

# APR 216C : CARPENTER VIII

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## Transcript title

Carpenter VIII

## Credits

3

## Grading mode

Standard letter grades

## Total contact hours

55

## Lecture hours

22

## Lab hours

33

## Prerequisites

APR 215C.

## Course Description

Describes the properties, characteristics, and uses of cement, aggregates, and concrete for vertical foundations and slabs-on-grades. Covers job-site layout to establish formwork locations, elevations, and curbs. Distinguishes best practices and covers safety precautions for concrete moving, handling, finishing, and curing into forms.

## Course learning outcomes

1. Identify concrete properties, mixing procedures, testing and curing methods.
2. Use concrete tools, equipment, and procedures to safely handle, place, and finish concrete.
3. Identify concrete structure joints and joint sealants.
4. Construct deep and shallow foundations.
5. Demonstrate safe tool usage and methods for slabs-on-grade, concrete curbing, and paving.
6. Create concrete volume estimates.

## Content outline

1. Properties of concrete, aggregates, cement
2. Estimating concrete volume, testing, mixing and curing concrete
3. Handling, placing, and finishing concrete, tools, equipment, procedures
4. Concrete joints
5. Foundations and slabs-on-grade, site layout safety, formation, tools

## Required materials

Textbook is required.