



# Certified Water Technologist (CWT) Exam Study Resources

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## AWT Certification Committee Study Resources

The Certified Water Technologist (CWT) designation provides professional recognition and indicates that an individual has achieved a high level of experience, knowledge, and education in the industry. CWT exam candidates must have a minimum of five years of field experience.

The Certification Committee comprises current Certified Water Technologists (CWT) who know the value the CWT designation brings to their professional life; they diligently advocate for the certification program and work hard to augment the number of current CWTs in the field. The committee provides a mentor network for certification candidates. Please contact the certification program manager at (240) 404-6477 or [apike@awt.org](mailto:apike@awt.org) to obtain mentor contact information or if you need anything else.

### CWT Exam Handbook

<https://www.awt.org/certification/index.cfm>

It is important that you are familiar with the policies and procedures that govern the Certified Water Technologist (CWT) program. As you begin your certification journey, read the CWT Exam Handbook in its entirety to familiarize yourself with the process and to ensure you meet the criteria for becoming a CWT. After you have established your eligibility for candidacy, please review the following resources that have been compiled by the committee to help you navigate your path to certification.



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## Content Outline for the Certified Water Technologist Exam

The CWT exam covers a broad range of water treatment material related to the following general categories:

### I. General Water Treatment Knowledge

- a. Basic Water Treatment Chemistry and Terminology
- b. Metallurgy
- c. Feed Control Equipment and Instrumentation
- d. Heat Transfer Principles
- e. Survey
- f. Boiler and Cooling Water System Monitoring
- g. Federal Environmental and Transportation Affairs

### II. External Treatment

- a. Zeolite
- b. Boiler Feedwater Deaeration
- c. External Treatment Terminology
- d. Basic Water Chemistry

### III. Boiler Water Treatment

- a. System Design
- b. System Inspection Procedures
- c. Sampling and Analytical Testing Procedures
- d. Corrosion and Deposit Problems and Treatments
- e. Water Treatment Program Limitations

### IV. Cooling Water and Closed System Treatment

- a. System Knowledge
- b. System Sampling and Analytical Testing Procedures
- c. Cooling Water Corrosion
- d. Cooling Water Deposits and Scale
- e. Cooling Water Microbiological and Fouling
- f. Closed (Loop) Systems

### V. Health, Safety, and Environment

- a. Maintaining Personnel and Physical Plant Safety
- b. Identification of Federal Regulations
- c. Proper Disposal of Treated Waters



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The following template will help you plan the most effective course of study.

## CWT Exam Study Guide Template

Weeks to Exam	Calendar Dates	CWT Exam Section to Cover	Weekly Study Time Allotted	Date to Complete
16				
15				
14				
13				
12				
11				
10				
9				
8				
7				
6				
5				
4				
3				
2				
1				
0		Exam Day	0	0



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## Recommended Reading

<https://www.awtstore.org/mm5/merchant.mvc>

Many valuable textbooks, manuals, etc. are available to assist with your exam preparation.

The following publications come highly recommended and, in most cases, can be purchased directly from the AWT online bookstore:

- Raw Materials Specifications Manual
- Technical Reference & Training Manual (specifically Chapters 1-5)
- Boiler Water Treatment: Principles & Practice
- Cooling Water Treatment: Principles & Practice

*\* Asterisk denotes publication not currently available through the AWT online bookstore.*

## Technical Training Seminars

[https://www.awt.org/education\\_events/technical\\_training.cfm](https://www.awt.org/education_events/technical_training.cfm)

## Water Treatment Training

This twice yearly, three-day training seminar, taught by current CWTs, covers regulatory and safety issues, water chemistry and testing, calculations, boiler water treatment, cooling water chemistry, and much more.

## Online Education

[https://www.awt.org/education\\_events/safety\\_training\\_courses/](https://www.awt.org/education_events/safety_training_courses/)

AWT's online education lets you access courses, take competency quizzes, and participate in safety training all from your desktop.

- Technical Education <https://www.awt.org/education/catalog/> The Water Treatment Training portion of the Training Seminars is also available online. You can purchase individual sessions or the complete three days of training.
- Safety Education [https://www.awt.org/education\\_events/safety\\_training\\_courses/](https://www.awt.org/education_events/safety_training_courses/) The safety training videos provide hundreds of courses to choose from, and the system offers you easy reporting tools to monitor your progress.

## Online Quizzes

<http://www.awt.org/education/catalog/>



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The online quizzes are free of charge and typically used by current CWTs for recertification purposes. Read the accompanying *Analyst* article, and then answer 10 related questions; a score of 80% is required to pass. The questions are of a similar type and format to those on the exam.

## Preparation Strategies

Different methods of preparation work for different people; the following suggestions are offered from previous exam candidates to assist you with your studies.

- Utilize the recommended reading materials.
- Use the mock exam and the online quizzes to get a sense of how you should pace yourself when answering the exam questions on the actual day to be able to comfortably complete all of the questions.
- Find out what your weak and strong areas are. Concentrate your studies on subjects in which you need help, such as math, safety, formulations, etc.
- Space out your studying; review materials at least several times a week, focusing on one topic at a time.
- Establish a study schedule and stick to it. Set aside at least one hour a day to study uninterrupted, in a comfortable and quiet place with good lighting and little distraction.
- Take notes on what you've read, and review them regularly. Highlight important passages in your reading. Make a set of flash cards.
- Form a study group. Come prepared with specific questions or topics that you don't understand. Use the session as an enhancement to other study aids.
- Use current CWTs as mentors to help with the process from start to finish.

### Registering for the Exam

[https://www.awt.org/certification/apply\\_CWT.cfm](https://www.awt.org/certification/apply_CWT.cfm)

The CWT exam consists of 200 questions administered in paper/pencil format twice a year at the conclusion of AWT's Training Seminars and as a computer-based exam through Pearson Vue facilities located throughout the world. The certification program manager will provide you with a copy of a mock exam after you register.

### Scheduling a paper/pencil exam

[http://www.awt.org/education\\_events/technical\\_training.cfm](http://www.awt.org/education_events/technical_training.cfm)

The exam registration form is available in the training seminar registration brochure or in the online registration form. Pay close attention to deadline dates, as exam registration closes approximately one month prior to a respective seminar.

### Scheduling a computer based exam

<http://www.pearsonvue.com/awt/>



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## Approaching Exam Day

At this point, if you have successfully designed and implemented your course of study, you are as ready for the exam as you'll ever be.

### Two weeks prior:

- Get into the right mindset. Your psychological attitude to the exam is as important as your technical knowledge. If you're convinced you'll fail, you probably will.
- Spend your remaining time recalling what you know; quiz yourself on the content you have studied.
- Keep using your flash cards.
- Understand WHY an answer to a question is correct, not that you got it correct or incorrect.
- Continue to focus on your weakest areas. Concentrate your final study efforts there.
- Sleep well; eat well; hydrate.

### The night before:

- Stay away from your books and notes.
- Eat a well-balanced meal.
- Get a restful night's sleep.

### Exam day:

- Ensure you know and have everything you'll need: e.g., exam location; how to get there; exam start time; acceptable picture ID; bottled water.
- Arrive 30 minutes prior to your exam. Identify the exam room and the restroom area. Know the time deadline for being seated in the exam room.
- Pace yourself so you can answer all of 200 exam questions in the four-hour period allotted.
- Each question has four multiple choice answer options from which to select your answer. Remember! Even though each option may at first appear to be correct, **there is only one correct answer for each exam question.**
- Answer every question to the best of your ability. Points are not deducted for an incorrect answer.
- Relax. If you're well prepared, you've got this.

## Good luck!

**Your results should be available within six weeks.**