

# FIRE TECHNOLOGY (503)

## 503-101. Legal Aspects. (3 Credits)

Gain an introduction to local, state and federal laws that regulate emergency services; national standards influencing emergency services; standard of care; criminal law; tort law; liability; and a review of relevant court cases.

Prerequisites: 801-136 with a minimum grade of D-

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=101>)

## 503-103. Fire Service Employ Strategies. (1 Credit)

Learn strategies for getting a job in the fire service field, and study the promotional process. Discuss trends in correspondence, employment applications, job interviewing, interpersonal skill development and promotional skills.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=103>)

## 503-105. Emer Serv Employmnt Strategies. (2 Credits)

Learn strategies for getting a job in the fire or EMS service field, and study the promotional process. Discuss trends in correspondence, employment applications, job interviewing, interpersonal skill development and promotional skills.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=105>)

## 503-116. Driver/Operator Principles. (3 Credits)

Learn to apply basic defensive driving techniques. This course meets the requirements of NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, Driver/Operator - Pumper Job Performance Requirements (JPRs). You must have a temporary CDL or be affiliated with a fire department with access to a driving apparatus in order to take this course.

Prerequisites: 503-142 with a minimum grade of C

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=116>)

## 503-119. Emergency Responder Wellness. (1 Credit)

Focus on your mental and physical wellness as a first responder. Explore nutrition, physical fitness, mental health and cancer awareness. Use tools to assess your behaviors and develop a prescription for a healthier career as an emergency responder.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=119>)

## 503-130. Fire Protection Internship. (2 Credits)

Participate as a working member of a fire department during the second year of the Fire Protection Technician program. Work the 24-hour shift schedule at one of eight local fire departments, excluding class times. Perform the same duties as the firefighters. Fire department officials and the course instructor will collaborate on evaluation

Prerequisites: 503-720 with a minimum grade of C or 503-321 with a minimum grade of C or 503-142 with a minimum grade of C

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=130>)

## 503-142. Fire Fighting Principles. (4 Credits)

Understand basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Perform all practical evaluations necessary to control and extinguish fires and otherwise meet all requirements for Firefighter 1 certification with the State of Wisconsin. Prerequisites: Associate Dean approval

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=142>)

## 503-143. Building Construction. (3 Credits)

Provides the components of building construction that relate to fire and life safety.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=143>)

## 503-151. Fire Prevention. (4 Credits)

Acquire fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, and identification and correction of fire hazards. This meets all requirements for the Fire Inspector 1 certification for the State of Wisconsin.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=151>)

## 503-153. HazMat Awareness & Ops. (1 Credit)

Examines characteristics relating to hazardous materials including problems of recognition and mitigation. Prepares students to pursue Hazardous Materials Technician Level.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=153>)

## 503-154. Chemistry Hazardous Materials. (2 Credits)

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency service.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=154>)

## 503-156. Strategies, Tactics & Inc Mgmt. (4 Credits)

Analyze the principles of emergency response through utilization of an incident management system.

Prerequisites: 503-195 with a minimum grade of D and (503-142 with a minimum grade of D or 503-321 with a minimum grade of D or 503-720 with a minimum grade of D)

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=156>)

## 503-157. Fire Investigation. (3 Credits)

Acquire the fundamentals and technical knowledge needed for proper fire scene investigations.

Prerequisites: 503-195 with a minimum grade of C and (503-142 with a minimum grade of C or 503-321 with a minimum grade of C or 503-720 with a minimum grade of C)

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=157>)

## 503-158. Fire Tech & Communications. (3 Credits)

Learn various aspects of fire service communications, including dispatching, fire ground radio communications, 800 MHz radio systems, graphical information systems (GIS), global positioning systems (GPS), and other communications and related technologies. Gain exposure to new and emerging fire service technologies.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=158>)

**503-159. Fire Fighting Principles II. (2 Credits)**

Build on your skills from Fire Fighting Principles, exploring scene management, communication and fire operations processes. This course meets all requirements for entry to the Firefighter 2 certification process with the State of Wisconsin.

Prerequisites: (503-142 with a minimum grade of C or 503-720 with a minimum grade of C)

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=159>)

**503-191. Principles of Emergency Svcs. (2 Credits)**

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=191>)

**503-192. Principles Emer Svcs Sfty Surv. (3 Credits)**

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=192>)

**503-193. Fire Protection Systems. (3 Credits)**

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=193>)

**503-194. Fire Protection Hydraulics. (3 Credits)**

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve supply problems.

Prerequisites: (503-142 with a minimum grade of C or 503-720 with a minimum grade of C) and 804-107 (may be taken concurrently) with a minimum grade of D-

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=194>)

**503-195. Fire Behavior and Combustion. (3 Credits)**

This course explores the theories and fundamentals of how and why fires start, spread, and are controlled.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=195>)

**503-407. Sp Fire Br Trng OSHA Level 5. (1 Credit)**

In this course, the needs of specialized groups such as utility companies will be assessed and provided for. This course will meet the requirements as dictated by OSHA Level 5 Fire Brigades.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=407>)

**503-413. Fire Service Practices. (0.3 Credits)**

This course provides training to firefighters to meet the goals/objectives established by the requesting fire department.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=413>)

**503-419. First Receiver Operations. (0.8 Credits)**

This training will provide hospital staff with the tools and skills necessary to maintain an effective level of decontamination operational ability and to deal with hazardous materials incidents. This course will focus on how to handle a hazardous materials incident, how to recognize and respond to potential threats, hazard communication and decontamination procedures for patients prior to receiving medical care.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=419>)

**503-422. Fire Training Workshop. (0.2 Credits)**

This type of specialized instruction will provide "hands-on" experience for the firefighter in the areas of fire suppression or fireground evolutions.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=422>)

**503-422D. Fire Training Workshop-4 Hours. (0.1 Credits)**

A four-hour course of specialized instruction to provide "hands-on" experience for the firefighter in the areas of fire suppression or fireground evolutions to meet unique training needs.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=422D>)

**503-422E. Fire Training Workshop-3 Hours. (0.1 Credits)**

A three-hour course of specialized instruction to provide "hands-on" experience for the firefighter in the areas of fire suppression or fireground evolutions to meet unique training needs.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=422E>)

**503-422F. Fire Training Workshop-2 Hours. (0.05 Credits)**

A two-hour course of specialized instruction to provide "hands-on" experience for the firefighter in the areas of fire suppression or fireground evolutions to meet unique training needs.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=422F>)

**503-444. Fire Officer II. (3 Credits)**

This course meets Wisconsin requirements and national fire protection association standards for Fire Officer level II. Upon successful completion, the student will be eligible to participate in the exam process for Wisconsin state certified fire officer level II.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=444>)

**503-457. Emer. Services Instructor I. (4 Credits)**

This course will train the student in the techniques of instruction. The course was designed to provide the ESI I candidate with the information needed to meet the job performance requirements (JPRs) in NFPA 1041, Standard for Fire Service Instructor Professional Qualifications, Chapter 4. (This course was formerly known as Fire Instructor I.)

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=457>)

**503-457A. ESI Internship. (0.9 Credits)**

This course requires participation in Emergency Services Instructor work experience with onsite supervision. Internship learning objectives are developed by the student and faculty member to provide appropriate work-based learning experiences. The Emergency Services Instructor I candidate will complete 30 hours of shadowed teaching experience, including orientation, preparation and reflective practice. Students who successfully complete the internship will be eligible for Emergency Services Instructor I Certification.

Prerequisites: 503-457 with a minimum grade of S

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=457A>)

**503-460. Rapid Intervention Training. (2.4 Credits)**

In this course, firefighters will learn the techniques and procedures used by rapid intervention teams. The philosophy of an RIT will be discussed, including the equipment an RIT should be outfitted with, and the strategy and tactics required to be effective.

Prerequisites: 503-424

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=460>)

**503-460A. Rapid Intervention Training. (0.8 Credits)**

This workshop is designed for the Firefighter II candidate to learn an overview of RIT activation and operations.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=460A>)

**503-488. Fire Training Grounds Orient. (0.8 Credits)**

This course is for certified Emergency Service Instructors who are interested in utilizing the WCTC Fire Training Grounds and facilities to conduct trainings for their affiliated fire departments. Fire Training Grounds policies and procedures will be reviewed in addition to Live Burn Policies and safety practices. Participants should plan to bring turn-out gear and SCBA to this training.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=488>)

**503-720. Firefighter I Cert. (3 Credits)**

This course meets the NFPA 1001, Standard for Firefighter Professional Qualifications, training requirements for WTCS Firefighter I certification. (Students must also complete the Hazardous Materials Operations course to be eligible for WTCS Firefighter I certification testing.) Students are given the opportunity to learn, develop and practice the practical skills required to perform as a firefighter, while also receiving the didactic theory required to support those skills and related firefighting functions. This course extends past the entry-level courses to better prepare the student to function as a firefighter while also providing the necessary education and skills to be eligible for WTCS Firefighter I certification testing.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=720>)

**503-730. Firefighter II Cert. (1 Credit)**

This course meets the NFPA 1001, Standard for Firefighter Professional Qualifications, training requirements for WTCS Firefighter II certification. (Students must also have completed the Hazardous Materials Operations course, in addition to holding WTCS Firefighter I certification to be eligible for WTCS Firefighter II certification testing.) Through classroom and practical skills instruction, the student will learn to apply advanced firefighting skills and education to mitigate various emergencies.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=730>)

**503-743. Driver/Operator-Pumper Cert. (2 Credits)**

This course meets the NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, Pumping Apparatus, educational requirements for WTCS Driver/Operator-Pumper certification. Subjects covered in the course include fire apparatus, maintenance, driving principles, emergency vehicle operation, fire apparatus positioning, water supply, sprinkler systems, fire pump theory, hydraulics terminology, hydraulics math, hydraulic principles, operating fire pumps and pump testing. Hands-on training will be provided. Students will need to complete fire department-proctored out-of-class driving time.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=743>)

**503-747. Driver/Operator-Aerial Cert. (3.6 Credits)**

This course meets the NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, Aerial Apparatus, educational requirements for WTCS Driver/Operator-Aerial certification. To be eligible for certification testing upon successful completion of this course, students must have WTCS Driver/Operator-Pumper certification.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=747>)

**503-750. Fire Inspector I-WI Cert. (6 Credits)**

This is the WTCS-approved course to meet all objectives of the National Fire Protection Association's 1031 Standard for Professional Qualifications for Fire Inspector, Level 1. Upon successful completion of this course, students are eligible to seek WTCS Fire Inspector I certification.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=750>)

**503-763. Fire Officer I Cert. (1 Credit)**

This course meets the NFPA 1021, Standard for Fire Officer Professional Qualifications, training requirements for WTCS Officer I certification. The student will be presented with required material and be given the opportunity to demonstrate skills, abilities and knowledge through activities designed for fire service organization officers. To be eligible for certification testing upon successful completion of this course, the student must also hold current WTCS Firefighter II certification along with having successfully completed the WTCS Instructor I course.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=763>)

**503-764. Fire Officer II Cert. (4 Credits)**

This course meets the NFPA 1021, Standard for Fire Officer Professional Qualifications, training requirements for WTCS Officer II certification. To be eligible for certification testing upon successful completion of this course, the student must already hold WTCS Officer I certification.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=764>)

**503-780. Haz-Mat Operations. (2 Credits)**

This course meets the NFPA 1001, Standard for Firefighter Professional Qualifications, training requirements to meet the Hazardous Materials Operations course completion requirement to be eligible for WTCS Firefighter I certification testing. Students will learn how to deal effectively with a hazardous materials emergency involving highway, rail and terminal operations.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=503&num=780>)