, drives, and patios
3. Perform calculations for tread and riser dimensions
4. Build wood formwork for a set of steps on grade with a top landing, and place and finish concrete for a curb, gutter, and set of steps
5. Hand float, edge, groove, and trowel a small concrete slab
6. Apply a broom finish to a slab and a sack or stone-rubbed finish to a surface
7. Mark and saw control joints
8. Apply a curing compound to a slab using a systematic pattern, cover a slab with curing coverings, sealed and wrinkle-free

**COURSEWORK:**

- **Weekly Homework:** You are expected to come to class prepared with your weekly readings and assignments.
- **Pre-Post Assessments, Weekly Quizzes:** Take and submit online in Canvas.
  - A pre- and post-assessment will be taken on the first and last day of class to measure progress
  - Weekly quizzes will be taken online in Canvas. You are allowed two attempts with the higher score recorded.
- **Attendance/Participation:** Attendance is expected and crucial to understanding the material and participating in classroom activities. Attendance and participation will be recorded daily and

included in your coursework grade. 95% attendance is required, so you are allowed three excused absences.

- **Final Exam:** The final exam will be a comprehensive examination.
- **Lab Projects:** Completion of related lab projects will be required. Missed projects must be coordinated with the instructor and made up.

**GRADES:** Final grades will be calculated using the following scale and weights.

A	93% and above	C	73% – 78.9%
A-	90% – 92.9%	C-	70% – 72.9%
B+	87% – 89.9%	D+	67% – 69.9%
B	83% – 86.9%	D	63% – 66.9%
B-	80% – 82.9%	D-	60% – 62.9%
C+	77% – 79.9%	E	below 60%

Homework	20%
Pre-Post Assessments, Quizzes	20%
Final Exam	25%
Weekly Projects	25%
Attendance/participation/in-class work	10%

**Schedule** (Subject to change)

WEEK	DAY 1	DAY 2	ASSIGNMENTS
1	1. Vertical Formwork a. Concrete Walls and Forms	1. Vertical Formwork a. Patented Wall-Form Systems b. Assembling and Setting Forms	TBD
2	1. Vertical Formwork a. Column Forms b. Vertical Slipforming	1. Vertical Formwork a. Stair Forms b. Vertical Architectural and Specialty Forms	TBD
3	1. Vertical Formwork (Cont'd)	1. Vertical Formwork (Cont'd)	TBD
4	1. Vertical Formwork (Cont'd)	1. Vertical Formwork (Cont'd)	TBD
5	1. Vertical Formwork (Cont'd)	1. Vertical Formwork (Cont'd)	TBD
6	1. Vertical Formwork (Cont'd)	1. Vertical Formwork (Cont'd)	TBD
7	1. Site Concrete a. Construction Curbs and Gutters	1. Site Concrete a. Construction Curbs and Gutters	TBD
8	1. Site Concrete a. Concrete Steps	1. Site Concrete a. Pan Stairs	TBD
9	1. Site Concrete a. Sidewalks, Driveways, and Patios	1. Site Concrete a. Sidewalks, Driveways, and Patios	TBD
10	1. Site Concrete a. Placing, Finishing, and Curing	1. Site Concrete	TBD

WEEK	DAY 1	DAY 2	ASSIGNMENTS
11	1. Finishing Concrete a. Concrete Safety Reminder	1. Finishing Concrete a. Basic Finishing Processes	TBD
12	1. Finishing Concrete a. Edging Concrete	1. Finishing Concrete a. Jointing Concrete	TBD
13	1. Finishing Concrete a. Floating and Troweling Techniques	1. Finishing Concrete a. Surface Finishes	TBD
14	1. Finishing Concrete (Cont'd)	1. Finishing Concrete (Cont'd)	TBD
15	1. Curing & Protecting Concrete a. Curing Process	1. Curing & Protecting Concrete a. Curing Methods	TBD
16	1. Curing & Protecting Concrete a. Protection During the Curing Process	1. Wrap up 2. Final	TBD

**WITHDRAWAL POLICY:** The College's withdrawal schedule is followed. No withdrawals will be approved beyond the drop date.

**COMMUNICATION and FEEDBACK EXPECTATIONS:** Email is the best way to communicate with your instructor through the Canvas Inbox. You can expect to receive responses to emails within 24 business hours. Projects and exams will be graded and recorded within one week of when the assignment was submitted. Keep the line of communication open to avoid any misunderstandings.

**ELECTRONIC DEVICES IN THE CLASSROOM:** No video or audio recording in the classroom is allowed without written authorization from the instructor. Cell phones and other electronic devices should be silent and off the desk during class except to take notes if it is not distracting to classmates. In an emergency, exit the classroom to use your cell phones. Disruptive behavior will cause you to be excused from class and lose participation points. Please inform your instructor of any special circumstances at the start of the semester.