



**STANDARD OPERATING GUIDELINE  
STATE FIRE ACADEMY**

<b>SUBJECT:</b> <i>High School/Career &amp; Technology Firefighter I and II Program</i>			
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**I. Purpose**

Fire service training for youths over the age of 16 is recognized by the fire service in the State of South Carolina as a valuable means of recruiting and retaining future volunteer and career firefighters. This document provides an overview of the requirements for establishing Firefighter I and Firefighter II courses at South Carolina High School & Career and Technology Centers (CTCs). The overarching goal is to help program leaders and administrators establish fire service training that complies with the rules and instructional objectives set forth by National Fire Protection Association (NFPA) 1001, *Standard for Fire Fighter Professional Qualifications*. This information also is intended to help ensure the consistency and effectiveness of firefighter programs offered throughout the state.

**II. Scope**

This policy affects those involved in the implementation of a High School/CTC Firefighter I & II program: SCFA Staff, Sponsoring Fire Departments, as well as the High School/CTC program instructor, participating students and their parents/guardians.

**III. Statement of Guidelines**

**A. Program Overview**

**1. Program Scheduling**

The liaison for the sponsoring fire department must notify SC State Fire of the intent to teach a course by mid-summer and provide an estimate of the number of students for the program by the end of the first week of school.

**2. Course Curriculum**

This program will require coursework to include; First Aid & CPR, Firefighter I, Hazardous Materials Awareness (HMA), Hazardous Materials Operations (HMO), Firefighter II, and Basic Auto Extrication (BAE 3330). These curriculum materials can be acquired from the SC State Fire Academy.

Any supplemental learning materials instructors wish to use in their courses should be written at a level comparable with the students' general reading abilities.

For complete descriptions of SC State Fire Academy courses, see the online catalog at [www.scfa.state.sc.us/education/](http://www.scfa.state.sc.us/education/).

### 3. Course Design & Structure

The exact duration of the Firefighter I and Firefighter II courses will vary, depending on the seat time required to fulfill the requirements for NFPA, including the prerequisites and testing.

A Firefighter I course typically requires approximately one school year (two semesters, 150 hours). The cognitive portions of the training may be delivered in self-directed online setting, in a traditional classroom setting or a blend of both. First Aid/CPR training may be taught before the course begins or during the first week of classes. Instructors may choose to design the course so that students complete HMA requirements through an online course on their own before the Firefighter I course begins. Providing an introduction to the fire service rank structure early in the program helps students put prerequisite training in the fire service context.

In some instances, High School/CTC fire instructors administer HMO *after* completing the Firefighter I course curriculum and testing. This course design helps maintain student interest by getting them in bunker gear as quickly as possible. This also gives students a break in the hazmat content, which some students may find challenging. If following this plan, Firefighter I certificates are withheld from students until they have successfully completed HMO training.

School leaders should determine the most appropriate teaching method and time schedule for their particular program. The class teaching schedule and syllabus can be adjusted accordingly. Depending on the schedule chosen, an occasional Saturday lecture, skill training session or field trip may be needed in order to provide enough class time to meet the overall course requirements.

### 4. Prerequisites

#### a. 1196-Firefighter I Program

Before beginning a Firefighter I course, students must successfully complete the following prerequisites. If students do not have the prerequisites before entering the Firefighter I program, the prerequisites must be incorporated into the course content. Students must pass the End of Course exam and all evaluated skills with a 70 or higher to receive SCFA transcript credit.

- First Aid & CPR: This training, which may be based on any recognized accredited course, such as those offered through the American Heart Association or American Red Cross.
- Hazardous Materials Awareness
- Hazardous Materials Operations

Note: Beginning with school year 2018-19 HMA and HMO must comply with NFPA 1072 Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications.

b. 1197-Firefighter II Program

Before beginning a Firefighter II course, students must successfully complete the following prerequisite. If students do not have the prerequisite before entering the Firefighter II program, the prerequisite must be incorporated into the course content. Students must pass the End of Course exam and all evaluated skills with a 70 or higher to receive SCFA transcript credit.

- Basic Auto Extrication (BAE 3330)

5. Class Size & Instructor Ratio

Class size should be limited to 25 students, according to SCFA requirements. Additional instructors must assist with moderate/high risk activities, such as live burns. Firefighters from the host fire department are strongly encouraged to assist with classroom and fire ground training activities. Each skill sheet in the SCFA curriculum specifies the need for additional instructors.

6. Facilities & Equipment

Any facility or equipment item available to the training program may be used. The host fire department should loan bunker gear, SCBA and PASS devices, cylinders, tools, equipment, apparatus and other items not owned by the school. However, all equipment must meet applicable NFPA requirements and safety standards.

a. Each firefighter student should have access to:

- A full set of bunker gear (turnout coat and pants; flash hood; structural firefighting boots, gloves and helmet; safety glasses or goggles).
- Basic hand tools, tarps and ropes.
- A computer connected to the internet. Computer and internet connection needs will vary over time. Please contact SC State Fire for the latest technology requirements.
- A classroom with adequate lighting, heating, plumbing, ventilation and seating.

b. Facilities and equipment required for conducting fire training typically include, but are not limited to, the following types of items:

- A multiple-story tower-type structure, where students can use ladders, advance hose lines, perform simulated rescues and hoist equipment.
- Structures and training devices that allow for forcible entry and ventilation drills on doors, windows, roofs, floors, ceilings and partitions.
- Hydrant and/or drafting facilities.
- Facilities for live fire training that will, when required, permit the use of breathing apparatus in an enclosed structure, and will enable students to practice extinguishing flammable liquid, propane and natural gas and vehicle fires.
- Pumper, ladder and other necessary apparatus.

- Extinguishers, ladders, nozzles, tools, appliances and equipment necessary to meet minimum training requirements.
- A sufficient number of self-contained breathing apparatus (SCBA) for use by firefighters engaged in training in hazardous atmospheres.

If a school does not have access to equipment and facilities and only has very limited/minimal support from a fire department, then they cannot offer an NFPA -level firefighter course. A school in this situation could consider offering an introductory-level course available through the Department of Education. This introductory level course is also available for students under 16 years of age.

*Note: The above lists provide an overview of equipment needs and is not intended as a required purchase list. Each skill sheet in the SC State Fire Academy curriculum includes a list of equipment and props needed in order to perform the specific type of training. Carl D. Perkins grants or other funding obtained through organizations may be available to purchase equipment for school firefighter programs. Requests for funding should be made through the school program's regional supervisor.*

## 7. Program Credit

### a. School Program Credit

Academic testing and school credit requirements should be established by the school system and the course coordinator. Successful completion (cumulative score) of the Firefighter I or II program and the prerequisites allows a student to receive high school transcript credit.

### b. SC State Fire Program Credit

- 1196-Firefighter I Program: Successfully passing all prerequisites, the End of Course exam and skills testing with a 70 or higher will allow a student to receive SCFA transcript credit for HMA, HMO, and Firefighter I. Students with SC State Fire transcript credit for 1196-Firefighter I and all prerequisites may take the Firefighter I written challenge exam to receive a FFI IFSAC/ProBoard certificate.
- 1197-Firefighter II Program: Successfully passing all prerequisites, the End of Course exam and skills testing with a 70 or higher will allow a student to receive SCFA transcript credit for Auto Extrication and 1197-Firefighter II. Students with SC State Fire transcript credit for Firefighter II and all prerequisites may take the Firefighter II written challenge exam to receive a FFII IFSAC/ProBoard certificate.
- The end-of-course 1196, 1197 & HMO exams are administered by the program instructor; however, all graded answer sheets (provided by the SCFA) should be submitted in the completed course paperwork package.

### c. College Credit

An articulation agreement between SC State Fire and the SC Technical College system may allow students to receive credit at one of the 16 SC Technical Colleges. Students should check with the Technical College of their choice to see if credit is available.

## 8. Retesting

Retesting in this program follows the SCFA Retesting Policy.

9. Program Fee

The SCFA requires a \$5 registration fee for each student's enrollment in Hazardous Materials Awareness, Hazardous Materials Operations, Basic Auto Extrication, Firefighter I and Firefighter II.

B. Eligibility

1. Students

Students who are not formally enrolled in a high-school/CTC 1196-Firefighter I or 1197-Firefighter II program may not participate in any activities in the course.

To train to the level of NFPA 1001 students must:

- Be 16 years of age.
  - Be a Junior Member or an Explorer (uncompensated). The SC State Firefighters' Association can provide information about establishing a Learning for Life/Explorer program. There are fees and training requirements associated with establishing a post.
  - Be enrolled in a South Carolina Career and Technology Center, high school or a similarly qualified academic institution.
  - Meet the grade requirements of their school and remain in good academic standing while in the course.
  - Provide a copy of the sponsoring fire department's liability insurance for Junior Firefighters or provide proof of personal insurance. (Copies maintained by the CTC/HS)
  - Pass a physical exam that includes clearance for using SCBA.
    - Minimum requirement: Sports Exam
    - Recommended requirement: A physical that meets the intent of NFPA 1582. These job requirements should be shared with the licensed medical practitioner who performs the students' exams.
  - Be Fit Tested by the Sponsoring Fire Department.
  - Before the course begins, disclose information about a physical or learning disability that could potentially affect classroom or fire ground performance or safety.
  - Provide an Explorer/Junior Member registration form signed by parents or legal guardians by the first day of class. The SC State Fire Academy Learning for Life Exploring Program Registration Form developed specifically for the CTC/HS programs should be submitted for registration. This form includes parental release and authorization statements. A signed copy of this form must be on file at the High School/CTC for each student.
  - Comply with class attendance requirements throughout the duration of the course.
- a. Prohibited Student Activities
- The SCSFA Junior Firefighter Program Recommended Guidelines (September 2010) list general restrictions of tasks minors may and may not perform while serving as a

Junior Member. For more information, see <http://scfirefighters.org/wp-content/uploads/2011/07/Junior-member-guidelines.pdf>.

2. Program Instructors

The classroom instructor must receive/maintain instructor certification from SC State Fire Academy. To earn SC State Fire instructor certification, an instructor must hold current specialty classification for the course they are teaching (such as Firefighter I, Firefighter II, or other courses being taught). The SC State Fire Academy will provide assistance to High School/CTC instructors to help them complete the appropriate training. This may be achieved through regular Instructor Orientation Workshops, Accelerated Instructor Orientation Workshops, or a customized process arranged through the Regional Office. High School/CTC instructors will be required to maintain certification with SC State Fire by attending Instructor recertification workshops.

SC State Fire instructors may also choose to complete one of the alternative pathways if they wish to pursue state teacher certification. For more information, review the following resources on the State Department of Education website.

- Educator Services: <https://ed.sc.gov/educators/>
- South Carolina Educator Certification Manual: <https://ed.sc.gov/educators/teaching-in-south-carolina/aspiring-educators/applying-for-certification/>
- Alternative Pathways to Licensure: <https://ed.sc.gov/educators/teaching-in-south-carolina/alternative-certification/alternative-certification-programs/career-and-technology-education-cate-work-based-certification-program/>

*Note: As part of course evaluations and as a means to improve the course delivery and structure, students may be asked to complete confidential questionnaires concerning demographic information, their opinion of assignments and activities, the textbook and other components of the curriculum. No opinions should be reported as coming from any individual without the consent of the student and parent.*

C. Stakeholder Responsibilities

1. Sponsoring Fire Departments

High School/CTC Firefighter programs must be affiliated with or sponsored by a fire department or qualified fire agency. A relationship between the fire instructor or program leader and the sponsoring fire department/agency must be maintained to ensure the active involvement of fire department members in the mentoring of students, facilitating student career development and assisting with classroom instruction, skills training and field trips. Since High School/CTC fire training provides a recruitment base, it would be appropriate for a sponsoring department to assist with funding SC State Fire Academy student registration fees.

Firefighters from local departments may serve as classroom and fire ground teaching assistants. The Fire Chief of the sponsoring fire department must qualify and certify his personnel to the tasks assigned and to ensure compliance with state regulations and federal child labor laws.

Fit testing for SCBA is the responsibility of the sponsoring fire department. Specific requirements may vary according to the department.

The sponsoring fire department is the point of contact for the high school. The liaison for the sponsoring department will be responsible for contacting the regional office with all request and questions concerning the program.

2. **Guidance Counselors**

Guidance/career counselors should understand the physical requirements and nature of the course before enrolling students in fire service training. They should also understand that textbooks are written at the college level. While firefighting is a physical activity, it also requires a high level of cognitive work and testing. Students with disabilities who are admitted to the program should have an individualized education plan (IEP) for them to complete the course. The program instructor of the Firefighter I and II program may meet with the special education teachers to develop a student's IEP. While reasonable accommodations for a student with special needs must be made so they can complete the course in some sort of achievable fashion, a student cannot qualify to take an exam for SCFA transcript credit or IFSAC/ProBoard certificate if s/he is unable to meet the full requirements for becoming a professional firefighter.

3. **Program Instructors**

Before the beginning of a Firefighter I or II course, it is strongly recommended that instructors hold a meeting for students and their parents/guardians. Participants in the course will be exposed to physical and mental stress beyond those experienced in a typical classroom setting. Instructors should ensure parents are aware of the nature of the course. To make sure all of those involved are fully informed, instructors should provide a packet that includes the following types of information:

- Letter from the school's top administrator and/or the course coordinator or department head.
- An overview of the NFPA standards on which courses are based.
- A description of the course and course syllabus.
- Location of off-campus sites where training will be conducted.
- Grooming and clothing requirements.
- Prerequisites for training.
- Physical training expectations during the course.
- Explanation of possible risks of injury associated with fire suppression and other training activities.
- Expectations for class grades, personal conduct, class assignments, attendance and daily preparation.
- Computer and internet access requirements.
- Proof of insurance.
- Physician's physical for the respiratory evaluation for SCBA use (Junior Members will be given a physical exam through their sponsoring fire department).
- Checklist of required forms, documents and prerequisite tasks.
- SCFA HS/CTC registration forms.
- Required parental approval forms.
- Required host department Chief's approval.

- Written permission for use of photos on web pages, social media and printed publications of students engaged in classroom and skill activities.
- Written permission for students to participate in academic research.

**IV. Attachments**

- A. NFPA 1582 Essential Job Tasks & Descriptions
- B. List of Additional Resources

**V. Interpretation Contact**

- A. Bonita Watters, Curriculum Manager

***Note:** These guidelines were updated based on recommendations made at the 2017/2018 meetings at the SC State Fire Academy, between members of the South Carolina State Firefighters' Association, the South Carolina State Fire Academy, the South Carolina Department of Education and High School/CTC instructors throughout the state.*

*The original guidelines (2014) were the outcome of the Career and Technology South Carolina Education and Business Summit fire program meeting held June 24-25, 2013 in Greenville, SC.*

*This project is a collaborative effort between the South Carolina State Firefighters' Association, the South Carolina Fire Academy, the South Carolina Department of Education, and Career and Technology Center fire service instructors throughout the state.*



**NFPA 1582, CHAPTER 5, SECTION 5.1 – ESSENTIAL JOB TASKS AND DESCRIPTIONS**

1. Performing fire-fighting tasks (e.g. hose line operations, extensive crawling, lifting and carrying heavy objects, ventilating roofs or walls using power or hand tools, forcible entry), rescue operations, and other emergency response actions under stressful conditions while wearing personal protective ensembles and self-contained breathing apparatus (SCBA), including working in extremely hot or cold environments for prolonged time periods.
2. Wearing an SCBA which includes a demand valve-type positive-pressure face piece or HEPA filter masks, which requires the ability to tolerate increased respiratory workloads.
3. Exposure to toxic fumes, irritants, particulates, biological (infectious) and non-biological hazards, and/or heated gases, despite the use of personal protective ensembles and SCBA.
4. Depending on the local jurisdiction, climbing six or more flights of stairs while wearing fire protective ensemble weighing at least 50 lb (22.6 kg) or more and carrying equipment/tools weighing an additional 20 to 40 lb (9 to 18 kb).
5. Wearing fire protective ensemble that is encapsulating and insulated, which will result in significant fluid loss that frequently progresses to clinical dehydration and can elevate core temperature to levels exceeding 102.2°F (39°C).
6. Searching, finding, and rescue-dragging or carrying victims ranging from newborns up to adults weighing over 200 lb (90 kg) to safety despite hazardous conditions and low visibility.
7. Advancing water-filled hose lines up to 2½ in. (65 mm) in diameter from fire apparatus to occupancy [approximately 150 ft (50 m)], which can involve negotiating multiple flights of stairs, ladders, and other obstacles.
8. Climbing ladders, operating from heights, walking or crawling in the dark along narrow or uneven surfaces, and operating in proximity to electrical power lines and/or other hazards.
9. Unpredictable emergency requirements for prolonged periods of extreme physical exertion without benefit of warm-up, scheduled rest periods, meals, access to medication(s), or hydration.
10. Operating fire apparatus or other vehicles in an emergency mode with emergency lights and sirens.
11. Critical, time-sensitive, complex problem solving during physical exertion in stressful, hazardous environments, including hot, dark, tightly enclosed spaces that is further aggravated by fatigue flashing lights, sirens, and other distractions.
12. Ability to communicate (give and comprehend verbal orders) while wearing personal protective ensembles and SCBA under conditions of high background noise, poor visibility, and drenching from hose lines and/or fixed protection systems (sprinklers).
13. Functioning as an integral component of a team, where sudden incapacitation of a member can result in mission failure or in risk of injury or death to civilians or other team members.

This information is provided as a general guideline.

A complete copy of the NFPA 1582 standard can be viewed or purchased directly at [www.nfpa.org](http://www.nfpa.org).

## **ADDITIONAL LIST OF RESOURCES**

- Electronic Code of Federal Regulations  
Department of Labor, Wage and Hour Division 29 CFR Parts 570-579, Child Labor Regulations, Orders and Statements of Interpretations: Final Rule Federal Register, Vol. 75, No. 97, May 20, 2010  
[www.ecfr.gov](http://www.ecfr.gov)
- Learning for Life Exploring Program and Junior Member Training for 16- and 17-Year-Olds  
Administrative Guideline AG-007 South Carolina Department of Labor, Licensing and Regulation, Division of Fire & Life Safety, October 2010  
[www.scfa.state.sc.us/pdf/procedures/ag-007.pdf](http://www.scfa.state.sc.us/pdf/procedures/ag-007.pdf)  
or  
[http://scfaonlinetraining.org/pluginfile.php/32/mod\\_page/content/215/AG%20007.pdf](http://scfaonlinetraining.org/pluginfile.php/32/mod_page/content/215/AG%20007.pdf)
- National Fire Protection Association Codes and Standards  
Most current edition of NFPA 1001, Standard for Fire Fighter Professional Qualifications, and NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents  
<http://www.nfpa.org>
- Regional Live Burn Safety Guideline  
Administrative Guideline AG-006 South Carolina Department of Labor, Licensing and Regulation, Division of Fire & Life Safety, October 2008  
Contact SCFA for more information.
- SC State Firefighters' Association Junior Firefighter Program Recommended Guidelines (September 2010)  
<http://scfirefighters.org/wp-content/uploads/2011/07/Junior-member-guidelines.pdf>
- South Carolina Technical College System Guidelines for Awarding Exemption Credit for Certification Training Offered by the National Fire Academy or the South Carolina Fire Academy and Articulation List  
[www.scfa.state.sc.us/PDF/College%20Course%20Articulation%20List.pdf](http://www.scfa.state.sc.us/PDF/College%20Course%20Articulation%20List.pdf)
- Title 41 – Labor and Employment, Chapter 21, Future Volunteer Firefighters Act of South Carolina  
South Carolina State Codes of Law, Act 159, Section 2 (effective May 12, 2010)  
<http://www.scstatehouse.gov/code/t41c021a.php>

*The above list of references was accurate as of December 30, 2013. Chiefs, instructors, academic program supervisors, and administrators should consult the most current versions of these documents.*