# **APR 216C: CARPENTER VIII**

## **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.