



## Industrial Technology/Construction Trades

# Backflow Prevention Certification CITR-1140

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This 40-hour, classroom-based course will teach the installation and maintenance of approved backflow prevention assemblies at water service connection points. Students will learn important backflow terminology, utilize testing equipment, and understand protocol set by the state of Iowa and University of Southern California (USC) guidelines in order to recognize and prevent potential hazards caused by abnormal hydraulic conditions. This class is held at a training site that is authorized by the state of Iowa and is taught by a backflow tester trained at USC. Satisfactory completion of this class will allow the student to apply to become a licensed backflow prevention tester in the state of Iowa.

Ready to learn more? Complete our information form at [www.kirkwood.edu/ce\\_certificatesform](http://www.kirkwood.edu/ce_certificatesform) or contact a student advisor today at [ceadvising@kirkwood.edu](mailto:ceadvising@kirkwood.edu) or 319-398-5529.

**Course List:**

NA

**Delivery Method:**

Classroom

**Length of Program and CEU Credits:**

40 hours, 4.8 CEUs

**Entrance Requirements/Prerequisites:**

None

**Other Items to Know About this Course:**

Students will need to purchase the following textbooks: "Manual of Cross Connection Control" (10th Edition) and "Abbreviated Field Tar Procedures."

**Program Completion Requirements:**

Students must pass a 100-question examination that is given during the program. To meet the state of Iowa requirements, the student must receive a grade of at least 70 percent on the written examination. Additionally, the student must successfully complete USC testing and troubleshooting procedures with no assistance. This section of the course will be graded as a pass/fail requirement. Both of these criteria must be met in order to complete the program.

**Industry Credentials Earned:**

Completion of the program will allow students to apply for licensure from the state of Iowa for backflow prevention device testing.

**Pathway to Credit Program:**

None

**Tuition Assistance:**

No

### Course Objectives:

- Define common backflow and cross-connection terms.
- Understand and give examples for causes of backflow conditions.
- Identify principles of operation, limitations, and installation requirements of each of the common backflow prevention devices: the spill resistant vacuum breaker, the pressure vacuum breaker, the double check valve assembly, and the reduced pressure assembly.
- Identify and describe the component parts of testable backflow prevention devices.
- Utilize various types of testing equipment, including test gauges, jumper tubes, and bleed-off valves.
- Identify and describe the State Plumbing Code backflow device testing requirements and the responsibilities of registered testers and regulatory agencies.
- Perform testing and troubleshooting procedures that follow the guidelines of the University of Southern California.
- Disassemble, clean, reassemble, and test a variety of spill resistant vacuum breakers, pressure vacuum breakers, double check valve assemblies, and reduced pressure assemblies.
- Identify and describe the required record-keeping activities when testing backflow prevention devices, and accurately complete test forms.

### Learning Outcomes:

Completion of this program allows participants to apply to the state of Iowa to become a licensed backflow prevention device tester. This license allows testers to test backflow in any county of Iowa.

### Careers:

Source: *Career Coach 2018, Kirkwood Community College region.*

#### Plumbers, Pipefitters, and Steamfitters

Average hourly earnings: \$26.39

Starting hourly earnings: \$14.91

Projected job openings (2018 – 2023): 711

### Related Information:

NA

### LEARN MORE

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**Continuing Education**  
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