

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** FST 217

**Credits:** 3

**Course Title:** Automatic Sprinkler System Design II

**Course Description:** Continues the study of sprinkler system design, implementation, and installation. Includes the use of appropriate computer applications in the design of various types of sprinkler systems. (Usually offered in spring semester.) Prerequisite: FST 216 or program permission. Lecture 3 hours per week.

**General Course Purpose:**

- a. Introduce fire sprinkler system hydraulic calculations
- b. Introduce seismic bracing
- c. Obstructions, spacing, and location of sprinklers
- d. Storage occupancies and other specialized systems
- e. Construction documents, procedures, and scheduling

**Course Prerequisites and Co-requisites:**

Prerequisite: FST 216 or program permission

**Student Learning Outcomes:**

Upon completing the course, the student will be able to

- a. Perform basic hydraulic calculations;
- b. Identify appropriate seismic bracing configurations and required installations;
- c. Identify and address obstructions to sprinklers;
- d. Identify storage arrangements, commodity classification, and appropriate design criteria; and
- e. Read and understand construction plans, specifications, and schedules (project management).

**Major Topics to Be Included:**

- a. Hydraulic calculations for sprinkler and other water-based systems
- b. Seismic bracing design, configuration, and installation requirements
- c. Sprinkler system obstructions
- d. Storage occupancies and commodity classifications
- e. Sprinkler system requirements for storage occupancies and commodities
- f. Construction plans, specifications, and schedules
- g. Project management

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