

## Syllabus and Registration



**Instructor: TBD**

**Office hours/availability: (between 1PM and 5PM)**

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### **Course Description:**

**Overview of duties and responsibilities of the public works department. Includes American roads and highways, concrete and asphalt, soils and surface drainage, beautification, street striping, weed control, sewer maintenance and storm drains, staff supervision and management responsibilities.**

Course Objectives This course is a very brief thumb nail sketch of the many aspects to Public Works. **This course is a prerequisite** to Public Works Specialist Certification program.

### Course Outline:

- I. American Roads and Highways
  - A. History of the highway system in the United States
  - B. Review of terms
  - C. Street classification systems
  - D. Materials for road construction and maintenance
  - E. General review of road construction
- II.. Beautification
  - A. Concepts and problems
  - B. Original costs
  - C. Maintenance costs
  - D. Street Trees
  - E. Campus Library as a resource
- III. Soils and Surface Drainage
  - A. Basic review, terminology, types
  - B. Behavior of various types in roadway
  - C. Methods of testing and classifying
  - D. Construction methods

- IV. Staff Supervision
  - A. Definitions
  - B. The supervisor
  - C. Communications
  - D. Motivation
  - E. Training
- V. Management Responsibilities
  - A. Maintaining a culture of safety
  - A. Contracts and Specifications
  - B. Public Relations
  - C. Inspection Duties and Records
  - D. Planning for prevention of potential tort claims
- VI. Street Sweeping and Refuse Disposal
  - A. Review of equipment
  - B. Concepts and problems
  - C. Schedules and public relations
- VII. Concrete and Asphalt
  - A. Basic review, terminology, costs
  - B. Concrete techniques - finishing, curing, mixing
  - C. Concrete curb, gutter and sidewalks
  - D. Construction and maintenance of concrete pavement
  - E. Asphalt plants - operation and limitations
  - F. Asphalt mixes design and uses
  - G. Asphalt pavements - construction and maintenance
  - H. Arithmetic calculations
- VIII. Traffic Control and Street Striping
  - A. Legal requirements
  - B. Types
  - C. Equipment
  - D. Costs
  - E. Reflectivity
- IX.. Weed Control
  - A. Review of types of weeds
  - B. Reasons for control
  - C. Types of control
  - D. Costs
- X. Sewer Maintenance and Storm Drains
  - A. Materials and equipment
  - B. Maintenance programs
  - C. Objectives