

CRITICAL KNOWLEDGE FROM HYDROCORP™ – THE SAFE WATER AUTHORITY™

Course Submission Summary

Purpose of this document: Submitted to appropriate Agencies for formal recognition that students who complete entire course will be granted a specific amount of Continuing Education Units/Credits. Attached to this document is a **Sample Attendance Roster**, a **Sample Course Evaluation Form**, and a **Sample Course Certificate of Completion**.

Course Provider Biography

This course is presented by **SafeWater EDU**, an educational platform by HydroCorp, the Safe Water Authority. Since 1983, HydroCorp has specialized in cross-connection control program services and backflow prevention monitoring for public water systems, industrial complexes, and healthcare facilities. HydroCorp is staffed with seasoned professionals who have decades of experience in the water industry. HydroCorp has contributed to the AWWA M-14 Cross-Connection Control Manual, and has been proctoring educational classes across the United States for over twenty years.

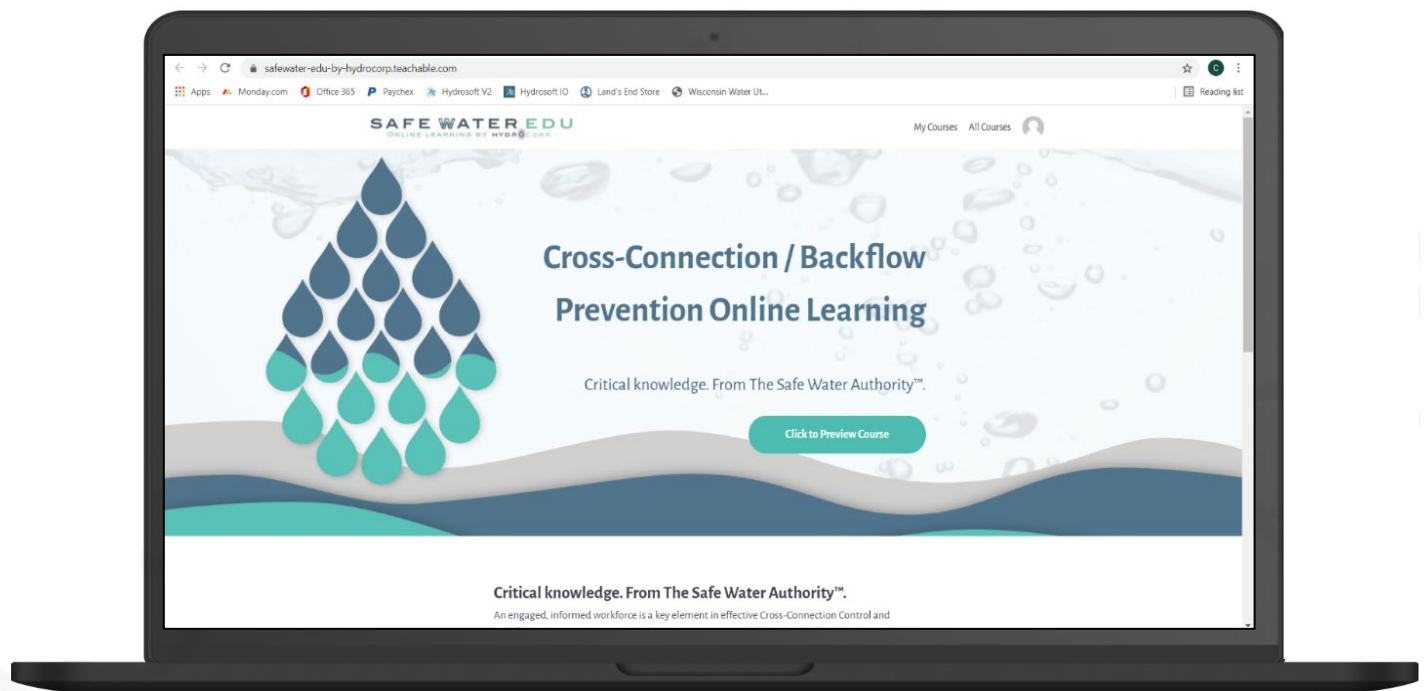
Each SafeWater EDU Course has been developed and assembled by the HydroCorp Team of [ASSE Certified industry experts](#) with extensive records of professional achievement in the world of Backflow Prevention and Cross-Connection Control. More info at:

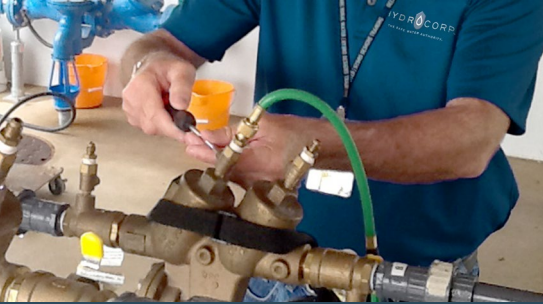
- <https://safewater-edu-by-hydrocorp.teachable.com/p/coursedevteam>
- <https://hydrocorpinc.com/leadership/>
- <https://hydrocorpinc.com/about/>

Course Provider Contact

Cooper Nicholas: (248) 930-3734; cnicholas@hydrocorpinc.com.
SafeWater EDU – HydroCorp, 5700 Crooks Rd. Suite 100, Troy, MI 48098.

This course available to students via <http://SafeWaterEDU.com/>





Course Title: Backflow Prevention Devices, Assemblies, and Methods #SWE-002

Course Instructor: Cooper Nicholas

Approximate time to complete course: 1 Contact Hour



Intended Audience: Water System Operators, Wastewater System Operators, Plumbing Professionals, Department of Public Works Employees, City Officials and Industrial/Medical Facility Maintenance Staff. Students require no topical knowledge to take this course.

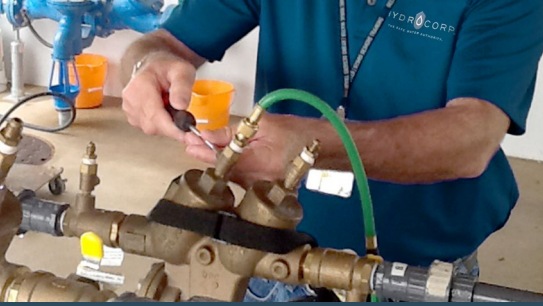
Course Description: *Backflow Prevention Devices, Assemblies, and Methods #SWE-002* is an online continuing education course accessible through <https://safewater-edu-by-hydrocorp.teachable.com/>. This course is an examination of backflow preventers that are used to keep the drinking water supply safe from pollutants and contaminants. Students are provided definitions of Backflow, Back Siphonage, and Back Pressure. They are also introduced to Plumbing Codes and the concept of Backflow Preventers. The course provides definitions of Backflow Prevention Devices, Assemblies and Methods along with the concepts of Containment and Isolation.

Students go over the three factors to be considered when selecting a backflow preventer, including the degree of hazard, if the preventer will be subjected to back siphonage or back siphonage and backpressure, and if the preventer will be subjected to continuous pressure. Students also learn about the periodic testing necessary for backflow prevention assemblies by qualified personnel, review the ASSE numbers of each of these backflow preventers, and the applications each one is approved for by the ASSE.

Course Sales Page: <https://safewater-edu-by-hydrocorp.teachable.com/p/backflow-prevention>

Course Details: This course is presented through Teachable.com, an online learning platform. The duration of the course is approximately **1 hour**. Students will proceed through the course as follows:

- **Course Syllabus (1 min):** Students will read over the course syllabus before proceeding on to anything else. The course is programmed so that each section of the class must be followed in order. Digital coding requires 100% viewing for course completion.
- **Course Workflow Video (1 min):** Students will then watch a short video to familiarize themselves with the layout of the website and with the location of different materials and pages. Digital coding requires 100% viewing for course completion.
- **Course Lesson (35 min):** This is the bulk of the course; a video which consists of a slideshow and a voiceover from our course instructor to lecture on the information on each slide. Digital coding requires 100% viewing for course completion.
 - o **Backflow Review (5 min)**
 - Common Causes
 - Types of Backflow
 - Cross-Connections

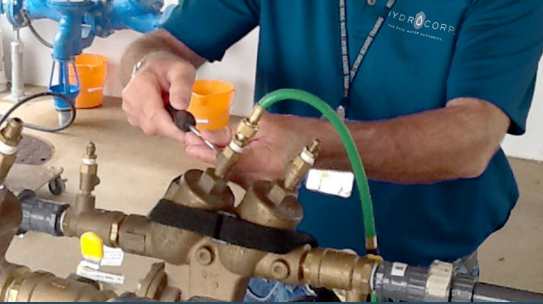


- **Backflow Prevention (10 min)**
 - Plumbing Code
 - Preventers
 - ASSE Standards
 - Applications
- **Backflow Preventers (20 min)**
 - Methods & Air Gap Devices
 - Devices
 - Assemblies
- **Course Reference Materials & Resources (1 min):** This page provides the student with supplementary materials including a Course Keynotes PDF Handout, the EPA Cross-Connection Control Manual, and other resources. Digital coding requires 100% viewing for course completion.
- **Course Photo Gallery & Assignment (5 min):** The photo gallery provides a number of visual aids for the student that include infographics, illustrations, and photos all with captions written by our course instructor to add further understanding for the student. The gallery is followed by a brief comprehension quiz related to the photos. **There is a 70% passing requirement.** Digital coding requires 100% viewing for course completion.
- **Lesson Review Video (1 min):** This final video is a brief overview of the big topics covered in the Course Lesson. Digital coding requires 100% viewing for course completion.
- **Final Quiz (20 min):** The student will then be able to take the twenty-question final quiz. They may advance back to the previous pages if they want to review or rewatch anything before taking the final quiz. **There is a 70% passing requirement.** Digital coding requires 100% viewing for course completion.
- **How to Receive Your CEC (1 min):** This page directs the students to submit their hours to the appropriate Agency and at the end of this course the student is provided with a Course Proof of Completion Certificate that will include their name, the name of the course, the number of education hours, the name of the instructor, the date the class was taken, and a unique serial number. Digital coding requires 100% viewing for course completion.

Learning Objectives

Students will be able to:

- Define Backflow, Cross-Connections, and Backflow Preventers
- Explain the differences between Devices and Assemblies
- Identify the characteristics, applications, and limitations of the Backflow Preventers covered in the Course Lesson



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Cooper Nicholas SafeWater EDU Instructor

Phone: (249) 930-3734 | Email: cnicholas@hydrocorpinc.com



Cooper Nicholas is a veteran cross-connection control surveyor, with over 3,200 hours of in field experience and over 15,000 residential and commercial cross-connection control inspections completed for HydroCorp in his time with the company. He has trained multiple employees in both residential and commercial cross-connection inspections and has continued to grow his knowledge of all things backflow and cross-connection.

HydroCorp Onsite Training Services

HydroCorp™ offers purpose-suited custom training programs to companies and associations of all sizes throughout North America, both through in-person instruction and via secure web-based remote learning sessions. We also host instructional seminars at leading industry trade shows and events, working in cooperation with organizations such as the Rural Water Association, the American Water Works Association, the American Public Works Association, and other leading industry groups.

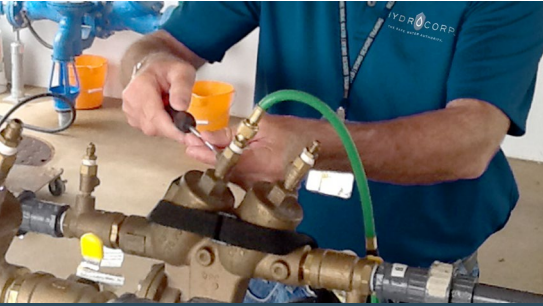
Our instructors are fully certified in all applicable subject areas and are acknowledged experts in their field. Our certifications are gained through industry recognized organizations such as American Society of Sanitary Engineers, USC Foundation for Cross-Connection Control and Hydraulic Research, UF TREEO Center, American Backflow Prevention Association and American Water Works Association.

Organizations that have taken advantage of HydroCorp™ training services include:

Alliance of Indiana Rural Water Assoc.
American Backflow Prevention Assoc.
American Public Works Assoc.
American Water Works Assoc.
DE Office of Drinking Water
DE Rural Water Assoc.
Fiat Chrysler Automobiles
FL Dept. of Environmental Protection
Florida Rural Water Assoc.
Ford Motor Co.

General Motors
Leesburg, VA Cross Connection Control School
Maintenance Shows of America, VA
Maryland Dept. of Environment
MD Center for Environmental Training
ME Rural Water Assoc.
MI Dept. of Community Health
MI Rural Water Assoc.
MI Society for Healthcare Engineers

Mid-Atlantic Cross Connection Control Conference (MAC4)
MN Dept. of Health
MN Rural Water Assoc.
OH Rural Water Association
UF TREEO Center
WI Dept. of Natural Resources
WI Rural Water Assoc.
Wisconsin Department of Natural Resources



SafeWater EDU Policies and Procedures

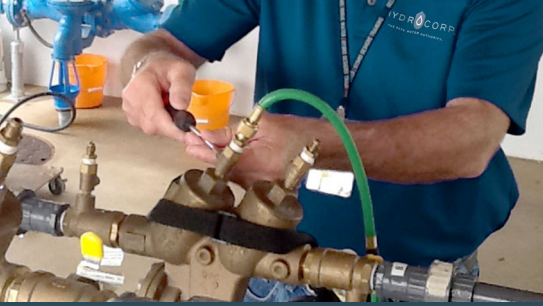
Updated 10.18.2022

Section 1: Mission Statement

- A. SafeWater EDU by HydroCorp is dedicated to bringing high-quality, one hour, anytime online courses created by a team of ASSE Certified experts focused on backflow prevention and cross-connection control to water operators and other municipal employees who want or need to learn about these topics.

Section 2: Ensuring Instructor Qualifications

- A. SafeWater EDU employs ASSE Certified and highly experienced individuals to bring these courses to the public.
- B. Each SafeWater EDU Course has been developed and assembled by the HydroCorp Team of ASSE Certified industry experts with extensive records of professional achievement in the world of Backflow Prevention and Cross-Connection Control. The current SafeWater EDU Course Development Team is comprised of
 - i. Cooper Nicholas (video/audio production, course instruction, platform management)
 - ii. Gary McLaren (course content)
 - iii. Larry LaBute (course content and final reviews)
 - iv. Paul Patterson (final reviews)
 - v. David Cardinal (final reviews)
 - vi. Glenn Adamus (final reviews)
- C. Each SafeWater EDU Course is presented via video and voiceover by Cooper Nicholas.
 - i. Mr. Nicholas is an experienced Cross-Connection Control Surveyor and Cross-Connection Control Surveyor Trainer. Mr. Nicholas has completed over 15,000 residential and commercial Cross-Connection Control Surveys and has logged over 3,200 hours of survey and surveyor training activities.
 - ii. While Mr. Nicholas is the de facto instructor for each course, the content and educational materials presented in the course have been crafted and



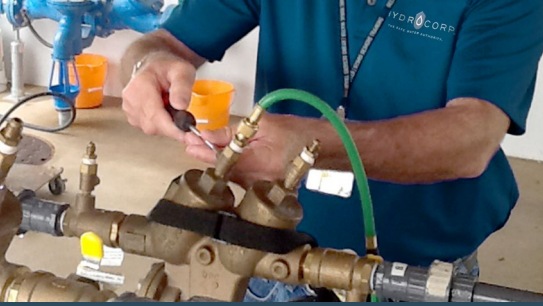
reviewed with the input, knowledge, and support of the entire SafeWater EDU Course Development Team.

Section 3: Ensuring Student Identity, Attendance, and Participation

- A. Students are required to utilize their email address to sign up for access to the Courses through our online platform, teachable.com. Their teachable account will be linked to their email address and a private password that will be known only to them.
 - i. In the event of a Student losing a password or if their chosen password becomes compromised, they may change their password or request that we change their password for them.
- B. Student attendance is also monitored by functions within teachable.com. We can see the last time a student has logged in and their progress along each component of each course.
- C. Student participation is ensured by three functions: three videos that have enforced watching, one activity, and one final quiz.
 - i. The enforced video watching function prohibits students from skipping ahead on any of the videos featured in the Course. It also prohibits Students from advancing through the Course without watching any video in its entirety.
 - ii. The Photo Gallery Assignment is a multiple choice, multiple question quiz on the images presented in the Photo Gallery. The student cannot advance without completing this assignment with a **70% correct score**.
 - iii. The Final Quiz is composed of 20 multiple choice questions. Students are required to complete the Final Quiz with a **70% correct score** to finish the Course and receive their Certificate of Completion.

Section 4: Course Completion Requirements

- A. As covered in Section 2.C, Students are required to view a Course Workflow Video, a Course Lesson Video, a Course Lesson Review Video, complete the Photo Gallery Assignment with a **70% correct score**, and complete the Final Quiz with a 70% correct score in order to finish the Course and receive their Certificate of Completion.



Section 5: Maintenance of Course Records

- A. SafeWaterEDU.com retain all course records for all students online in perpetuity. Names of Students, emails, Student scores, and dates they completed the course are among the available records.
- B. Our records are fully searchable. Verifying the attendance, participation, or course completion of any given Student can be done in a matter of seconds.

Section 6: Content Copyright

- A. All photo, video, animation, and digital graphic content is owned and copyrighted by HydroCorp.