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## COURSE SYLLABUS

**DIVISION:** Workforce Services

Revised: January, 2015

**CURRICULA IN WHICH COURSE IS TAUGHT:** Non-Curricula

**COURSE NUMBER AND TITLE:** BLD 195 TOPICS IN BACKFLOW PREVENTION (1 Crs)

**CREDITS:** 1

**HOURS/WEEK LECTURE:** 1

**HOURS/WEEK LAB:** 0

**LECTURE/LAB COMBINATION:** 1 (1)

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- I. CATALOG DESCRIPTION:** This course will provide information focusing on backflow prevention and cross-connection control. Students will learn about the need for water supply protection, the risks involved, and the protection methods available. State and local agency rules and regulations for safety, equipment use, and design for cross-connection control and backflow prevention will also be discussed.
- II. RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES IN WHICH IT IS TAUGHT:** Non-Curricula Course
- III. REQUIRED BACKGROUND:** None
- IV. COURSE CONTENT:**
1. **Definitions**
    - Backflow Prevention and Cross Connection Control Terminology
  2. **Cross-Connection Control Program Elements**
    - Legal Authority
    - List of Approved Backflow Prevention Assemblies
    - Testing and Repair Program
    - Trained Personnel
    - Conducting Survey
    - Record Keeping
    - Public Information
  3. **Regulations**
    - Federal
    - State
    - Local
  4. **Hydraulics**
    - Pressure
    - Flow Rate
    - Temperature
  5. **Survey**
    - Prioritize Customer List
    - Review of Drawings and Plans
    - Contact the Water User
    - Evaluate Water Usage

- Assign Protection
- Assure Compliance

**6. Water Service Types**

- Critical Services
- Combined Services
- Multiple Services
- Fire Sprinkler Services
- Irrigation Services
- Restricted or Classified Services
- Single and Multiple Family Dwelling
- Industrial/Commercial Services
- Temporary Services

**7. Methods and Assemblies**

- Reduced Pressure Principle Backflow Prevention Assembly
- Pressure Vacuum Breaker Backflow Prevention Assembly
- Spill-resistant Vacuum Breaker Backflow Prevention Assembly
- Double Check Valve Backflow Prevention Assembly
- Atmospheric Vacuum Breaker
- Air gap

**8. Drawings and Plans**

- As-Builts
- Plan Reading
- Isometrics and Symbols

**9. Record Keeping**

- Tester / Repair Program
- Survey Documents

**10. Public Relations**

**V. LEARNER OUTCOMES:**

**VI. EVALUATION:**

<p>Upon completion of the course, students should have</p> <ol style="list-style-type: none"> <li>1. Understanding of the need for water supply protection, the risks involved, and the protection methods available.</li> <li>2. Understand the State and local agency rules and regulations for safety, equipment use, and design for cross-connection control</li> </ol>	<p>Combination of attendance, lab exercises, in-class participation, homework, and test.</p>
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**The course supports the following education goals and objectives:**

DCC Educational Objectives

1. Communication
2. Critical Thinking
3. Interpersonal Skills and Human Relations
4. Computational and Computer Skills
5. Understanding Culture and Society