

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

Course Prefix and Number: FST 205

Credits: 3

Course Title: Fire Protection Hydraulics and Water Supply

Course Description: Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and solve water supply problems. (Usually offered in the spring semester.) Lecture 3 hours per week.

General Course Purpose:

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Apply the application of mathematics and physics to the movement of water in fire suppression activities;
- b. Comprehend the design principles of fire service pumping apparatus;
- c. Analyze community fire flow demand criteria; and
- d. Demonstrate, through problem solving, a thorough understanding of the principles of forces that affect water at rest and in motion.

Major Topics to Be Included:

- a. Application of mathematics and physics to the movement of water in fire suppression activities
- b. Design principles of fire service pumping apparatus
- c. Community fire flow demand criteria
- d. Principles of forces that affect water at rest and in motion

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