

## Master Syllabus

### CAT 1701 - Construction Craft Skills/Concrete

**Division:** Science, Mathematics and Engineering

**Department:** Civil Engineering Technology

**Credit Hour Total:** 6.0

**Lecture Hrs:** 2.0 **Lab Hrs:** 8.0

**Date Revised:** October 2012

---

#### Course Description:

An orientation to construction trades and working with concrete with strong emphasis on hands-on learning exercises. Includes Occupational Safety & Health Administration (OSHA) 10-hour construction safety. Two classroom, eight lab hours per week.

#### General Education Outcomes:

- Critical Thinking/Problem Solving

#### Course Outcomes:

##### Building system installation

Demonstrate proper techniques for building system installation.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or higher correct responses

##### Safety

Demonstrate understanding of construction safety requirements.

**Assessment Method:** Behavioral observations

**Performance Criteria:** Receive at least 70% of available points on hands-on assessment.

**Assessment Method:** Standardized national examinations

**Performance Criteria:** 70% or higher correct

##### Portland Cement Concrete

Identify the properties and ingredients of Portland Cement Concrete.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or higher correct responses.

##### Placement and finishing techniques

Demonstrate proper Portland Cement Concrete placement and finishing techniques.

**Assessment Method:** Behavioral observations

**Performance Criteria:** Receive at least 70% of available points on hands-on assessment.

#### Outline:

Safety  
Portland cement properties  
Portland cement cost-volume calculations  
Concrete preparation, forming, placing, finishing, curing and protecting  
Masonry  
Wood  
Framing  
Plumbing  
Electrical  
HVAC