

Lecture	Skill	Fractional Credit
10	2	0.8

Course Description

This course includes information pertaining to water supply including water distribution systems, hydrant operation and apparatus, equipment and appliances required to provide water for fire extinguishment.

Prerequisites: FRS 1041 or Consent

Corequisite: None

Task List

1.	Identify the water distribution system and other water sources in the local community.
2.	Identify the following parts of a water distribution system: a. Distributors; b. Primary feeders; and c. Secondary feeders.
3.	Explain the operation of a: a. Dry-barrel hydrant; and b. Wet-barrel hydrant.
4.	Define the following terms as they relate to water supply: a. Static pressure; b. Normal operating pressure; c. Residual pressure; and d. Flow pressure.
5.	Identify the following types of water main valves: a. Indicating, and b. Nonindicating.
6.	Describe how the following conditions reduce hydrant effectiveness: a. Hydrant obstructions; b. Direction of hydrant outlets to suitability of use; c. Mechanical damage; d. Rust and corrosion; e. Failure to open the hydrant fully; and f. Susceptibility to freezing.
7.	Identify the apparatus, equipment, and appliances required to provide water at rural locations by relay pumping or a mobile water supply apparatus shuttle.
8.	Identify and explain the 4 fundamental components of a modern water system.
9.	Given a pitot tube and gauge, read and record flow pressures from three different-sized orifices.
10.	Identify the pipe sizes used in water distribution systems for residential, business, and industrial districts.
11.	Identify 2 causes of increased resistance or friction loss in water mains.

Instructor Equipment List

Pitot tube and gauge
Hydrant wrench
Static water gauge
Assorted fittings and adapters as required
Nozzles and nozzle tips

Student Equipment List

Personal protective equipment

Old FRT number: 390 / FRT 140