



# CTE Approval Self-Study Report

## Fire Rescue

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## Self-study

*Self-study is the first step in the career and technical education approval process. The self-study review is required for all existing programs and new programs seeking approval. Its purpose is to bring together partners to review the CTE program, propose relevant modifications, and evaluate the degree to which the program meets the policy requirements approved by the Board of Regents on February 6, 2001.*

Self-study review will include:

Curriculum review

Benchmarks for student performance and student assessment

Teacher certification and highly-qualified status of instructional staff

Work-based learning opportunities

Teacher and student schedules

Resources, including staff, facilities, and equipment

Accessibility for all students

Work skills employability profile

Professional development plans

Projected number of students to be served

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>

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## Fire/Rescue

Quick Facts: Firefighters	
2015 Median Pay	\$46,870 per year \$22.53 per hour
Typical Entry-Level Education	Postsecondary nondegree award
Work Experience in a Related Occupation	None
On-the-job Training	Long-term on-the-job training
Number of Jobs, 2014	327,300
Job Outlook, 2014-24	5% (As fast as average)
Employment Change, 2014-24	17,400

### What Firefighters Do

Firefighters control and put out fires, and respond to emergency situations where life, property, or the environment is at risk.

### Work Environment

When on the scenes of fires and other emergencies, the work can be very dangerous. When not on the scene of an emergency, firefighters spend their time at fire stations, where they sleep, eat, and remain on call during shifts that often last 24 hours. Many work more than 40 hours per week.

### How to Become a Firefighter

Firefighters typically need a high school diploma and training in emergency medical services. Most firefighters receive training at a fire academy, must pass written and physical tests, complete a series of interviews, and hold an emergency medical technician (EMT) certification.

### Pay

The median annual wage for firefighters was \$46,870 in May 2015.

### Job Outlook

Employment of firefighters is projected to grow 5 percent from 2014 to 2024, about as fast as the average for all occupations. Competition for jobs will likely be strong. Physically fit applicants with high test scores and paramedic training will have the best job prospects.

### Related Occupations

Occupational Title	SOC Code	Employment, 2014	Projected Employment, 2024	Change, 2014-24	
				Percent	Numeric
Fire inspectors	33-2020	14,100	15,000	6	900
Fire inspectors and investigators	33-2021	12,400	13,100	5	700
Forest fire inspectors and prevention specialists	33-2022	1,700	2,000	13	200

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2016-17 Edition, EMTs and Paramedics, on the Internet at <https://www.bls.gov/ooh/healthcare/emts-and-paramedics.htm> (visited February 13, 2017).

## New York Employment Demand Profile: **Fire and Rescue**

Source: Labor Insight Jobs (Burning Glass Technologies), Summary Demand and Requirements Table by Occupation, New York state data, Mar. 01, 2016 - Feb. 28, 2017, Monday, March 6, 2017

Category:		Demand and Employment				Salary		Education level based on posting requirements (*excluding NA)					Education level of employed individuals		
Source:		Burning Glass	BLS/OES, 2015			Burning Glass	BLS/OES, 2015	Burning Glass					ACS, 2014		
SOC Code (ONET-6)	Occupation Title	Number of Job Postings	Number Employed	% Change in Employment, 2014-2015	Projected Statewide Change in Employment, 2016-2026	Mean Advertised Salary	Mean Salary	% Requiring high school*	% Requiring Post-Secondary or Associate's Degree*	% Requiring Bachelor's Degree*	% Requiring Graduate or Professional Degree*	% with Unspecified Education	% with a H.S. diploma or less	% with Some College or an Assoc.	% with a Bachelor's or higher
<b>33-2021</b>	<b>Fire Inspectors and Investigators</b>	90	620	-37%	N/A	N/A	\$60,440	77%	19%	11%	8%	41%	21%	51%	28%
<b>33-2011</b>	<b>Firefighters</b>	63	10,970	-9%	6.3%	\$47,958	\$66,930	93%	0%	26%	4%	57%	18%	63%	19%
<b>33-2022</b>	<b>Forest Fire Inspectors and Prevention Specialists</b>	31	N/A	N/A	N/A	N/A	N/A	58%	4%	33%	8%	23%	21%	51%	28%

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## A. Curriculum Review

*The curriculum review is a step in the self-study process. It is an opportunity for members of the self-study team to evaluate the proposed curriculum for completeness in terms of the knowledge, skills, and competencies required in the program field. The team reviews the curriculum to ensure that course content in the career and technical education program meets State Education Department regulations, contributes to achievement of state and industry standards, and prepares students for successful completion of a technical assessment. Approved curriculum content is nonduplicative, challenging, organized along a continuum of difficulty, and free of bias.*

*CTE program approval does not constitute Department approval or endorsement of proprietary curriculum or related curriculum products. Program approval indicates only that a school district or BOCES has provided the Department with assurances that the curriculum review has been completed.*

### Process

- The school district or BOCES identifies the faculty members and other individuals who will be involved in conducting the curriculum review
- The school district or BOCES determines the procedures used in completing the curriculum review
- Reviewers confirm that CTE program content aligns with state CDOS standards, relevant state academic standards, and related business and industry standards
- Reviewers confirm that CTE program content includes integrated or specialized units of credit
- Reviewers confirm that the CTE program meets unit of credit and other distributive requirements
- 

### Documentation

Documentation of the curriculum review is maintained by the school district or BOCES and is updated whenever modifications are made to the approved CTE program. Recommendations from curricular review should be included in the self-study report and reviewed by the external committee.

### Resources

New York State graduation requirements

<http://www.emsc.nysed.gov/part100/pages/1005.html>

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>



# Fire Rescue

It takes a special set of skills to become a firefighter: Courage, strong communication and the ability to make quick decisions – not to mention physical strength and stamina. All of these skills are put to the test when a firefighter responds to an emergency.

Firefighters are required to enter burning buildings to extinguish a fire and rescue individuals. Firefighters may also be responsible for connecting hoses to hydrants, operating pumps to power the hoses, climbing ladders and using other tools to break through debris. In addition, one of the biggest parts of the job doesn't involve fire at all – it's responding to medical emergencies and providing emergency medical care.

**As a student in the Fire/Rescue program at the Public Service Leadership Academy at Fowler, you'll learn about fire prevention and develop critical fire skills necessary to handle the challenges and demands of fire protection:**

- Fire awareness and safety management
- Tactics and operation
- Hazardous materials
- Fire hydraulics

**CAREER OPPORTUNITIES:**

Firefighter, Fire Protection Professional, Industrial Fire Safety Professional, Fire Investigator

## Course of Study Fire Rescue

9th Grade	10th Grade	11th Grade	12th Grade
<ul style="list-style-type: none"> <li>PSLA Exploratory (1 Credit CTE)</li> </ul>	<ul style="list-style-type: none"> <li>Fire Rescue 100 FRP100 (1 Credit CTE)</li> </ul>	<ul style="list-style-type: none"> <li>Fire Rescue 200 FRP200 (2 Credits CTE) FPT 1580CC</li> <li>Fire Rescue Integrated Science (CTE300) (1 Credit)</li> </ul>	<ul style="list-style-type: none"> <li>Fire Rescue 300 FRP300 (1 Credit CTE) FPT 1600CC</li> <li>Fire Rescue CTE Specialized Science (CTE301) (1 Credit)</li> <li>Fire Rescue 300 CTE Integrated ELA (CTE400) (1 Credit)</li> </ul>

### DISTRICT REQUIREMENTS

- Students must pass CTE Fire/Rescue 100, 200 and 300 to challenge the course approved technical assessment.
- All students in 9th grade will receive Career and Financial Management and CTE Exploratory classes.
- Student will have earned the 12th grade integrated ELA credit upon successful completion of CTE Fire/Rescue 100, 200 and 300.
- Student will have earned the 11th grade integrated Science credit upon successful completion of CTE Fire/Rescue 100 and 200.

### CONSIDERATIONS

- Student will receive the CTE Endorsement upon successful completion of the CTE Fire/Rescue sequence and must pass the prescribed technical assessment and complete a commencement level project.

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**Syracuse City School District**  
**Career and Technical Education Program**  
**Course Syllabus**  
**FRP100: Fire Rescue 100**



### **Program Overview**

The Fire Rescue program at PSLA is designed to provide students with experience in the field of firefighting and to prepare them for the fire academy. Throughout the program, a wide-range of topics will be covered ranging from fire safety and awareness, fire suppression, firefighter survival skills to planning for a city wide disaster. Students will become certified in CPR and First Aid, receive FEMA certifications and CFR Emergency Medical Responder certification. The program offers job shadow and internship experiences, the opportunity to earn college credits from OCC and credit for the completion of New York State Firefighter courses. Those successfully completing the program will earn a Regents diploma and pass an industry-based assessment to receive a technical endorsement on their diploma. Career opportunities include Firefighter, Fire Protection Professional, Industrial Fire Safety Professional and Fire Investigator.

### **Course Description**

In this introductory course, students will become aware of the broad field of fire suppression. Students begin to develop the fire skills necessary for handling the challenges and demands of fire protection. Topics covered will include the science of fire, fire protection and prevention, fire safety, the basic organization and functions of a fire department and other agencies involved in fire protection. Other topics covered are statistics of fire loss and a review of current and future fire protection problems.

### **Pre-Requisites**

CFM

### **Course Objectives**

Students will:

1. Practice the personal and physical attributes of successful firefighters.
2. Understand basic firefighting tactics and procedures.
3. Demonstrate proper use of personal protective equipment (PPE).
4. Understand types and functions of various fire apparatus and common equipment carried by Fire Rescue workers.
5. Apply the technical terminology of fire service.
6. Understand how various emergency providers interact with each other.

### **Integrated Academics**

1 CTE Credit for successful completion of this course.

### **Equipment and Supplies**

- **School will provide:** Textbooks and all other print material; PT Gear (2 PT T-shirts, 1 sweat suit) Class uniform (1 uniform pant, 1 uniform shirt, 1 pair shoes, 1 belt)
- **Student will provide:** N/A



**Textbook**

IFSTA- Essentials of Firefighting and Fire Department Operations. 6<sup>th</sup> Edition

**Grading**

Tests:	20%	Quizzes:	15%
Classwork:	15%	Homework:	10%
Participation:	20%	PT Lab Grade:	20%

**Additional Course Policies**

Students must receive a standard sports physical for entry into this course.  
Students are required to follow all classroom and lab safety rules. Students must participate in weekly Physical Training Drills.

**Course Calendar**

Quarter	Units of Study
1	<ul style="list-style-type: none"><li>- Personal Qualities &amp; Attributes of Fire Rescue Workers</li><li>- Communication Skills Among the Fire Rescue Team and with Victims</li><li>- Personal Health &amp; Fitness Requirements for Fire Rescue Personnel</li><li>- Introduction to Fire Rescue Careers</li><li>- Companies and Battalions</li><li>- Legal and Ethical Issues</li></ul>
2	<ul style="list-style-type: none"><li>- The Science of Fire</li><li>- Building Construction and Fire</li><li>- Fire Extinguishers</li><li>- Fire Safety and Personal Protective Equipment (PPE)</li><li>- Self-Contained Breathing Apparatus</li><li>- Fire Detection Systems/Sprinkler Systems</li></ul>
3	<ul style="list-style-type: none"><li>- Water Supplies and Fire Hydrants</li><li>- Fire Hoses and Hydrants</li><li>- Advancing Hose Lines</li><li>- Fire Streams and Foams</li><li>- CPR Training/First Aid Certification</li><li>- Survival and Search Skills</li></ul>
4	<ul style="list-style-type: none"><li>- Fire Ventilation</li><li>- Ladders</li><li>- Ropes &amp; Knots</li><li>- Forcible Building Entry</li><li>- Vehicle Fires</li><li>- Final Exam</li></ul>

**Syracuse City School District  
Career and Technical Education Program  
Scope and Sequence  
FRP100: Fire Rescue 100**



Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Week 1:</b>  <b>Personal Qualities &amp; Attributes of Fire Rescue Workers</b>	<ul style="list-style-type: none"> <li>• What personal qualities should fire rescue personnel possess?</li> <li>• What skills do you currently have?</li> <li>• What skills do you need to develop to be successful?</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and describe personal characteristics needed for fire rescue workers.</li> <li>• Self-assessment of individual qualities/profile.</li> </ul> <p>(Identification of personal qualities to be developed during the fire rescue program.)</p> <p>Integrity: Honest, Trustworthy, Reliable and Accountable. Tolerance and Respect for Diversity. Flexibility/Adapting to Change. Courage. Confidence and Resilience. Teamwork. Effective Communication/Good People Skills. Critical Thinking and Problem Solving Skills. Situational Awareness. Commitment to Excellence. Awareness of Public Image</p>	<ul style="list-style-type: none"> <li>• Student research on personal qualities.</li> <li>• Individual student assessment of personal attributes.</li> <li>• Comparison of individual personal aptitudes/ attributes with those required for fire rescue personnel.</li> <li>• Student identification of personal attributes to be developed during the program.</li> <li>• Team developed personal profiles for fire rescue workers.</li> <li>• Teacher &amp; student developed rubric to evaluate personal qualities during the program.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,7,8	<b>Literacy</b> RST.9-10.1 WHST.9-10.2,4,6,7
				<b>Cluster Standards</b> LW 1,6	<b>ELA</b> RI9-10.1,2,3,4, SL9-10.1,2,
				<b>Pathway Standards</b> LW-EFM1	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b>
<b>Week 2:</b>  <b>Communication Skills Among</b>	<ul style="list-style-type: none"> <li>• Why are communication skills critical for fire personnel?</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion of communication among the fire rescue team.</li> </ul>	<ul style="list-style-type: none"> <li>• Written summaries of communication types and rationales</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,8,9	<b>Literacy</b> RST.9-10.1 WHST.9-10.4,6,7

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>the Fire Rescue Team and with Victims</b>	<ul style="list-style-type: none"> <li>• What does it mean to be a “people person”?</li> <li>• What is nonverbal communication?</li> <li>• What is your communication style?</li> <li>• What are some barriers to effective communication?</li> <li>• What does diversity mean?</li> <li>• How do language and culture impact the way we communicate as fire rescue workers?</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding nonverbal communication – The impact of eye contact, facial expressions, personal space and body language.</li> <li>• Discussion of verbal communication styles/types.</li> <li>• Identification of barriers to effective communication.</li> <li>• Discuss of diversity and how it affects communication in emergency situations.</li> </ul>	for adjusting to selected audiences. <ul style="list-style-type: none"> <li>• Team developed verbal and nonverbal communication guidelines.</li> <li>• Poster and/or bulletin board displays.</li> <li>• Role play communication scenarios applying concepts of nonverbal and verbal guidelines.</li> </ul>	<b>Cluster Standards</b> LW 2	<b>ELA</b> RI9-10.1,2,3,4 W9-10.2,3,4,5,8 SL9-10.1,2,4,5,6 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM-1,4,9	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b>
<b>Week 3-4:</b>  <b>Personal Health &amp; Fitness Requirements for Fire Rescue Personnel</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What fitness/physical characteristics are required of fire rescue personnel?</li> <li>• What does physical fitness mean as it relates to a fire rescue worker’s ability to his/her job?</li> <li>• Am I ready to pass the fitness test?</li> <li>• What is meant by personal health?</li> <li>• What is a healthy lifestyle and how does it affect fire rescue employees, i.e., nutrition, sleep, exercise.</li> <li>• What lifestyle choices negatively affect health?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the physical demands of fire rescue workers.</li> <li>• Assess personal fitness level and determine readiness for fire rescue work.</li> <li>• Understanding of individual baseline levels for personal fitness.</li> <li>• Discuss the concept of a personal healthy lifestyle.</li> <li>• Describe proper nutrition.</li> <li>• Identify nutrition needs and food sources.</li> <li>• Exploration of healthy choices to understand how selections impact overall wellness/health.</li> <li>• Functional knowledge of decision making for developing a safe and healthy lifestyle.</li> </ul>	<ul style="list-style-type: none"> <li>• Research and written summaries of the physical demands on fire rescue workers.</li> <li>• Participation in fitness tests.</li> <li>• Documenting baseline fitness data – rubric evaluated.</li> <li>• Student journaling on food intake and physical activity for a two week period.</li> <li>• Review and analysis of journal information,</li> </ul>	<b>Career Ready Practice</b> CRP1,2,3,4,7,11	<b>Literacy</b> RST.9-10.1 WHST.9-10.2,4,6,7
				<b>Cluster Standards</b> LW 1,3	<b>ELA</b> RI9-10.1,2,3,4,5 W9-10.2,7 SL9-10.1,4 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM-1,4	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> HS-LS1-2 LE-S4-K5 S2.K1 S6.K5 HS-LS1-3.

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
		<ul style="list-style-type: none"> <li>Recognition of harmful choices related to nutrition, sleep, drug and alcohol use.</li> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>			
<p><b>Week 5-6:</b></p> <p><b>Introduction to Fire Rescue Careers</b></p> <p><b>Physical Training (PT)</b></p>	<ul style="list-style-type: none"> <li>What career opportunities are available to fire rescue workers?</li> <li>What is the role of firefighters?</li> <li>What are the training/ education/certifications required for each?</li> <li>What are the differences between firefighter and forest fire fighters?</li> <li>What are emergency dispatchers, and how do they work with fire rescue workers?</li> <li>What is a fire prevention inspector?</li> <li>Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>Distinguish job titles with corresponding roles, responsibilities, educational requirements and wages.</li> <li>Describe the function of dispatchers and how they interact with the fire rescue team.</li> <li>Understanding of the role of fire prevention inspectors and discuss the reasons they are required.</li> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>Electronic research including education, training, certifications and wage information.</li> <li>Group presentations on selected pathways.</li> <li>Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,4,7,11</p> <p><b>Cluster Standards</b> LW 1,9,10</p> <p><b>Pathway Standards</b> LW-EFM</p> <p><b>Industry Standards</b></p>	<p><b>Literacy</b> RST.9-10.1,2,3,4,5 WHST.9-10.2,7,8,9</p> <p><b>ELA</b> RI9-10.1,2,3,4,5 SL9-10.1,2,4,5,6</p> <p><b>Math</b></p> <p><b>Science</b> S2.K1 S6.K5 HS-LS1-3.</p>
<p><b>Week 7:</b></p> <p><b>Companies and Battalions</b></p>	<ul style="list-style-type: none"> <li>What are the different types of companies found in a fire department?</li> <li>What are their roles and responsibilities?</li> <li>What is meant by the chain of command and how is it applied in companies and battalions?</li> </ul>	<ul style="list-style-type: none"> <li>Examine the way a fire department is divided into the various companies.</li> <li>Analyze each of their tasks when on an emergency response.</li> <li>Discuss the methods in which they interact and work independently during a fire rescue event.</li> </ul>	<ul style="list-style-type: none"> <li>Written assignment on companies and battalions and the chain of command within each.</li> <li>Quiz on roles of the three companies.</li> <li>Vocabulary quiz.</li> <li>Participation in weekly drill and</li> </ul>	<p><b>Career Ready Practice</b> CRP 1,4,9,12</p> <p><b>Cluster Standards</b> LW4</p> <p><b>Pathway Standards</b> LW-EFM 1,4,6,7</p>	<p><b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4</p> <p><b>ELA</b> RI9-10.1,2,3,4,8 W9-10.2,4,5,6,8 L9-10.1-6</p> <p><b>Math</b></p>

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>Distinguish the reasons for each company to have its specialized tasks.</li> <li>Discuss the meaning of chain of command and the ways it impacts communication in companies and battalions.</li> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	physical fitness training. Increase from baseline achievement.	<b>Industry Standards</b>	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.
<b>Weeks 8-9: Legal and Ethical Issues</b>	<ul style="list-style-type: none"> <li>What are the most important personal safety considerations for fire rescue personnel?</li> <li>How do legal issues impact fire rescue personnel?</li> <li>What does data collection and record keeping look like in fire rescue situations?</li> <li>What are the protocols required in data collection and recording?</li> <li>What guidelines should fire rescue personnel follow to protect themselves from legal action?</li> <li>How do HIPAA, Patients' Rights and ADA impact the Fire Rescue career field?</li> <li>What is the impact of the Good Samaritan Act on fire rescue personnel?</li> <li>What does the term "ethics" mean?</li> </ul>	<ul style="list-style-type: none"> <li>Understand personal and crew safety on the job.</li> <li>Explain safety and the role of Fire Rescue personnel.</li> <li>Explain current legal and ethical issues relevant to Fire Rescue personnel,</li> <li>Understand the responsibilities of record keeping and data collection in Fire Rescue.</li> <li>Analyze HIPAA regulations, Patients' Rights, and the American with Disabilities Act and their relevance to the Fire Rescue position.</li> <li>Predict how ethical decisions impact Fire Rescue personnel.</li> <li>Examine the Good Samaritan Act and how it affects the Fire Rescue personnel in providing medical services.</li> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>Team presentation on part of the Fire Rescue Requirements. Rubric based evaluation</li> <li>Written assignment on HIPAA Case Violation</li> <li>Summary of Patients' Right Documents what they protect.</li> <li>Summary of research on current legal issues in the Fire Rescue field.</li> <li>Written statement of ethical behavior.</li> <li>Quiz on Good Samaritan Act.</li> <li>Article summary of Fire Rescue legal issues</li> <li>Research case where Fire Rescue personnel have been challenged under the Good</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,4,8,9,12</p> <hr/> <p><b>Cluster Standards</b> LW4</p> <hr/> <p><b>Pathway Standards</b> LW-EFM4</p> <hr/> <p><b>Industry Standards</b></p>	<p><b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,7,8,9</p> <hr/> <p><b>ELA</b> RI9-10.1-8 W9-10.2,4-9 SL9-10.1-5 L9-10.1-6</p> <hr/> <p><b>Math</b></p> <hr/> <p><b>Science</b> SI1.K3 S2.K1 S6.K5 HS-LS1-3.</p>

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How/why should ethics always be a consideration for fire rescue personnel?</li> <li>• What is an ethical decision?</li> <li>• Are you physically and mentally fit?</li> </ul>		Samaritan Act. <ul style="list-style-type: none"> <li>• Ten Week Assessment.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>		
<b>Weeks 10-13: The Science of Fire</b>           <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What environmental changes impact the behavior of a fire?</li> <li>• What are the different types of fires?</li> <li>• Why is it important for fire fighters to know and understand their characteristics of fire types?</li> <li>• What is important to know about how a fire progresses and is controlled?</li> <li>• What do firefighters need to know and be able to do to stay safe during the types of fire?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the basic components needed for fire.</li> <li>• Examine the various types of fires and how each reacts to a given environment.</li> <li>• Analyze the different methods of controlling a fire.</li> <li>• Discuss the conditions and external variables that affect a fire's development and control.</li> <li>• Identify safety precautions necessary in each type of fire</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Written summary on how to manage a types of fire and the techniques necessary for gaining control.</li> <li>• Student developed questions for guest speaker. Guest speaker</li> <li>• Written reaction papers to guest speaker.</li> <li>• Quiz on characteristics of fires and way to predict their reactions.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,5,6,12	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.11-6 W9-10.2,4-6,9,10 SL9-10.1-3 L9-10.1-6
				<b>Pathway Standards</b> LW-EFM5	<b>Math</b>
<b>Industry Standards</b>	<b>Science</b> S6.K2 HS-PS3.1 S2.K1 S6.K5 HS-LS1-3.				
<b>Week 14: Building Construction and Fire</b>	<ul style="list-style-type: none"> <li>• How do different construction types effect fire growth?</li> <li>• What considerations do fire rescue personnel need to understand to</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the different types of building construction</li> <li>• Examine the impact of construction on fire growth</li> <li>• Describe the ways building construction changes the</li> </ul>	<ul style="list-style-type: none"> <li>• Scavenger hunt of building types around Syracuse with pictures and descriptions of buildings.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,3,4,5,9,12	<b>Literacy</b> RST.9-10.1, 2, 4 WHST.9-10.2, 4  <b>ELA</b> RI9-10.1-3,7,8 W9-10.1,4-6,7 SL9-10.1

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Physical Training (PT)</b>	<p>work safely and effectively in specific structures?</p> <ul style="list-style-type: none"> <li>• Are you physically and mentally fit?</li> </ul>	<p>way a firefighter an attack may be made on a fire?</p> <ul style="list-style-type: none"> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Written analyses on building construction, firefighter awareness and correct approaches to selected construction types.</li> <li>• Apply regulations &amp; protocols for personal and team safety.</li> </ul>	<p><b>Cluster Standards</b> LW1</p> <p><b>Pathway Standards</b> LW-EFM5,10,15</p> <p><b>Industry Standards</b></p>	<p>L9-10.1-6</p> <p><b>Math</b></p> <p><b>Science</b> S6.K2 S11.K2 S2.K1 S6.K5 HS-LS1-3.</p>
<b>Week 15: Fire Extinguishers</b>	<ul style="list-style-type: none"> <li>• What are the various types of portable fire extinguishers?</li> <li>• Why does each one have a different use?</li> <li>• What is the life of a fire extinguisher and how is it determined?</li> <li>• What happens to a fire extinguisher after being used on a fire?</li> <li>• What are the rules for fire extinguisher safety?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Working knowledge of fire types.</li> <li>• Identification of each type of fire extinguisher.</li> <li>• Discuss where each type of extinguisher would be used.</li> <li>• Demonstrate the proper care and operation of fire extinguishers.</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Practical exam on identifying the various types of extinguishers.</li> <li>• Group developed tri-folds on types and proper use of fire extinguishers.</li> <li>• Design a fire extinguisher inspection program.</li> <li>• Assessment of student critical thinking and decision making-rubric evaluates.</li> <li>• Quiz on types, care and use of fire extinguishers</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,4,8,11</p> <p><b>Cluster Standards</b> LW1</p> <p><b>Pathway Standards</b> LW-EFM5,9,10</p> <p><b>Industry Standards</b></p>	<p><b>Literacy</b> RST.9-10.1,2,4,7 WHST.9-10.2,4</p> <p><b>ELA</b> RI9-10.1-3,8 W9-10.2,4-7,10 SL9-10.1-6 L9-10.1-6</p> <p><b>Math</b></p> <p><b>Science</b> PSS4.K3 S2.K1 S6.K5 HS-LS1-3.</p>
<b>Weeks 16-18: Fire Safety and</b>	<ul style="list-style-type: none"> <li>• What are the safety issues that Fire Rescue</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the safety issues affecting firefighters.</li> </ul>	<ul style="list-style-type: none"> <li>• Written assignment on current safety</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,3,5,7,12</p>	<p><b>Literacy</b> RST.9-10.1, 2, 4, 7</p>

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Personal Protective Equipment (PPE)</b>	<p>personnel face while on the job?</p> <ul style="list-style-type: none"> <li>What are the roles of the department, the team, and the individual in firefighter safety?</li> <li>What types of personal protective equipment (PPE) are necessary?</li> <li>What equipment is used by fire rescue workers for personal and/or team safety?</li> <li>What skills are necessary to correctly operate the equipment?</li> <li>What vocabulary does a fire rescue worker need to use in fire safety and PPE?</li> <li>Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>Explain the different responsibilities for safety of the department, the team, and the individual.</li> <li>Discuss the importance of personal and team decision making related to safety in the work environment.</li> <li>Identify the components of Personal Protective Equipment for fire rescue and demonstrate how each one protects the fire rescue worker.</li> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<p>issues for fire fighters and determining the responsible parties.</p> <ul style="list-style-type: none"> <li>Group presentations on Personnel Protective Equipment.</li> <li>Flow chart of skills a fire rescue person must have in using PPE.</li> <li>Correct donning and removal of PPE in specified situations.</li> <li>Rank in order the most frequently to the least used equipment in the job of fire rescue personnel.</li> <li>Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Cluster Standards</b> LW1	<b>WHST.9-10. 2, 4</b>
				<b>Pathway Standards</b> LW-EFM5,10,13	<b>ELA</b> RI9-10.1-4,8 W9-10.2,4-6,9 SL9-10.1-5 L9-10.1-6
				<b>Industry Standards</b>	<b>Math</b>
<b>Physical Training (PT)</b>					<b>Science</b> SIS1.K3 S6.K2 S2.K1 S6.K5 HS-LS1-3.
<b>Weeks 19: Self-Contained Breathing Apparatus</b>	<ul style="list-style-type: none"> <li>How does the self-contained breathing apparatus function?</li> <li>Under what conditions will Fire Rescue personnel use a self-contained breathing apparatus?</li> <li>What training/skills are needed for correct operation of self-contained breathing</li> </ul>	<ul style="list-style-type: none"> <li>Explain how self-contained breathing apparatus technology has developed and changed over time.</li> <li>Knowledge and skills in analyzing a fire rescue event to determine that a self-contained breathing apparatus should be used.</li> <li>Demonstration of the operation of maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Group presentation on self-contained breathing apparatus.</li> <li>Quiz on the care and use of the breathing apparatus.</li> <li>Participation in weekly drill and physical fitness training. Increase from baseline</li> </ul>	<b>Career Ready Practice</b> CRP1,2,3,7,11,12	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-4,8 W9-10.2 SL9-10.1-5 L9-10.1,2,6
				<b>Pathway Standards</b> LW-EFM1,5,10	<b>Math</b>



Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Physical Training (PT)</b>	apparatus? <ul style="list-style-type: none"> <li>How will you be able to determine whether or not a self-contained breathing apparatus is indicated?</li> <li>Are you physically and mentally fit?</li> </ul>	of a self-contained breathing apparatus. <ul style="list-style-type: none"> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	achievement.	<b>Industry Standards</b>	<b>Science</b> S11.K2 S2.K1 S6.K5 HS-LS1-3.
<b>Weeks 20</b>  <b>Fire Detection Systems / Sprinkler Systems</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>What are the various types of fire detection systems?</li> <li>What are the various types of sprinkler systems?</li> <li>Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>Explain the difference between smoke, CO, heat, gas, and flame detectors</li> <li>Explain the difference between wet, dry, deluge, pre-action and residential sprinkler systems</li> <li>Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>Graded homework assignment on use and placement of smoke detectors</li> <li>Quiz on Fire Detections and Sprinkler Systems</li> <li>Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,9,12	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1,6	<b>ELA</b> RI9-10.1-4 W9-10.2,10 SL9-10.1,2 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM5,10,13	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> EDS1.K1 S2.K1 S6.K5 HS-LS1-3.
<b>Week 21:</b>  <b>Water Supplies and Fire Hydrants</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>What are the various sources of water supply used by a Fire Rescue Team?</li> <li>What are the different types of fire hydrants used in our county/city?</li> <li>What are the safety concerns when accessing a fire hydrant?</li> <li>Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>Explain the types of water supplies used to fight fires.</li> <li>Define how they are accessed by the fire rescue personnel.</li> <li>Understand the various types of hydrants used by our county/city and their locations and placement.</li> <li>Demonstrate how to safely access water from a hydrant.</li> <li>Improve fitness levels and work as a member of a</li> </ul>	<ul style="list-style-type: none"> <li>Written assignment describing various water supplies.</li> <li>Identification of the various types of hydrants and the tools needed to access water from a hydrant.</li> <li>Practical application in accessing water from fire hydrants.</li> <li>Community service exercise of</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,9,12	<b>Literacy</b> RST.9-10.1,2,4,7 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-4 W9-10.2,4-7,9 SL9-10.1,2 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM5,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> EDS1.K1

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
		cohesive unit/team	shoveling out fire hydrants. • Participation in weekly drill and physical fitness training. Increase from baseline achievement.		S2.K1 S6.K5 HS-LS1-3.
<b>Weeks 22:</b>  <b>Fire Hoses and Hydrants</b>          <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What types of fire hose are used by the County and City Fire Departments?</li> <li>• How do firefighters determine what type of fire hose should be used?</li> <li>• What does hose load mean?</li> <li>• What are the various hose loads and hose rolls?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why each type of hose has its own specific use when fighting a fire.</li> <li>• Calculate the hose loads capable at standard water pressure for various hoses.</li> <li>• Explain why different hose loads are used for different operations.</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Quiz on visual recognition of types of fire hose.</li> <li>• Written assessment on how to identify the various types of hose loads and their advantages and disadvantages.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,7,8,11  <b>Cluster Standards</b> LW 1  <b>Pathway Standards</b> LW-EFM 5, 10  <b>Industry Standards</b>	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4  <b>ELA</b> RI9-10.1-4,8 W9-10.2,4-6,9 SL9-10.1-3 L9-10.1,2,4,6  <b>Math</b>   <b>Science</b> MA.S1.K1 S2.K1 S6.K5 HS-LS1-3.
<b>Weeks 23-24:</b>  <b>Advancing Hose Lines</b>          <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How are hose lines advanced in a structure?</li> <li>• What are the skills and physical requirements needed to go up and down stairs, using a standpipe, and working off of a ladder?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how to advance a fire hose in multiple operations.</li> <li>• Demonstrate the procedure for advancing a fire hose up and down stairs.</li> <li>• Explain the use of a stand pipe and how safely to work from a ladder with a fire hose</li> <li>• Improve fitness levels and work as a member of a</li> </ul>	<ul style="list-style-type: none"> <li>• Hands-on practical team exercise advancing hoses up and down stairs with full equipment</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,8,12  <b>Cluster Standards</b> LW1  <b>Pathway Standards</b> LW-EFM2,5,6,9,10  <b>Industry Standards</b>	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4  <b>ELA</b> RI9-10.1-4 SL9-10.1,2,4  <b>Math</b>   <b>Science</b> PS.S2.K1

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
		cohesive unit/team			PS.S6.K5 HS-LS1-3.
<b>Week 25:</b>  <b>Fire Streams and Foams</b>         <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What is a fire stream?</li> <li>• What is the difference between small, medium and master stream devices?</li> <li>• How does a Firefighter determine what master stream should be used when fighting a fire?</li> <li>• What types of fires require the use of foam?</li> <li>• Why would a Firefighter use foam versus water?</li> <li>• What are the different types of foam?</li> <li>• What are the factors in selecting the right foam?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Define the various types of fire streams and their effectiveness.</li> <li>• Demonstrate the various types of fire streams.</li> <li>• Understand when and how to choose which hose stream.</li> <li>• Explain the reason why foam is used in fire service.</li> <li>• Understand where each type of foam is used and why.</li> <li>• Discuss the chemical makeup of the foams and how they extinguish a fire.</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Written summary on various types of hose streams.</li> <li>• Responses to scenarios on selecting the appropriate fire stream and the rationale its use.</li> <li>• Hands-on exercise using various types of hose streams.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,6,9,12	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Cluster Standards</b> LW 2	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Pathway Standards</b> LW-EFM 1, 9, 10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S11.K2 S11.K3 PS.S2.K1 PS.S6.K5 HS-LS1-3.
<b>Week 26-27:</b>  <b>CPR Training/ First Aid Certification</b>         <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• Why is it important for Fire Rescue personnel to train in cardiopulmonary resuscitation (CPR)?</li> <li>• What key vocabulary applies to CPR performance?</li> <li>• What anatomy and physiology apply to the performance of CPR?</li> <li>• What technical terms are used in CPR?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the A &amp; P involved in CPR.</li> <li>• Application of technical terms in CPR training.</li> <li>• Correctly perform CPR.</li> <li>• Correctly perform First Aid</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Successful completion of practical and written exams for CPR/ First Aid certification.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,9,10	<b>Literacy</b> RST.9-10.1,2,4,7 WHST.9-10.2,4
				<b>Cluster Standards</b> LW 1 6	<b>ELA</b> RI9-10.1-4 W9-10.2,10 SL9-10.1,2 W9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM1,2,4,5,9,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> LE.S4.K5 PS.S2.K1 PS.S6.K5 HS-LS1-3.

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Week 28-29:</b>  <b>Survival and Search Skills</b>   <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How does a firefighter search a zero/limited visibility environment?</li> <li>• How can a firefighter remove himself/herself from a dangerous situation?</li> <li>• How are search and survivals documented?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Understand search techniques for victims and how they differ from a RIT search.</li> <li>• Demonstrate survival skills and rapid egress skills.</li> <li>• Knowledge of incident reports</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Skills-based practice in limited visibility situations.</li> <li>• Skill-based practice in demonstrating rapid egress.</li> <li>• Accurately complete Incident reports.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,6,7,8,12	<b>Literacy</b> RST.9-10.1,2,3,5
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-3,6,8 W9-10.2,4-6,10 SL9-10.1,24 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM1,2,5,9,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.
<b>Week 30-31:</b>  <b>Fire Ventilation</b>   <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What methods and types of ventilation are used when fighting a fire?</li> <li>• What types of fire suppression are used in controlling a fire?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why ventilation helps in fire suppression</li> <li>• Discuss the correct method of ventilation</li> <li>• Define the difference of between natural and mechanical ventilation</li> <li>• Explain the differences in extinguishing each type of fire</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Teams problem-solving questions on deciding proper procedures for proper ventilation and fire suppression</li> <li>• Skills practical on roof prop</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,4,5,8	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-4,8 W9-10.2 SL9-10.1,2,4 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM2,5,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S11.K3 S6.K2 S2.K1 S6.K5 HS-LS1-3.
<b>Week 32-33:</b>  <b>Ladders</b>	<ul style="list-style-type: none"> <li>• How do Fire Rescue personnel decide which ladders to use?</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the parts of ladders and explain their construction</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration of safe ladder practice-rubric evaluated.</li> </ul>	<b>Career Ready Practice</b> CRP1,4,8	<b>Literacy</b> RST.9-10.1,2,4,7 WHST.9-10.2,4

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What safety practices are used when working with a ladder?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the selection and proper use of ladders in a rescue</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of types of ladders.</li> <li>• Labeled diagrams of ladder components on multiple types of ladders.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-6 W9-10.2,6 SL9-10.1,2,4 L9-10.1,2,4,5,6
				<b>Pathway Standards</b> LW-EFM2,5,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.
<b>Week 34:</b>  <b>Physical Training (PT)</b>  <b>Ropes &amp; Knots</b>	<ul style="list-style-type: none"> <li>• What types of ropes and knots are used in the fire service?</li> <li>• How are they used in fire rescue situations?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the various rope construction methods and their characteristics</li> <li>• Identify the knots used and provided scenarios on when the specific knot is used</li> <li>• Define the impact on rope and knot safety on firefighting</li> <li>• Explain situations where forcible building entry is used and the tools used to perform a forcible entry</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration of tying specific knots required of the profession</li> <li>• Quiz on rope and knot identification</li> <li>• Identification of pictures of various forcible building entry tools and written summary of how and why each would be used</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP 1, 2, 4, 8, 11	<b>Literacy</b> RST.9-10.1,2,4,7 WHST.9-10.2,4  <b>ELA</b> RI9-10.1-4 W9-10.2,10 SL9-10.1,4 L9-10.1,2,4,6
<b>Cluster Standards</b> LW1	<b>Math</b>				
<b>Pathway Standards</b> LW-EFM5,10	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.				
<b>Industry Standards</b>					
<b>Weeks 35 &amp; 36:</b>  <b>Forcible Building Entry</b>	<ul style="list-style-type: none"> <li>• What is forcible entry?</li> <li>• How do fire rescue workers correctly perform a forced entry?</li> <li>• How do you determine when a forced entry is necessary?</li> </ul>	<ul style="list-style-type: none"> <li>• Define primary and secondary rescue search/</li> <li>• Apply critical thinking and decision making to determine the need for forced entry.</li> <li>• Understand the concept of “try it before you pry it”.</li> </ul>	<ul style="list-style-type: none"> <li>• Skills based practice-rubric evaluated.</li> <li>• Identification of tools and equipment in forced entry</li> <li>• Participation in weekly drill and</li> </ul>	<b>Career Ready Practice</b> CRP1,4,6,8,9,12	<b>Literacy</b> RST.9-10.1,2,4,7 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-4,6,8 SL9-10.1,2,4
				<b>Pathway Standards</b>	<b>Math</b>

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What tools and equipment are needed in forced entries?</li> <li>• What is a primary and secondary rescue search?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate “through the lock” methods.</li> <li>• Perform a forced entry simulations</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	physical fitness training. Increase from baseline achievement.	LW-EFM2,5,10	
				<b>Industry Standards</b>	<b>Science</b> ED.S1.K1 S2.K1 S6.K5 HS-LS1-3.
<b>Weeks 37-38: Vehicle Fires  Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How do vehicle fires start?</li> <li>• How are vehicle fires extinguished?</li> <li>• What safety considerations are needed for fire rescue workers with vehicle fires?</li> <li>• What are the rescue procedures for extricating victims from a burning vehicle?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the protocols for examining the scene for safety at the vehicle fire.</li> <li>• Apply the concepts of fire science to vehicle fire scenarios.</li> <li>• Determine the appropriate method to safely extinguish a vehicle fire.</li> <li>• Know extrication procedures for vehicle fires</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Case study reviews and corresponding written reports.</li> <li>• Skills testing.</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,7	<b>Literacy</b> RST.9-10.1,2,4 WHST.9-10.2,4
				<b>Cluster Standards</b> LW1	<b>ELA</b> RI9-10.1-5,8 W9-10.2,4-6,10 SL9-10.1,4 L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM2,5,910	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> RI9-10.1-5,8 W9-10.2,4-6,10 SL9-10.1,4 L9-10.1,2,4,6
<b>Week 39-40 Final Exam  Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• Final Review</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation for Final Exams</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Final Exam – Written</li> <li>• Skill based final exam- teamed with EMT and Law Enforcement; scenario based</li> <li>• Participation in weekly drill and physical fitness training. Increase from baseline achievement.</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,6,7,8,9,11,12	<b>Literacy</b>
				<b>Cluster Standards</b> LW1,2,3,4,6	<b>ELA</b> RI9-10.1-6,8 W9-10.2,4-6,10 SL9-10.1-4,6, L9-10.1,2,4,6
				<b>Pathway Standards</b> LW-EFM1,2,5,6,9,10,11,14	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S2.K1

<b>Time Frame Unit of Study</b>	<b>Key Questions</b>	<b>Key Learning Targets (Students will know and be able to)</b>	<b>Assessment Evidence of Learning</b>	<b>Related Standards</b>	<b>CCLS Literacy, Math, Science</b>
					S6.K5 HS-LS1-3.

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**Syracuse City School District  
Career and Technical Education  
Course Syllabus  
FRP200: Fire Rescue 200**



**Program Overview**

The Fire Rescue program at PSLA is designed to provide students with experience in the field of firefighting and to prepare them for the fire academy. Throughout the program, a wide-range of topics will be covered ranging from fire safety and awareness, fire suppression, firefighter survival skills to planning for a city wide disaster. Students will become certified in CPR and First Aid, receive FEMA certifications and CFR Emergency Medical Responder certification. The program offers job shadow and internship experiences, the opportunity to earn college credits from OCC and credit for the completion of New York State Firefighter courses. Those successfully completing the program will earn a Regents diploma and pass an industry-based assessment to receive a technical endorsement on their diploma. Career opportunities include Firefighter, Fire Protection Professional, Industrial Fire Safety Professional and Fire Investigator.

**Course Description**

During this course, students become aware of the immense amount of science incorporated in the Fire-Rescue Field. Students continue to develop critical skills in fire protection and learn about the chemistry of fire, fire suppression agents, chemical properties that create HazMat situations, indicators of chemical warfare agents and synthetic drug labs. The course combines classroom and hands-on application of firefighter skills.

**Course Objectives**

Students will:

1. Gain knowledge in basic firefighting tactics and procedures.
2. Be knowledgeable in fire safety and personal protective equipment (PPE).
3. Gain proficiencies in victim removal and transport.
4. Understand Incident Command Systems (ICS).
5. Develop skills in emergency radio communications.
6. Be familiar with the chemistry of hazardous materials.
7. Learn basic knowledge of fire chemistry, pyrolysis, and chemical warfare.
8. Understand the procedures of fire investigations.

**Integrated Academics**

N/A

**Equipment and Supplies**

TBD

**Textbook**

Fire, Frank. The Common Sense Approach to Hazardous Materials, 2nd edition/  
Sadlebrook: Fire Engineering Books & Videos, 1996



## Grading

20%	Tests	15%	Quizzes
15%	Classwork	10%	Homework
20%	PT Lab Grade	20%	Participation

## Additional Course Policies

Students must receive a standard sports physical for entry into this course.

Students are required to follow all classroom and lab safety rules. Students must participate in weekly Physical Training Drills.

## Course Calendar

Quarter	Units of Study
1	<ul style="list-style-type: none"><li>• Review of equipment, expectations and vocab</li><li>• Team Building Activities</li><li>• Review of Fire fighter survival skills</li><li>• PPE</li><li>• Victim transport/removal</li></ul>
2	<ul style="list-style-type: none"><li>• Building construction/effects of fire Radio communications/primary size-up</li><li>• ICS 100 and 700 Chemistry of Hazardous Materials</li><li>• Elements of Hazardous Materials</li><li>• Chemical Compounds</li></ul>
3	<ul style="list-style-type: none"><li>• Fire Dynamics and Pyrolysis Effects of Heat Transfer on Fires</li><li>• Fire Investigation, Evidence Collection &amp; Scene Preservation Arson and Incendiary Devices</li><li>• Psychology of an Arsonist</li></ul>
4	<ul style="list-style-type: none"><li>• Arson Investigations</li><li>• Laws, Sentencing and Expert Testimony</li><li>• Chemical Warfare Agents</li><li>• Review and Final Exam</li></ul>

**Syracuse City School District  
Career and Technical Education Program  
Scope and Sequence  
FRP 200: Fire Rescue Level 200**



Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
<b>Week 1</b>  <b>Review of Class Expectations</b>  <b>Vocabulary</b>  <b>Classroom Equipment Overview</b>	<ul style="list-style-type: none"> <li>• What are the classroom expectations, and how can you be a leader in the class?</li> <li>• What key vocabulary do you need to communicate and perform in the class?</li> <li>• What are the names and uses of classroom/lab equipment?</li> </ul>	<ul style="list-style-type: none"> <li>• Describe classroom expectations and refresh on para-military expectations</li> <li>• Identify and describe the uses of classroom equipment</li> <li>• Demonstrate the safe and proper use/handling of equipment in the Fire Rescue classroom</li> </ul>	<ul style="list-style-type: none"> <li>• Signed student expectations contracts</li> <li>• Student demonstration of appropriate attitudes and interactions</li> <li>• Skills based test on equipment use/handling</li> </ul>	<b>Career Ready Practice</b> CRP1,4,9	<b>Literacy</b> RST.11-12.4
				<b>Cluster Standards</b> LW2	<b>ELA</b> RI-11-12.1-4 SL11-12.1,4
				<b>Pathway Standards</b> LW-EFM4,5,6,10	<b>Math</b>  <b>Science</b> S1.K3
				<b>Industry Standards</b>	
<b>Week 2</b>  <b>Team Building Activities</b>	<ul style="list-style-type: none"> <li>• What is the purpose of working together as a team?</li> <li>• Why do Firefighters never work alone?</li> </ul>	<ul style="list-style-type: none"> <li>• Firefighter Assist and Search Team (FAST)</li> <li>• Understand 2 in-2 out rule and its application</li> <li>• Determine how various “Line of Duty Deaths” (LODD) and injuries could be prevented with better teamwork</li> </ul>	<ul style="list-style-type: none"> <li>• Case studies on “freelancing” incidents and LODD</li> <li>• Written report on the importance of firefighter teamwork</li> </ul>	<b>Career Ready Practice</b> CRP1,4,6,9	<b>Literacy</b> RST.11-12.3 WHST.11-12.2
				<b>Cluster Standards</b> LW4	<b>ELA</b> RI11-12.1-6 W11-12.1,4-9 SL11-12.1,2 L11-12.1,2,4-6
				<b>Pathway Standards</b> LW-EFM1,4,5,6,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b>
<b>Week 3-4</b>  <b>Review of Firefighter</b>	<ul style="list-style-type: none"> <li>• How do fire rescue workers recognize a hazardous situation and how can they remove</li> </ul>	<ul style="list-style-type: none"> <li>• Understand search techniques for victims and how they differ from a “Rapid Intervention Team”</li> </ul>	<ul style="list-style-type: none"> <li>• Skills based practice/assessment</li> <li>• Written summary of</li> </ul>	<b>Career Ready Practice</b> CRP4,6	<b>Literacy</b> RST.11-12.1,3 WHST.11-12.6

<b>Survival Skills</b>	<p>themselves from the dangerous situation?</p> <ul style="list-style-type: none"> <li>• What do fire rescue workers need to consider when entering a dangerous situation?</li> <li>• What questions should the fire rescue team be asking prior to entering a dangerous situation?</li> <li>• How do fire rescue workers document events?</li> </ul>	<p>(RIT) search</p> <ul style="list-style-type: none"> <li>• Demonstrate rapid egress and survival skills</li> <li>• Compare/contrast “Risk v. Benefit” in fire rescue</li> <li>• Accurately document fire rescue events</li> </ul>	<p>risk v. benefits at an emergency event</p> <ul style="list-style-type: none"> <li>• Proper completion of Incident reports</li> </ul>	<p><b>Cluster Standards</b> LW1</p>	<p><b>ELA</b> RI11-12.1-6 W11-12.1,4-6,9,10 SL11-12.1,2,4,5 L11-12.1-6</p>
				<p><b>Pathway Standards</b> LW-EFM2,3,5,6, 10</p>	<p><b>Math</b></p>
				<p><b>Industry Standards</b></p>	<p><b>Science</b> S1.K2 S6.K2 S7.K1</p>
<b>Week 5</b>  <b>Personal Protective Equipment (PPE)</b>	<ul style="list-style-type: none"> <li>• What types of personal protective equipment (PPE) are necessary for fire rescue workers?</li> <li>• How is PPE constructed and tested?</li> <li>• How do you determine the appropriate PPE for different circumstances?</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the components of Personal Protective Equipment for Fire Rescue</li> <li>• Demonstrate how each type protects the fire fighter</li> <li>• Examine emergency situations and identify potential risks of using incorrect PPE</li> </ul>	<ul style="list-style-type: none"> <li>• Group flow charts of the skills a fire rescue person must have in using PPE</li> <li>• Rank in order the most to least used equipment in the job of Fire Rescue</li> <li>• PPE lab practical</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,4,9,11,12</p>	<p><b>Literacy</b> RST.11-12. 3,5 WHST.11-12.2,4,6 SL.11-12.1a,b</p>
				<p><b>Cluster Standards</b> LW2</p>	<p><b>ELA</b> RI11-12.1-4,7,8 W11-12.2,4-6 SL11-12.1,4 L11-12.2,6</p>
				<p><b>Pathway Standards</b> LW-EFM3,4,5,10</p>	<p><b>Math</b></p>
				<p><b>Industry Standards</b></p>	<p><b>Science</b> S1.K3 S2.K1 S6.K2</p>
<b>Week 6</b>  <b>Victim Transport &amp; Removal</b>  <b>Physical</b>	<ul style="list-style-type: none"> <li>• What methods of victim removal are used in an emergency situation, and how do fire rescue workers determine the correct method?</li> <li>• Are you physically and mentally fit to become a fire rescue worker?</li> <li>• Why are these qualities important?</li> </ul>	<ul style="list-style-type: none"> <li>• Understand and apply the concepts of victim removal to determine the correct method of moving/ removing patients from unsafe situations</li> <li>• Discuss the importance of physical and mental fitness in fire rescue</li> <li>• Determine baseline fitness levels and set improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Practical assessment on victim movement, removal and transport</li> <li>• Research on physical and mental requirements for fire rescue workers</li> <li>• Participation in weekly drill and</li> </ul>	<p><b>Career Ready Practice</b> CRP1,3,4,6,8,9, 12</p>	<p><b>Literacy</b> RST.11-12.1,4, WHST.11-12.2d, 4,6,7 SL.11-12.1a,d,5</p>
				<p><b>Cluster Standards</b> LW1,2,3,6</p>	<p><b>ELA</b> RI11-12.1-4,6,8 W11-12.2,7,9 SL11-12.1,2,4 L11-12.1,2,4,6</p>

<b>Training (PT)</b>	<ul style="list-style-type: none"> <li>• What does mentally fit mean as a fire rescue worker?</li> </ul>	goals	physical fitness training. Increase from baseline achievement		
				<b>Pathway Standards</b> LW-EFM1,2,3,5, 9,10	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.
<b>Week 7</b>  <b>Building and Construction Effects of Fire</b>          <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How do different construction types effect fire growth?</li> <li>• Why are certain construction types more dangerous than others for firefighters?</li> <li>• How does building construction change the way an attack may be made on a fire?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the different types of building construction</li> <li>• Examine the impact of construction on fire growth</li> <li>• Discussion of research on physical and mental fitness</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Scavenger hunt of building types around Syracuse including pictures and description of buildings</li> <li>• Written analyses on building construction and firefighter awareness</li> <li>• Role plays with scenarios applying the elements of mental fitness</li> <li>• Participation in weekly physical fitness</li> </ul>	<b>Career Ready Practice</b> CRP3,4,6,8,12	<b>Literacy</b> RST.11-12.1,4 WHST.11-12.2a, b,d SL.11-12.1a,d
				<b>Cluster Standards</b> LW1,2,3,6,12	<b>ELA</b> RI11-12.1-6,8 W11-12.1,3,4-9 SL11-12.1-4,6 L11-12.1-6
				<b>Pathway Standards</b> LW-EFM3,5,10,15	<b>Math</b>
				<b>Industry Standards</b>	<b>Science</b> S1.K2 S2.K1 S6.K2 HS-LS1-3.
<b>Week 8</b>  <b>Radio Communication s/Primary Size-Up</b>          <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What is the proper method for radio communication and when should radios be used?</li> <li>• What information is important to convey to incoming fire companies?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Understand key terms and acronyms used in radio communication</li> <li>• Determine when radios should be used and when they should not be used</li> <li>• Relay information on the fire scene over the radio</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Guest speaker or field trip?</li> <li>• Quiz on radio use and protocols</li> <li>• Practical assessment on calling a mayday and giving a size-up</li> <li>• Effective communication and modeling mental</li> </ul>	<b>Career Ready Practice</b> CRP3,4,6,9,12	<b>Literacy</b> RST.11-12.1,2 SL.11-12.1a,b,d
				<b>ELA</b> RI11-12.1-4,8 W11-12.2,10 SL11-12.1-4,6 L11-12.1,2,6	

		<ul style="list-style-type: none"> <li>• Application of basic communication skills demonstrating the concepts of mental fitness for fire rescue workers.</li> </ul>	<p>health, judgment and decision making for fire rescue</p> <ul style="list-style-type: none"> <li>• Participate in weekly fitness drills</li> </ul>	<p><b>Cluster Standards</b> LW1,2,3</p>	<p><b>Math</b></p>
				<p><b>Pathway Standards</b> LW-EFM1,2,5,9,10, 11</p>	<p><b>Science</b> S2.K1 S6.K5 HS-LS1-3.</p>
				<p><b>Industry Standards</b></p>	
<p><b>Weeks 9-13</b></p> <p><b>Incident Command System (ICS) 100 and 700</b></p> <p><b>Physical Training (PT)</b></p>	<ul style="list-style-type: none"> <li>• What is NIMS and FEMA?</li> <li>• How does ICS effect the duties of an EMT and who is required to have ICS Certification?</li> <li>• How is an emergency incident properly run?</li> <li>• What is the command structure for an emergency incident?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Examine the purpose of ICS and its basic features</li> <li>• Discuss National Incident Management System (NIMS) and the purpose of the Federal Emergency Management Agency (FEMA)</li> <li>• Analyze the role and functions of the Incident Commander, command staff, general staff, operations, planning, logistics and finance/administration sections</li> <li>• Describe the six basic ICS facilities</li> <li>• Identify facility map symbols</li> <li>• Describe emergency incident protocols and understand emergency incident command structure</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Written summaries emergency incident protocols.</li> <li>• Successful completion of FEMA's ICS 100 and ICS 700 courses</li> <li>• Participate in weekly fitness drills</li> </ul>	<p><b>Career Ready Practice</b> CRP1,3,4,9,12</p>	<p><b>Literacy</b> RST.11-12.1,3,4 WHST.11-12.2a, b,d SL.11-12.1a,b</p> <p><b>ELA</b> RI11-12.1-6,8 W11-12.2,4-6 SL11-12.1,2 L11-12.1-3,6</p>
				<p><b>Cluster Standards</b> LW2,3,4</p>	<p><b>Math</b></p>
				<p><b>Pathway Standards</b> LW-EFM2,4,6,9,11, 14</p>	<p><b>Science</b> MAS1.K1 S2.K1 S6.K5 HS-LS1-3.</p>
				<p><b>Industry Standards</b></p>	
<p><b>Weeks 14-15</b></p> <p><b>Chemistry of Hazardous</b></p>	<ul style="list-style-type: none"> <li>• What is HazMat, and what are hazardous materials?</li> <li>• Which agencies regulate</li> </ul>	<ul style="list-style-type: none"> <li>• Describe materials classified as hazardous material</li> <li>• Define HazMat and identify the associated regulatory</li> </ul>	<ul style="list-style-type: none"> <li>• Research and written reports on HazMat and regulatory agencies</li> </ul>	<p><b>Career Ready Practice</b> CRP2,3,5,7,9,12</p>	<p><b>Literacy</b> RST.11-12.1,4,5 WHST.11-12.2a, b,d, 4,6,7</p>

<b>Materials</b>  <b>Physical Training (PT)</b>	the use and handling of hazardous materials? <ul style="list-style-type: none"> <li>• What do fire rescue workers need to know to work safely with hazardous materials?</li> <li>• Are you physically and mentally fit?</li> </ul>	agencies <ul style="list-style-type: none"> <li>• Describe the chemistry of hazardous materials</li> <li>• Understand how to contain HazMat situations</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team.</li> </ul>	<ul style="list-style-type: none"> <li>• HazMat Response certification through "Saferesponse.com"</li> <li>• Participate in weekly fitness drills</li> </ul>		<b>ELA</b> RI11-12.1-5,8 W11-12.2,4-9 SL11-12.1 L11-12.1-6
				<b>Cluster Standards</b> LW 2,3	<b>Math</b>
				<b>Pathway Standards</b> LW-EFM3,5,12	<b>Science</b> ED.S1.K1 S1.K2 S2.K1 S4.K3, K4 S6.K5 HS-PS1-2.3.9.
				<b>Industry Standards</b>	
<b>Weeks 16-17</b>  <b>Fire Dynamics and Pyrolysis</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What are the four types of fire?</li> <li>• How does fire grow and develop?</li> <li>• How can this process be stopped or contained?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the four types of fires</li> <li>• Describe the chemical components of fire</li> <li>• Understand the fire tetrahedron</li> <li>• Understand the effects of changing a component in the fire tetrahedron</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Guest speaker fire dynamics</li> <li>• Student generated questions</li> <li>• Written summaries on fire presentation</li> <li>• Participate in weekly fitness drills</li> </ul>	<b>Career Ready Practice</b> CRP1,2,3,5,7,12	<b>Literacy</b> RST.11-12.1,2,3 WHST.11-12.4,6 SL.11-12.1a,3
					<b>ELA</b> RI11-12.1-5 W11-12.2,4-6 SL11-12.1-3 L11-12.1-6
				<b>Cluster Standards</b> LW1,2,3	<b>Math</b>
				<b>Pathway Standards</b> LW-EFM3,4,5,12	<b>Science</b> S2.K1 S6.K2,5 HS-LS1-3. HS-PS3-1
			<b>Industry Standards</b>		
<b>Week 18</b>  <b>Heat Transfer</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What is meant by the term "Heat Transfer?"</li> <li>• What are the different methods of Heat Transfer?</li> <li>• How do these change fire patterns and growth?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Define "Heat Transfer?"</li> <li>• Discuss the 3 methods of Heat Transfer</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Field visit to arson training center</li> <li>• Student developed questions for guest speaker</li> <li>• Reaction papers on guest speaker information</li> <li>• Practical assessment in identifying and</li> </ul>	<b>Career Ready Practice</b> CRP2,3,5,7,9,12	<b>Literacy</b> RST.11-12.1,3,4,5 WHST.11-12.4,6 SL.11-12.1a,c,3
					<b>ELA</b> RI11-12.1-4,7,8 W11-12.2,4,5,9,10 SL11-12.1-3 L11-12.1-6

			working with different methods of heat transfer ● Participate in weekly fitness drills	<b>Cluster Standards</b> LW2,3	<b>Math</b>
				<b>Pathway Standards</b> LW-EFM5,12	<b>Science</b> S2.K1 S4.K4 S6.K5 HS-LS1-3. HS-PS3-2
				<b>Industry Standards</b>	
<b>Week 19-21:</b>  <b>Evidence Collection and Documentation</b>	<ul style="list-style-type: none"> <li>● How is evidence collected and analyzed?</li> <li>● What is the value of evidence?</li> <li>● What procedures are implemented at a crime scene and why they are important?</li> <li>● Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>● Conduct a systematic search of a mock crime scene</li> <li>● Demonstrate crime scene sketching</li> <li>● Draw inferences and analyze crime scene evidence to develop a hypothesis</li> <li>● Demonstrate correct techniques to collect and package crime scene evidence</li> <li>● Demonstrate chain of custody and proper handling of evidence</li> <li>● Identify and explain the role of the: medical examiner, CSI, first responder, forensic specialists, photographers</li> <li>● State and describe the steps in processing a crime scene</li> <li>● Improve fitness</li> </ul>	<ul style="list-style-type: none"> <li>● Written summaries on collection and documentation process. How does this effect fire investigators and firefighters in the field?</li> <li>● Anticipation Guide: Eyewitness Myths</li> <li>● Lab: Chain of Custody</li> <li>● Triangulate evidence</li> <li>● Lab: Crime Scene Sketch Reconstruction</li> <li>● Ethical Case Studies Crime Scene Scenarios: Processing Mistakes</li> <li>● Weekly fitness drills</li> </ul>	<b>Career Ready Practice</b> CRP2,3,5,7,9,12	<b>Literacy</b> RST.11-12. 1, 4 WHST.11-12. 2b, d, 4, 5,7
<b>Physical Training (PT)</b>				<b>Cluster Standards</b> LW2,3	<b>Math</b> MP 1,2,4,5,6
				<b>Pathway Standards</b> LW-EFM5,12	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.
				<b>Industry Standards</b>	
<b>Week 22-24:</b>  <b>Scene Preservation Importance/</b>	<ul style="list-style-type: none"> <li>● How is arson investigated?</li> <li>● What is an accelerant?</li> <li>● What are signs of arson?</li> <li>● Are explosives treated</li> </ul>	<ul style="list-style-type: none"> <li>● Outline the systemic process of an arson investigation, including evidence collection and preservation</li> </ul>	<ul style="list-style-type: none"> <li>● Identify explosives in a laboratory</li> <li>● Field visit to recent fire scene with SFD arson investigators</li> </ul>	<b>Career Ready Practice</b> CRP2,3,5,7,9,12	<b>Literacy</b> RST.11-12.1,2,3, 4,7,8,9 WHST.11-12.1,2, 4,7,8,9

<b>Cause Determination</b>  <b>Physical Training (PT)</b>	differently from other incendiary devices • Are you physically and mentally fit?	<ul style="list-style-type: none"> <li>• Identify signs of arson, cite the primary motives for arson and examine the use of accelerants</li> <li>• Understand commonly used explosives and Compare/contrast different types</li> <li>• Clarify the difference between fire and explosions</li> <li>• Examine the information provided by smoke and fire color</li> <li>• Explain the importance of point of origin and discuss burn patterns examples</li> <li>• Improve fitness levels</li> </ul>			<b>ELA</b> RI11-12.1-8 W11-12.2,4-6 SL11-12.1-3 L11-12,1,2,4,6
				<b>Cluster Standards</b> LW2,3	<b>Math</b>
				<b>Pathway Standards</b> LW-EFM5,12	<b>Science</b> S2.K1 S6.K5 HS-LS1-3.
				<b>Industry Standards</b>	
<b>Weeks 25-27:</b>  <b>Methods of Preserving a Fire Scene</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How can firefighters help to preserve a fire scene, when their main priority is life and property safety?</li> <li>• What do we mean by “overhaul”?</li> <li>• What are the best methods of fire scene preservation?</li> <li>• What arson indicators should a firefighter look for when battling blazes?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Examine methods of preserving physical evidence</li> <li>• Overcome the destruction that overhaul creates</li> <li>• Differentiate hose streams that may be used</li> <li>• Demonstrate methods of “continuous custody”</li> <li>• Improve fitness levels and work as a member of a cohesive unit/team</li> </ul>	<ul style="list-style-type: none"> <li>• Educational/training quick reference pamphlets on ways to best preserve a fire scene to allow accurate cause determination</li> <li>• Participate in weekly physical fitness</li> <li>• Physical fitness progress evaluations</li> </ul>	<b>Career Ready Practice</b> CRP1,2,3,5,7,9,12	<b>Literacy</b> RST.11-12.1,4,5 WHST.11-12.2b, d,4,5 SL.11-12.1b,2,4,5
					<b>ELA</b> RI11-12.1-4,8 W11-12.2,4-6,10 SL11-12.1-3 L11-12.1,2,4,6
				<b>Cluster Standards</b> LW2,3	<b>Math</b>
				<b>Pathway Standards</b> LW-EFM5,12	<b>Science</b> S2.K1 S6.K5 HS-LS1-3. SI.S1.K3
<b>Industry Standards</b>				<b>Career Ready Practice</b> CRP2,3,5,7,9,12	<b>Literacy</b> RST.11-12.1,2 SL.11-12.1a
<b>Weeks 28-31:</b>  <b>Psychology of</b>	<ul style="list-style-type: none"> <li>• What are reasons people commit arson?</li> <li>• How can the patterns of</li> </ul>	<ul style="list-style-type: none"> <li>• Basics of profiling an arsonist</li> <li>• Motives and patterns of a</li> </ul>	<ul style="list-style-type: none"> <li>• Successfully complete Point of Origin: Playing with</li> </ul>	<b>Career Ready Practice</b> CRP2,3,5,7,9,12	<b>Literacy</b> RST.11-12.1,2 SL.11-12.1a



<p><b>an Arsonist</b></p> <p><b>Physical Training (PT)</b></p>	<p>a serial arsonist lead to their discovery?</p> <ul style="list-style-type: none"> <li>• What are the differences between a serial arsonist and a person who commits a random act of arson?</li> <li>• How can an investigator “get to know” the arsonist based on evidence left behind?</li> <li>• Are you physically and mentally fit?</li> </ul>	<p>serial arsonist</p> <ul style="list-style-type: none"> <li>• Improve fitness levels</li> </ul>	<p>Fire by John Orr</p> <ul style="list-style-type: none"> <li>• Guest speaker on behavioral analysis and profiling. Written debrief from guest speaker</li> <li>• Participate in weekly physical fitness</li> </ul>	<p><b>Cluster Standards</b> LW2,3</p> <p><b>Pathway Standards</b> LW-EFM5,12</p> <p><b>Industry Standards</b></p>	<p><b>ELA</b> RI11-12.1-4,6-8 W11-12.2,4 SL11-12.1 L11-12.1,2,4,6</p> <p><b>Math</b></p> <p><b>Science</b> S2.K1 S6.K5 HS-LS1-3.</p>
<p><b>Weeks32-33:</b></p> <p><b>Incendiary Devices throughout History</b></p> <p><b>Physical Training (PT)</b></p>	<ul style="list-style-type: none"> <li>• How has history informed fire investigators about the use of incendiary devices?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and describe a variety of incendiary devices and how they are used</li> <li>• Discuss historic cases using incendiary devices</li> <li>• Explain the need for observation skills during fire suppression</li> <li>• Improve fitness levels</li> </ul>	<ul style="list-style-type: none"> <li>• Case study discussions</li> <li>• Quiz on incendiary devices</li> <li>• Participate in weekly physical fitness</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,3,5,7,12</p> <p><b>Cluster Standards</b> LW1,2,3</p> <p><b>Pathway Standards</b> LW-EFM3,4,5,12,13,15</p> <p><b>Industry Standards</b></p>	<p><b>Literacy</b> RST.11-12.1,2,4,5 WHST.11-12.4,6,7</p> <p><b>ELA</b> RI11-12.1-4,6 W11-12.2,4,10 SL11-12.1a,2 L11-12.1,2,4,6</p> <p><b>Math</b></p> <p><b>Science</b> SIS1.K2 S2.K1 S6.K5 HS-LS1-3. HS-PS3-3.</p>
<p><b>Weeks 34-35:</b></p> <p><b>Laws, Sentencing, and Expert Testimony</b></p> <p><b>Physical Training (PT)</b></p>	<ul style="list-style-type: none"> <li>• What are the laws and penalties for arsonists?</li> <li>• Who may serve as an “expert witness”?</li> <li>• Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how science is used to solve crimes</li> <li>• Describe the importance of physical evidence</li> <li>• List the types of evidence (eyewitness, class evidence, and physical evidence)</li> <li>• Discuss how evidence is used to convince a jury of</li> </ul>	<ul style="list-style-type: none"> <li>• “Death by Fire” Case Study</li> <li>• Reading: “Six Astonishing Mistakes that will Make you Rethink the Death Penalty”</li> <li>• Lab: Garbage-ology</li> </ul>	<p><b>Career Ready Practice</b> CRP1,2,3,5,7,12</p>	<p><b>Literacy</b> RST.11-12.1,2,4,5 WHST.11-12.4,6,7</p> <p><b>ELA</b> RI11-12.1-6,8 W11-12.2,4,10 SL11-12.1a,2 L11-12.1,2,4,6</p>

		<ul style="list-style-type: none"> <li>guilt</li> <li>Improve fitness levels</li> </ul>	<ul style="list-style-type: none"> <li>Reading: CSI Effect</li> <li>Participation in weekly physical fitness</li> </ul>	<b>Cluster Standards</b> LW1,2,3	<b>Math</b>
				<b>Pathway Standards</b> LW-EFM3,4,5,12,13,15	<b>Science</b> SI.S1.K2 S2.K1 S6.K5 HS-LS1-3.
				<b>Industry Standards</b>	
<b>Weeks 36-37:</b>  <b>Chemical Warfare Agents and IEDs</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>What are chemical warfare agents, and how are they used?</li> <li>How are chemical warfare agents identified?</li> <li>Are you physically and mentally fit?</li> </ul>	<ul style="list-style-type: none"> <li>Understand why chemical warfare agents are a threat, small scale and large scale.</li> <li>Discuss specific events using chemical warfare,</li> <li>Improve fitness levels</li> </ul>	<ul style="list-style-type: none"> <li>Research on chemical warfare and group presentations</li> <li>Receive “Container Inspections” certification from saferesponse.com</li> <li>Participation in weekly physical fitness</li> </ul>	<b>Career Ready Practice</b> CRP1,2,3,5,7,12	<b>Literacy</b> RST.11-12.1,2,4,5 WHST.11-12.4,6,7
				<b>Cluster Standards</b> LW1,2,3	<b>ELA</b> RI.11-12.1-5 W.11-12.2,4,7,10 SL.11-12.1 L.11-12.1,2,4,6
				<b>Pathway Standards</b> LW-EFM3,4,5,12,13,15	<b>Science</b> S2.K1 S6.K5 HS-LS1-3. HS-PS1-2,5
				<b>Industry Standards</b>	
<b>Weeks 38-40:</b> <b>Review and Final Exam</b>	<ul style="list-style-type: none"> <li>Final Review</li> </ul>	<ul style="list-style-type: none"> <li>Preparation for Final Exams</li> </ul>	<ul style="list-style-type: none"> <li>Written Final Exam</li> </ul>	<b>Career Ready Practice</b>	<b>Literacy</b>
					<b>ELA</b>
				<b>Cluster Standards</b>	<b>Math</b>
				<b>Pathway Standards</b>	<b>Science</b>
				<b>Industry Standards</b>	

**Syracuse City School District**  
**Career and Technical Education Program**  
**Course Syllabus**  
**FRP300: Fire Rescue 300**



**Program Overview**

The Fire Rescue program at PSLA is designed to provide students with experience in the field of firefighting and to prepare them for the fire academy. Throughout the program, a wide-range of topics will be covered ranging from fire safety and awareness, fire suppression, firefighter survival skills to planning for a city wide disaster. Students will become certified in CPR and First Aid, receive FEMA certifications and CFR Emergency Medical Responder certification. The program offers job shadow and internship experiences, the opportunity to earn college credits from OCC and credit for the completion of New York State Firefighter courses. Those successfully completing the program will earn a Regents diploma and pass an industry-based assessment to receive a technical endorsement on their diploma. Career opportunities include Firefighter, Fire Protection Professional, Industrial Fire Safety Professional and Fire Investigator.

**Course Description**

Students in this course will continue to work on proficiency in firefighter skills and become aware of the high degree of planning and writing involved in planning for disasters. Students will complete reports and analyze laws related to patient and firefighter rights. A review of current incident plans in major cities and an analysis of plans in place for Onondaga County is completed and students will develop incident plans for implementation at PSLA. CPR and First Aid Certification is part of FRP300 and students will also earn their Emergency Medical Responder certificate.

**Pre-Requisites**

FRP 100-Essentials of Firefighting  
FRP 200-Fire Science

**Course Objectives**

Students will:

1. Continue to gain proficiency in fire rescue skills.
2. Gain knowledge and skill in technical writing.
3. Demonstrate basic knowledge of the situational planning and pre-planning.
4. Increase their understanding about interacting with and educating the public.
5. Demonstrate greater knowledge of the roles and responsibilities of emergency medical responders.
6. Complete CPR & First Aid Certification.
7. Obtain CFR/Emergency Medical Responder Certification.

**Integrated Academics**

- 1 CTE Credit for successful completion of this course.
- 1 English Credit for successful completion of this course.

## Equipment and Supplies

- School will provide: Textbooks and all other print material; PT Gear (1 PT T-shirt, 1 sweat suit) Class uniform (1 uniform pant, 1 uniform shirt, 1 pair shoes, 1 belt)
- Student will provide: N/A

## Textbook

TBD

## Grading

20%	Tests	15%	Quizzes
15%	Classwork	10%	Homework
20%	PT Lab Grade	20%	Participation

## Additional Course Policies

Students must receive a standard sports physical for entry into this course.

Students are required to follow all classroom and lab safety rules. Students must participate in weekly Physical Training Drills.

## Course Calendar

Quarter	Units of Study
1	Review of equipment, safety expectations and vocab Introduction to Emergency Management Planning and Technical Writing Writing Process and Collaborative Writing Memos, Faxes, E-Mails; and Letters How to get a job Document Design and Visuals Review of Emergency Management Review of Incident Command and Department Structures
2	Instructions and Procedures; Short Reports and Proposals Oral Presentations Onondaga County Emergency Management Emergency Management in the Fire Rescue Field
3	Human Body Systems/Well Being Legal/Ethical issues Lifting and Moving Patients Airway Patient Assessment Circulation Illness and Injury Pt 1 (Bleeding and Soft Tissue) Illness and Injury Pt2 (Injuries and Muscles to Bones) Childbirth and Children EMS Operations
4	Complete CFR Coursework Job Search

**Syracuse City School District**  
**Career and Technical Education Program**  
**Scope and Sequence**  
**FRP 300: Fire Rescue Program 300**



Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, ELA, Math, Science
<b>Week 1</b>  <b>Team Building Activities</b>  <b>Review of Safety Procedures</b>	<ul style="list-style-type: none"> <li>● What is the purpose of working together as a team?</li> <li>● Why do we never work alone?</li> </ul>	<ul style="list-style-type: none"> <li>● Understand 2 in-2 out rule and its application</li> <li>● Analyze data/statistics and determine how many LODD and injuries could be prevented with better teamwork</li> <li>● Identify and describe the uses of classroom equipment</li> <li>● Demonstrate the safe and proper use/handling of equipment in the Fire Rescue classroom</li> </ul>	<ul style="list-style-type: none"> <li>● Case studies on “freelancing” incidents and LODD</li> <li>● Written report on the importance of teamwork</li> <li>● Skills based test on equipment use/handling</li> </ul>	<b>Career Ready Practice</b> CRP1,4,6,9	<b>Literacy</b> RST.11-12.1,2,4, 7 WHST.11-12.2,4,9, 10
				<b>Cluster Standards</b> LW4	<b>ELA</b> W.11-12.4-8 SL.11-12.1,2,4,5
				<b>Pathway Standards</b> LW-EFM1,4,5,6,10, 11	<b>Science</b>
				<b>Industry Standards</b>	
<b>Week 2</b>  <b>Introduction to Emergency Management Planning and Technical Writing</b>	<ul style="list-style-type: none"> <li>● What is Emergency Management?</li> <li>● What is the difference between technical writing, academic writing and business writing?</li> </ul>	<ul style="list-style-type: none"> <li>● Describe the roles of Emergency Management</li> <li>● Analyze the writing and planning involved in emergency preparation</li> </ul>	<ul style="list-style-type: none"> <li>● Research examples of the types of writing that will be discussed in class</li> <li>● Venn Diagram comparing different forms of writing</li> </ul>	<b>Career Ready Practice</b> CRP 2,4,7,11	<b>Literacy</b> RST.11-12.4,5,6
				<b>Cluster Standards</b> LW1	
				<b>Pathway Standards</b> LW-EFM1	<b>ELA</b> SL.11-12.1,2,4
				<b>Industry Standards</b>	<b>Science</b> PS.SI1.K1
<b>Week 3</b>  <b>Writing Process and</b>	<ul style="list-style-type: none"> <li>● What is the writing process and why is it important?</li> <li>● When will I use</li> </ul>	<ul style="list-style-type: none"> <li>● Describe the writing process</li> <li>● Apply proof reading and editing skills</li> <li>● Demonstrate the writing</li> </ul>	<ul style="list-style-type: none"> <li>● Quiz on steps of the writing process</li> <li>● Proof reading and editing assignments</li> </ul>	<b>Career Ready Practice</b> CRP2,4,12	<b>Literacy</b> RST.11-12.4 WHST.11-12.4,5

<b>Collaborative Writing</b>  <b>Physical Training (PT)</b>	collaborative writing in my career?	process • Analyze career-oriented Collaborative writing (grant requests)	• Collaborative writing-peer created checklist	<b>Cluster Standards</b>  <b>Pathway Standards</b> LW-EFM1  <b>Industry Standards</b>	  <b>ELA</b> W.11-12.4-8 SL.11-12.2,4,5,6  <b>Science</b> PS.SI1.K1	
	<b>Week 3</b>  <b>Memos, Faxes, E-Mails; and Letters</b>  <b>Physical Training (PT)</b>	• How do I read, understand and write professional memos and emails? • How do professional emails differ from personal emails?	• Demonstrate proficiency in producing professional emails and letters • Distinguish characteristics of personal and professional documents • Apply correct formatting to written/typed documents • Use technology to generate professional correspondence	• Transcription assignments- • Format and type business memos, faxes, emails and letters	<b>Career Ready Practice</b> CRP1,4,11  <b>Cluster Standards</b>	<b>Literacy</b> RST.11-12.1,2,4,5 WHST.11-12.4,5,6  <b>ELA</b> W.11-12.4,5,6 SL.11-12.1,3  <b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5
					<b>Pathway Standards</b> LW-EFM1	
<b>Cluster Standards</b>						
<b>Week 4-5</b>  <b>How to Get a Job</b>  <b>Physical Training (PT)</b>	• What does a good resume look like? • How should I write a cover letter? • How should I dress and conduct myself in an interview? • What kinds of questions should I expect at the interview?	• Identify behaviors noticed during an interview • Develop and type a resume and cover letter to apply for a job in the classroom • Develop responses to a list of general interview questions • Identify legal and illegal interview questions	• Writing Assignment: Develop a resume based upon the job-seeking lessons • Students with current resumes may review and update information for submittal • Mock interview participation	<b>Career Ready Practice</b> CRP1,2,4,8,10,11  <b>Cluster Standards</b> LW1,6	<b>Literacy</b> RST.11-12.4,7 WHST.11-12.4,5,6  <b>ELA</b> W.11-12.4,5,6,8 SL.11-12.1,2,4,6  <b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5	
				<b>Pathway Standards</b>		<b>Industry Standards</b>
				<b>Cluster Standards</b>		
<b>Week 6</b>  <b>Document Design and Visuals</b>  <b>Physical</b>	• Why are well designed documents and visuals important in professional careers? • How will I recognize the characteristics of quality documents and	• Identify qualities that well designed graphic documents possess • Describe why eye-appeal is important in presentations • Evaluate selected presentations for	• Apply formatting, editing and design skills to critique content and format of the "City of New Orleans EOC Update, 0900 hours, 8	<b>Career Ready Practice</b> CRP1,2,4,8,11  <b>Cluster Standards</b>	<b>Literacy</b> RST.11-12.4,5,6,7 WHST.11-12.5	
				<b>Pathway Standards</b>		<b>Industry Standards</b>

<b>Training (PT)</b>	visuals?	attractiveness and appeal	November 2006 PowerPoint presentation <ul style="list-style-type: none"> <li>• Make recommendations to modify and improve the presentation's effectiveness</li> <li>• Provide rationale (referencing course textbook guidance) for recommendations?</li> </ul>	<b>Pathway Standards</b>	<b>ELA</b> W.11-12.1,2,4,5,6,7 SL.11-12.1,3,4,5,6
<b>Week 7-8</b>  <b>Review of Emergency Management</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How does ICS 100 &amp; 700 fit into Emergency Management?</li> </ul>	<ul style="list-style-type: none"> <li>• Dramatize an account of a city wide disaster</li> <li>• Diagram the chain of command in this case</li> </ul>	<ul style="list-style-type: none"> <li>• Skit</li> <li>• Graphic on Chain of Command</li> </ul>	<b>Career Ready Practice</b> CRP1,4,6,8,9,12	<b>Literacy</b>
				<b>Cluster Standards</b>	
				<b>Pathway Standards</b> LW-EFM14	<b>ELA</b> W.11-12.3-6 SL.11-12.1,2,4,5
				<b>Industry Standards</b>	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 9-10</b>  <b>Review of Incident Command and Department Structures</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How does Incident Command differ from Emergency Management?</li> <li>• How is a Fire Department organized and operated?</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate knowledge of the chain of command in a fire department</li> <li>• Design a quick reference card for on-scene IC chain of command</li> </ul>	<ul style="list-style-type: none"> <li>• Quick Reference IC Card activity</li> <li>• Peer reviews of quick reference IC cards</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,7,8,9,11,12	<b>Literacy</b> RST.11-12.3,4 WHST.11-12.4
				<b>Cluster Standards</b> LW2,3	<b>ELA</b> W.11-12.2,4,5,6,7 SL.11-12.1,4,5
				<b>Pathway Standards</b> LW-EFM1,4,5,12,14	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5
				<b>Industry Standards</b>	
<b>Weeks 11-13</b>  <b>Instructions</b>	<ul style="list-style-type: none"> <li>• How is writing different for a career in emergency services</li> </ul>	<ul style="list-style-type: none"> <li>• Create a condensed version of a count EOP, without losing vital content</li> </ul>	<ul style="list-style-type: none"> <li>• Writing Assignment: Review and revise the provided Emergency</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,8,11	<b>Literacy</b> RST.11-12.2,3,4 WHST.11-12.4,5,6

<b>and Procedures; and, Short Reports and Proposals</b>  <b>Physical Training (PT)</b>	than another career path? • What is a short report, and how is it used?	• Apply knowledge of keywords and descriptors in report writing/instruction writing • (PBJ Activity)	Support Function (ESF) 8 Annex of a generic County Emergency Operations Plan (EOP) • Select a method for revision from the textbook and other course materials and presentations • Create a more concise Annex while retaining essential content	<b>Cluster Standards</b>  <b>Pathway Standards</b> LW-EFM1,12  <b>Industry Standards</b>	<b>ELA</b> W.11-12.2,4,5,6 SL.11-12.1,3  <b>Science</b>	
	<b>Week 14-15 Oral Presentations</b>  <b>Physical Training (PT)</b>	• How do I make technical writing understandable?	• Create a new technical writing manual that can be understood easily, yet teaches necessary skills	• Writing Assignment: Choose a technical process, e.g. changing mobile radio channels, starting an I.V., etc.; and develop written procedures based upon the guidance provided in this week's course content on writing instructions and procedures	<b>Career Ready Practice</b> CRP1,4,8	<b>Literacy</b> RST.11-12.3,4 WHST.11-12.4,5,6
					<b>Cluster Standards</b> LW2	<b>ELA</b> W.11-12.2,4,5,6 SL.11-12.1,2,4,5,6
<b>Pathway Standards</b> LW-EFM1,12  <b>Industry Standards</b>					<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5	
<b>Week 16-17 Oral Presentations II; Wrap-up</b>  <b>Physical Training (PT)</b>	• How do we plan for large scale disasters? • How do you work effectively and efficiently with outside agencies?	• Create a plan to keep students and property safe during a disaster, as well as notify all necessary individuals of ongoing events.	Disaster Plan Projects: • Develop a disaster plan for PSLA, based on selected scenarios in consideration of student safety, designated staff roles, transportation, evacuation details, parent and media notifications	<b>Career Ready Practice</b> CRP1,4,8,9,11,12	<b>Literacy</b> RST.11-12.2,3,4 WHST.11-12.2,4,5,6	
				<b>Cluster Standards</b> LW3	<b>ELA</b> W.11-12.2,4-8 SL.11-12.1,2,4,5	
				<b>Pathway Standards</b> LW-EFM1,2,11,12,14  <b>Industry Standards</b>	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5	
<b>Week 18 Onondaga County</b>	• How does Onondaga County Emergency Management effect the Syracuse Fire	• Identify OCEM roles in emergency responses/ planning county wide • Illustrate understanding of	• Short paper on history, roles and responsibilities, major events of OCEM	<b>Career Ready Practice</b> CRP1,2,4,8,9,11,12	<b>Literacy</b> RST.11-12.2,4,7 WHST.11-12.2,4,6,7,8,9	



<b>Emergency Management</b>  <b>Physical Training (PT)</b>	Department? <ul style="list-style-type: none"> <li>• What possible career opportunities are in Emergency Management?</li> </ul>	how OCEM managed past emergencies, and its impact on current, future plans	<ul style="list-style-type: none"> <li>• Field trip to OCEM</li> </ul>	<b>Cluster Standards</b> LW 1,6	<b>ELA</b> W.11-12.2,4,5,6,7,8 SL.11-12.1
				<b>Pathway Standards</b> LW-EFM1,8	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 19-20</b>  <b>Emergency Management in the Fire Rescue Field</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How would I, as a firefighter, interact with Emergency Management?</li> <li>• Would I be able to implement an emergency management drill?</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and implement an emergency management oriented drill in the school.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan and administer an emergency drill in the school</li> <li>• After Action Report/Debrief</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,8,9,11,12	<b>Literacy</b> RST.11-12.3,4,5,9 WHST.11-12.4,5,6,7
				<b>Cluster Standards</b> LW3	<b>ELA</b> W.11-12.2, 4-8 SL.11-12.1,2,4,5
				<b>Pathway Standards</b> LW-EFM1,2,5,9,12	<b>Science</b> PS.ED1.K1 PS.S2.K1 HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 21</b>  <b>Human Body Systems</b>  <b>Well Being</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What is anatomy and physiology?</li> <li>• What is the anatomy and physiology of each body system?</li> <li>• Why would a CFR use anatomic terms?</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the body's topographic anatomy, including the anatomic positions and body planes</li> </ul>	<ul style="list-style-type: none"> <li>• Application of anatomical terms</li> <li>• Quiz</li> <li>• Team vocabulary foldable</li> <li>• Quiz on each body system</li> <li>• Team presentation on a body system and associated disease</li> </ul>	<b>Career Ready Practice</b> CRP2,11,12	<b>Literacy</b> RST.11-12.4,7 WHST.11-12.4,5,6
				<b>Cluster Standards</b>	<b>ELA</b> W.11-12.2,4,5,6,7 SL.11-12.1,2,3,4,5,6 L.11-12.1,2,5,6
				<b>Pathway Standards</b> LW-EFM1,13	<b>Science</b> LE.S4.K5 HS-LS1-2,3 PS.S2.K1 PS.S6.K5
				<b>Industry Standards</b>	
<b>Week 22</b>  <b>Legal/ Ethical issues</b>	<ul style="list-style-type: none"> <li>• How do legal and ethical issues impact the CFR?</li> <li>• What guidelines should</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize the importance of detailed record keeping and data collection as a CFR</li> <li>• Analyze HIPAA regulations,</li> </ul>	<ul style="list-style-type: none"> <li>• Written assignment on HIPAA Case Violations</li> <li>• Summary of Patient</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,8,11	<b>Literacy</b> RST.11-12.1,3,4,8 WHST.11-12.4,5,6,7,8,9

<b>Lifting and Moving Patients</b>  <b>Physical Training (PT)</b>	<p>CFRs follow to protect themselves from legal action?</p> <ul style="list-style-type: none"> <li>• How do HIPAA, Patient Rights and the ADA impact the CFR career field?</li> <li>• What is the impact of the Good Samaritan Act on CFRs?</li> <li>• What is an ethical decision?</li> <li>• What is the correct way to lift and/or transport a patient?</li> </ul>	<p>Patient Rights and the Americans with Disabilities Act in relation to the CFR position</p> <ul style="list-style-type: none"> <li>• Describe the impact of the Health Insurance Portability and Accountability Act (HIPAA) on patient privacy</li> <li>• Predict how ethical decisions might strike at core human values as part of the CFR position</li> <li>• Examine the Good Samaritan Act and how it affects the CFR in providing medical services</li> <li>• Demonstrate appropriate equipment use Demonstrate safe patient lifting and transporting</li> </ul>	<p>Rights documents and what they protect</p> <ul style="list-style-type: none"> <li>• Summary of research on current legal and ethical issues in the medical field</li> <li>• Written statement of ethical behavior</li> <li>• Quiz on Good Samaritan Act</li> <li>• Practical assessment on lifting, transporting, and patient drags</li> <li>• Quiz on patient transport methods</li> </ul>	<p><b>Cluster Standards</b> LW3,4</p>	<p><b>ELA</b> W.11-12.2,4,5,6 SL.11-12.1 L.11-12.1,2,5,6</p>
	<p><b>Pathway Standards</b> LW-EFM1,5,10</p>	<p><b>Science</b> PS.S6.K2,5 HS-LS1-3 PS.S2.K1</p>			
<b>Week 23</b>  <b>Airway</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• What are the components of the human respiratory system?</li> <li>• How does the human respiratory system function?</li> <li>• How do CFRs treat inadequate breathing?</li> </ul>	<ul style="list-style-type: none"> <li>• List the components of the human respiratory system and explain their function</li> <li>• Analyze typical patient airway issues</li> <li>• Demonstrate airway management techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Quiz on function of human respiratory system</li> <li>• Written summary of airway management techniques</li> <li>• Demonstration of airway management techniques</li> </ul>	<p><b>Career Ready Practice</b> CRP2,3,4,8,11</p>	<p><b>Literacy</b> RST.11-12.3,4,5 WHST.11-12.2,4,5,6</p>
				<p><b>Cluster Standards</b> LW 3,4</p>	<p><b>ELA</b> W.11-12.2,4,5,6 SL.11-12.1 L.11-12.1,2,5,6</p>
				<p><b>Pathway Standards</b> LW-EFM1,2,3,9,10</p>	<p><b>Science</b> HS-LS1-2,3</p>
				<p><b>Industry Standards</b></p>	<p>PS.S2.K1 PS.S6.K5</p>
<b>Week 24</b>  <b>Patient Assessment</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>• How is the medical condition of a patient assessed?</li> <li>• What skills are necessary to perform patient assessments?</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how the CFR approaches the process of patient evaluation</li> <li>• Analyze how patient evaluation impacts treatment decisions</li> <li>• Demonstrate steps in the patient assessment process</li> </ul>	<ul style="list-style-type: none"> <li>• Group data collection on patient medical conditions</li> <li>• Written summary of patient assessment procedure</li> <li>• Role playing exercise between CFR and</li> </ul>	<p><b>Career Ready Practice</b> CRP2,4,8,11,12</p>	<p><b>Literacy</b> RST.11-12.1,2,4,6,7,9 WHST.11-12.1,2,4,5,6,7,9</p>
				<p><b>Cluster Standards</b> LW 4,5</p>	<p><b>ELA</b> W.11-12.2,4,5 6 SL.11-12.1,4,6 L.11-12.1,2,5,6</p>
				<p><b>Pathway Standards</b></p>	<p><b>Science</b></p>

			Patient-Rubric scored	LW-EFM1,3,7 <b>Industry Standards</b>	LE.S1.K2 HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 25</b> <b>Circulation</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>•What is the function of the circulatory system?</li> <li>•Why is it important for a CFR to understand the circulatory system?</li> </ul>	<ul style="list-style-type: none"> <li>•Identify and describe the different sections and functions of the heart</li> <li>•Examine the differences in veins and arteries and the function of each</li> <li>•Demonstrate the ability to stop blood flow when needed</li> </ul>	<ul style="list-style-type: none"> <li>•Quiz on circulatory system</li> <li>•Life-size poster demonstrating circulatory system path through the body</li> </ul>	<b>Career Ready Practice</b> CRP2,3,4,8,11	<b>Literacy</b> RST.11-12.4,5,7 WHST.11-12.4,5,7
				<b>Cluster Standards</b> LW3,4	<b>ELA</b> W.11-12.4 SL.11-12.1,4 L.11-12.2,5,6
				<b>Pathway Standards</b> LW-EFM1,2,3,9,10	<b>Science</b> HS-LS1-2
				<b>Industry Standards</b>	LE.S4.K5 HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 26</b> <b>Illness and Injury-Part 1 (Bleeding and Soft Tissue)</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>•What are soft tissue injuries to the body?</li> <li>•How does a CFR treat a patient with a soft tissue injury?</li> </ul>	<ul style="list-style-type: none"> <li>•Examine soft tissue injuries</li> <li>•Explain treatments used for a soft tissue injury</li> <li>•Demonstrate treatments for soft tissue injuries</li> </ul>	<ul style="list-style-type: none"> <li>•Quiz</li> <li>•Lab Practice</li> <li>•Creation of information posters on soft tissue injuries</li> </ul>	<b>Career Ready Practice</b> CRP2,3,4,8,11,12	<b>Literacy</b> RST.11-12.1,4,7 WHST.11-12.2,7,8,9
				<b>Cluster Standards</b> LW3,4	<b>ELA</b> W.11-12.2,4 SL.11-12.1,4 L.11-12.2,5,6
				<b>Pathway Standards</b> LW-EFM1,2,13	<b>Science</b> HS-LS1-2
				<b>Industry Standards</b>	LE.S4.K5 HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 27</b> <b>Illness and Injury-Part 2 (Injuries and Muscles to Bones)</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>•What are musculoskeletal injuries to the body?</li> <li>•How does a CFR treat a patient with a musculoskeletal injury?</li> </ul>	<ul style="list-style-type: none"> <li>•Identification of bones</li> <li>•Examine musculoskeletal injuries</li> <li>•Explain treatments used for musculoskeletal injury</li> </ul>	<ul style="list-style-type: none"> <li>•Quiz</li> <li>•Creation of information posters on musculoskeletal problems</li> <li>•Bone identification activity</li> </ul>	<b>Career Ready Practice</b> CRP2,3,4,8,11,12	<b>Literacy</b> RST.11-12.1,4,7 WHST.11-12.2,7,8,9
				<b>Cluster Standards</b> LW 3,4	<b>ELA</b> W.11-12.2, 4 SL.11-12.1,4,6 L.11-12.2,5,6
				<b>Pathway Standards</b>	<b>Science</b>

				LW-EFM1,2,13	LE.S1.K2 HS-LS1-3 HS-LS1-3 PS.S2.K1 PS.S6.K5
				<b>Industry Standards</b>	
<b>Week 28</b>	<ul style="list-style-type: none"> <li>How does a CFR assist in emergency child delivery?</li> <li>How are babies, children and adults treated differently by a CFR?</li> </ul>	<ul style="list-style-type: none"> <li>Identify and demonstrate correct methods of emergent child delivery</li> </ul>	<ul style="list-style-type: none"> <li>Quiz on childbirth</li> <li>Practical assessment on child delivery</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,9,12	<b>Literacy</b> RST.11-12.1,4,7
<b>Childbirth and Children</b>				<b>Cluster Standards</b>	<b>ELA</b> SL.11-12.1 L.11-12.5,6
<b>Physical Training (PT)</b>				<b>Pathway Standards</b> LW-EFM1,4,9,12	<b>Science</b> HS-LS1-8 LE.S4.K4 HS-LS1-3 PS.S2.K1 PS.S6.K5
				<b>Industry Standards</b>	
<b>Week 29</b>	<ul style="list-style-type: none"> <li>What types of medical devices and equipment is the CFR responsible for?</li> <li>What are the skills needed to operate the equipment?</li> </ul>	<ul style="list-style-type: none"> <li>List and describe the types of equipment carried on an ambulance</li> <li>Describe the different levels of EMS responders</li> </ul>	<ul style="list-style-type: none"> <li>Group presentation on medical equipment, including function, how it used and other relevant information</li> <li>Flow chart illustrating skills a CFR must have to use the medical equipment</li> <li>Rank order the most to least used equipment in the job of the CFR</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,6,9,11,12	<b>Literacy</b> RST.11-12.14,7 WHST.11-12.4,6,9
<b>EMS Operations</b>				<b>Cluster Standards</b>	<b>ELA</b> W.11-12.2,4, 5,6 SL.11-12.1,4,5 L.11-12.1,2,5,6
<b>Physical Training (PT)</b>				<b>Pathway Standards</b> LW-CFM1,3,10	<b>Science</b>
				<b>Industry Standards</b>	
<b>Week 30</b>	<ul style="list-style-type: none"> <li>What are some of the most important roles of a CFR?</li> <li>What are some of the best ways for CFRs to interact with patients?</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate practical and academic knowledge in the roles and responsibilities of a CFR</li> </ul>	<ul style="list-style-type: none"> <li>CFR Certification Exam</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,11,12	<b>Literacy</b> RST.11-12.4,7
<b>Finish CFR Coursework</b>				<b>Cluster Standards</b>	<b>ELA</b> SL.11-12.1 L.11-12.5,6
<b>Physical Training (PT)</b>				<b>Pathway Standards</b> LW-EFM1,3,5,12	

				<b>Industry Standards</b>	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5
<b>Week 31-37</b>  <b>Job Search</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>•What other jobs are open to individuals with a Fire Prevention background?</li> <li>•What skills are needed?</li> </ul>	<ul style="list-style-type: none"> <li>•Compose a paper researching a fire field career path</li> <li>•Evaluate job skills needed</li> <li>•Categorize pros/cons of jobs</li> </ul>	<ul style="list-style-type: none"> <li>• Research paper on a differing career tract</li> </ul>	<b>Career Ready Practice</b> CRP1,4,11	<b>Literacy</b> RST.11-12.1-4,7,10 WHST.11-12.1,2,4,6,7,8,9,10
				<b>Cluster Standards</b> LW6	<b>ELA</b> W.11-12.2,4-8 SL.11-12.1 L.11-12.1,2,3,4,5,6
				<b>Pathway Standards</b> LW-EFM8	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5
				<b>Industry Standards</b>	
<b>Weeks 38-40</b>  <b>Review and Final Exam Prep</b>  <b>Physical Training (PT)</b>	<ul style="list-style-type: none"> <li>•Review and Final Exam</li> </ul>	<ul style="list-style-type: none"> <li>•Review cumulative content throughout the year</li> </ul>	<ul style="list-style-type: none"> <li>• Written Final Exam</li> <li>• Practical Final Exam</li> </ul>	<b>Career Ready Practice</b> CRP1,2,4,8	<b>Literacy</b> RST.11-12.1,4,7
				<b>Cluster Standards</b> LW-EFM4	<b>ELA</b>
				<b>Industry Standards</b>	<b>Science</b> HS-LS1-3 PS.S2.K1 PS.S6.K5

## B. Teacher Certification

*The self-study team reviews the teacher certification and training of the school or BOCES' instructional, paraprofessional, and support staff who deliver services within the CTE program seeking approval. New York State teacher certification review should include both CTE teachers and teachers of academic content within the proposed program.*

### Process

- Reviewers confirm that all CTE teachers hold appropriate New York State teacher certification for the program in which they will teach.
- Reviewers confirm that all teachers of academic content hold appropriate New York State teacher certification for the program in which they will teach.
- Reviewers confirm the appropriate NCLB highly-qualified status for the CTE teachers in programs offering academic credit.
- Reviewers confirm that staff delivering instruction in programs where certification, licensure, or registration by an external entity have acquired the necessary credentials.
- Reviewers confirm that professional development opportunities exist within the school district or BOCES for instructional, paraprofessional, and support staff to acquire and improve skills and knowledge related to instructional enhancement of the CTE program.

### Documentation

Recommendations from the review of teacher certification should be included in the self-study report and reviewed by the external committee. A list of all teachers for the program and the New York State teacher certification(s) held by each must be attached to the Application for Career and Technical Education Program Approval.

### Resources

New York State Office of Teaching Initiatives  
<http://www.highered.nysed.gov/tcert/certificate/certprocess.htm>

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>

Account Information

Person Information			
<b>Name</b>	ANTHONY D JARVIS	<b>SSN</b>	██████████
<b>Date of Birth</b>	██████████	<b>Teacher Id</b>	██████████
<b>Gender</b>	Male	<b>Address</b>	██

Certificates						
Credential	Status	Application Type	Issued / Effective Date	Original Exp. Date	Time Extended Exp. Date	Control Number
Emergency Medical Services 7-12, Transitional A Certificate	Issued	CERTIFICATE	05/25/2016	08/31/2019		1038559161
Social Studies 7-12, Professional Certificate	Issued	CERTIFICATE	03/02/2016			1018987161
English Language Arts 7-12, Initial Certificate	Disapproved	CERTIFICATE				
Social Studies 7-12, Initial Certificate	Expired	CERTIFICATE	09/01/2011	08/31/2016		559361111

Applications are valid for three years or two evaluations, whichever comes first.

Applications						
Credential	Cert Path	Application Type	Status	Application Date	Evaluation History	Application Paid?
<i>No Data Found</i>						

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## C. Technical Assessments Based on Industry Standards

*The self-study team reviews the selection of a technical assessment for the program seeking approval. The selected technical assessment must be nationally-recognized and based on industry standards. It must be available to students enrolled in the approved program and must consist of three parts: written, student demonstration, and student project. Successful completion of the technical assessment is not a requirement for high school graduation, but is required for a student to earn a technical endorsement on the high school diploma*

*The New York State Education Department does not approve, endorse, or certify any technical assessment.*

### Process

- The school district or BOCES selects an appropriate industry standard technical assessment to measure student proficiency in the technical field for the program. The school district or BOCES may select a New York State licensing examination as the technical assessment.
- The school district or BOCES determines the scheduling and administration of technical assessments. It is not required that the technical assessment be administered at the conclusion of the program. Parts may be administered throughout a student's learning experience.
- The school district or BOCES determines the number of times a student may take a particular technical assessment.
- The school district or BOCES must comply with existing laws and regulations related to administration of technical assessments to students with disabling conditions and provide appropriate testing modifications. Restrictions on student eligibility for testing are the responsibility of the test producer.
- In the absence of an appropriate nationally-recognized industry standard based assessment, a consortium of local, regional, state, business and industry representatives may be formed to produce such an instrument.
  - Technical assessments must meet generally recognized psychometric criteria. Therefore, the consortium approach may be expensive because of the many steps required to insure assessment validity, reliability, and security.
  - An existing CTE advisory committee or craft committee is not a technical assessment consortium. The school district or BOCES must ensure that the assessment consortium adequately represents current business and industry standards for the specific career area for the program.
- Where an appropriate technical assessment exists, but consists of only one or two parts, a consortium must be formed to develop the missing part(s).
- The school district or BOCES must develop a system to collect student-level and program-level data on performance on the technical assessment.

### Documentation

Recommendations on the technical assessment selection should be included in the self-study report and reviewed by the external committee.

### Resources

New York State graduation requirements: <http://www.emsc.nysed.gov/part100/pages/1005.html>

Information on the Technical Endorsement: <http://www.emsc.nysed.gov/cte/ctepolicy/endorsement.html>

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>



# Fire Science Course Summary

FIRE SCIENCE I IS A FOUNDATIONAL COURSE IN THE FIRE SCIENCE PATHWAY; IT IS RECOMMENDED FOR HIGH SCHOOL STUDENTS IN GRADES 11 AND 12. THE COURSE PROVIDES A BASIS FOR STUDENTS TO EARN THE BOF CERTIFICATION AFTER HIGH SCHOOL, WHEN THEY MEET MINIMUM AGE REQUIREMENTS, COMPLETE ADDITIONAL COURSEWORK, AND ARE EMPLOYED/AFFILIATED WITH THE FIRE SERVICE. THIS CLASS ALSO LAYS THE GROUNDWORK FOR STUDENTS WISHING TO PURSUE POST-SECONDARY EDUCATION IN FIRE SCIENCE. STUDENTS ENROLLED IN THIS COURSE WILL HAVE THE OPPORTUNITY TO OBTAIN AMERICAN HEART ASSOCIATION HEALTHCARE PROVIDER CPR CERTIFICATION. MAJOR COURSE TOPICS INCLUDE: ORIENTATION AND ORGANIZATION, FIRE BEHAVIOR, BUILDING CONSTRUCTION, SAFETY, COMMUNICATION, SELF-CONTAINED BREATHING APPARATUS (SCBA), EXTINGUISHERS, LADDERS, HOSE AND APPLIANCES, NOZZLES AND STREAMS, AND WATER SUPPLY.

Fire Science Assessment Blueprint							
Standard	Weighting	Test				Task Assessments	
		Number of Test Items 100-item test				Weighting	Number of Task Assessments
		Cognitive Levels			Total		
L1	L2	L3	Total				
1. <i>Orientation and Organization</i>	10%	5	4	1	10		
2. <i>Fire Behavior</i>	15%	9	4	2	15		
3. <i>Building Construction</i>	15%	12	2	1	15		
4. <i>Safety</i>	15%	14	1	0	15	10%	2
5. <i>Communications</i>	5%	4	1	0	5	10%	2
6. <i>SCBA</i>	15%	7	7	1	15	20%	4
7. <i>Extinguishers</i>	5%	5	0	0	5	10%	2
8. <i>Ladders</i>	5%	3	1	1	5	10%	2
9. <i>Hose &amp; Appliances</i>	5%	4	1	0	5	15%	3
10. <i>Nozzles &amp; Streams</i>	5%	4	1	0	5	10%	2
11. <i>Water Supply</i>	5%	5	0	0	5		
<b>Totals</b>	<b>100%</b>	<b>72</b>	<b>22</b>	<b>6</b>	<b>100</b>	<b>100%</b>	<b>17</b>

## Fire Science Content Outline

Standard 1 – Orientation and Organization	Weighting	
	Test Items	Task Assessments
	10%	0%

### Standards

#### FS1-1.1 Identify the organization of the fire department

Essential Topics:

1. Organizational Principles:
  - a. Unity of Command (Chain of Command)
  - b. Span of Control
  - c. Division of Labor
  - d. Discipline
2. Organization charts showing (chain of command)
  - a. Fire department organizational structure
3. ICS, Incident Command System
  - a. Incident organizational structure
4. Fire Companies Functions:
  - a. Engine
  - b. Truck
  - c. Rescue Squad/Company
  - d. Brush Company
  - e. Haz-Mat
  - f. EMS
  - g. Special Rescue

#### FS1-1.2 Identify the basic firefighter's role as a member of the fire service

Essential Topics:

1. Fire Fighter Roles:
  - a. Volunteer
  - b. Paid-on-call
  - c. Career
  - d. Combination
  - e. Federal and Military
  - f. Private
2. Fire Companies Roles:
  - a. Engine
  - b. Truck
  - c. EMS
  - d. Brush Company

#### FS1-1.3 Identify the mission of the fire service

Essential Topics:

1. Fire service mission — To save lives and protect property
  - a. Saving people whose lives are threatened
  - b. Protecting the lives of firefighters involved in the incident

- c. Programs to prevent fires can help accomplish the mission
  - i. Fire prevention and code enforcement
  - ii. Public education
- 2. Tactical
  - a. Life Safety (protecting the lives of our firefighters and public) (Pets and Livestock)
  - b. Incident Stabilization
  - c. Property Conservation

**FS1-1.4 Identify the primary functions of Standard Operating Procedures / Guidelines**

Essential Topics

- 1. Policy
- 2. Procedure
- 3. Orders/Directives
- 4. S.O.P.'s

<b>Standard 2 –Fire Behavior</b>	<b>Weighting</b>	
	<b>Test Items</b> 15%	<b>Task Assessments</b> 0%

**Standards**

**FS1-2.1 Define key terminology related to Fire**

Essential Topics

- 1. Fire / Combustion
- 2. Heat
- 3. Ignition Temperature
- 4. Flammable Limits / Flammable Range
- 5. Vapor Density
- 6. Solubility (Miscibility)
- 7. Flash Point
- 8. BLEVE (Boiling Liquid Expanding Vapor Explosion)
- 9. Oxygen (Oxidizing Agent)
- 10. Oxidizer
- 11. Oxidation
- 12. Thermal Layering
- 13. Pyrolysis
- 14. Plume
- 15. Endothermic Reaction
- 16. Exothermic Reaction
- 17. Fire Triangle
- 18. Fire Tetrahedron
- 19. British Thermal Unit (BTU)
- 20. Fahrenheit (oF)
- 21. Celsius (oC)
- 22. Flameover (Rollover)
- 23. Flame Point (Fire Point)

24. Flashover
25. Lower Flammable Limit (LFL)
26. Smoke
27. Upper Flammable Limit (UFL)
28. Specific Gravity
29. Surface-to-Mass Ratio

**FS1-2.2 Identify the components of the Fire Triangle and the Fire Tetrahedron)**

Essential Topics

1. Fire Triangle
  - a. Heat
  - b. Fuel
  - c. Oxygen
2. Fire Tetrahedron
  - a. Heat
  - b. Reducing Agent (Fuel)
  - c. Oxidizing Agent (Oxygen)
  - d. Chemical Chain Reaction

**FS1-2.3 Identify the relationship of the concentration of oxygen to combustibility and life safety.**

Essential Topics:

1. Recognize that both fire and humans need oxygen for survival
2. As oxygen levels decrease, the survival of both humans and fire diminish.

**FS1-2.4 Identify the products of combustion commonly found in structure fires that create or indicate a hazard.**

Essential topics:

1. Carbon Monoxide
2. Hydrogen Chloride
3. Hydrogen Cyanide
4. Carbon Dioxide
5. Phosgene
6. Ammonia
7. Chlorine

**FS1-2.5 Identify the potential consequences of exposure to products of combustion.**

Essential Topics:

1. Heat
2. Smoke
3. Elevated temperatures
4. Decreased oxygen levels
5. Fire gases
  - a. Carbon monoxide (CO) - Toxin - impacts at cellular level binds with hemoglobin and inhibits body's use of oxygen. Accumulative effect. Requires medical intervention and time to recover.
  - b. Hydrogen Cyanide (HCN) - Toxin - impacts at cellular level. Accumulative effect. Requires medical intervention and time to recover.
  - c. Carbon dioxide (CO<sub>2</sub>) - Asphyxiate - displaces oxygen available to the

6. body. Requires quality air to recover.

**FS1-2.6 Identify the methods of heat transfer.**

Essential Topics:

1. Conduction
2. Convection
3. Radiation

**FS1-2.7 Identify the physical state of matter in which fuels are commonly found.**

Essential Topics:

1. Solid
2. Liquid
3. Gas

**FS1-2.8 Identify common fire conditions**

Essential Topics:

Fire development in a compartment

1. Incipient stage
  - a. piloted ignition
  - b. non-piloted ignition
  - c. mushrooming
2. Growth stage
  - a. thermal layering
  - b. isolated flames (ghosting)
  - c. rollover/flameover
  - d. flashover
3. Fully developed stage
4. Decay stage (hot smoldering)
  - a. ventilation controlled
  - b. back draft

**FS1-2.9 Identify the process of thermal layering as it relates to a structure fire.**

Essential Topics:

1. Thermal Layering - a tendency of gases to form into layers according to temperatures. (Also known as heat stratification and thermal balance.)
2. The hottest gases tend to be on the top layer, while cooler gases form the lower layer.
3. This takes place only within a compartment (structure fire)

**FS1-2.10 Identify how to avoid disturbing thermal layering**

Essential Topics:

1. Key terms
  - a. Thermal balance, heat stratification
  - b. Neutral plane
  - c. Inversion

2. Key concepts
  - a. Direct fire attack method
  - b. Solid fire stream, straight stream, narrow fog stream
  - c. Coordinated fire attack and ventilation effort

**FS1-2.11 Identify the development and prevention of a backdraft.**

Essential Topics:

1. Development of backdraft
  - a. Low oxygen level
  - b. High heat
  - c. High fuel concentration
  - d. Smoldering fire
2. Prevention of backdraft
  - a. Recognize warning signs
    - i. Little or no visible flame
    - ii. Grayish-yellow smoke
    - iii. Pressurized smoke
    - iv. Smoke-stained windows
    - v. Inwardly drawn smoke
    - vi. Puffing smoke
  - b. Vertical ventilation

Standard 3 – Building Construction	Weighting	
	Test Items 15%	Task Assessments 0%

**Standards**

**FS1-3.1 Identify common structural components of buildings.**

Essential Topics:

1. Arch
2. Beam
3. Girder
4. Lintel
5. Column
6. Truss
7. Joist
8. Rafter
9. Ridge beam or ridgepole

**FS1-3.2 Identify basic structural characteristics of the following types of building construction.**

Essential Topics:

1. Fire Resistive (Type I)
2. Non-Combustible (Type II)
3. Ordinary (Type III)
4. Heavy Timber (Type IV)
5. Wood Frame (Type V)

**FS1-3.3 Identify the methods of framing used in Type V construction.**

Essential Topics:

1. Post and Beam Construction.
2. Balloon Frame Construction.
3. Platform Frame Construction.
4. Lightweight Wood Frame Construction.

**FS1-3.4 Identify the components of a truss.**

Essential Topics:

1. Top Chord
2. Bottom Chord
3. Web Members
4. Gusset Plates

**FS1-3.5 Identify hazards associated with truss and lightweight construction**

Essential Topics:

1. Roof Collapse
  - a. Bowstring
  - b. Lightweight Truss Systems
2. Floor Collapse
  - a. Lightweight Truss Systems
3. Time
  - a. Limited time for fire operations.

**FS1-3.6 Identify dangerous conditions created by fire and fire suppression activities.**

Essential Topics:

1. Conditions that contribute to the spread and intensity of the fire.
  - a. Fuel Load.
  - b. Open Stairwells.
  - c. Open Floor Plans.
  - d. Wind Driven Fires.
2. Conditions that make the building susceptible to collapse.
  - a. Lightweight construction - wood and steel.
  - b. Age of building.
  - c. Weather.
  - d. Water weight - added by fire suppression operations.

**FS1-3.7 Identify indicators of building collapse**

Essential Topics:

1. Sagging Roofs or Floors
2. Leaning Exterior Walls
3. Fire Burning in Void Spaces
4. Truss Exposed to Fire
5. Steel Bar Joists Exposed to Fire
6. Plumbing Vent Pipes That Begin to Extend Up
7. Walls Out of Plumb

8. Multiple Floor Fire
9. Chimney Where the Adjoining Wall or Roof has Burned Away

**FS1-3.8 Identify the effects of the fire on the building materials**

Essential Topics:

1. Wood - loses mass as the material burns, and the loss of mass weakens the wood member until it fails.
2. Masonry - subject to spalling (fragments of concrete dislodged under heat conditions caused by fire).
3. Cast Iron - may fracture or spall when exposed to high temperatures or when heated and cooled by fire streams.
4. Steel - when heated, the steel loses strength and expands (lengthens).

**FS1-3.9 Identify the different types of wall construction**

Essential Topics:

1. Load-bearing Wall
2. Non-loadbearing Wall
3. Curtain Wall
4. Parapet Wall

**FS1-3.10 Identify the types of loads as they apply to building construction**

Essential Topics:

1. Axial Load - pass through the center of a particular section or supporting member at a right angle to the cross section of the supporting member.
2. Torsional Load - are parallel to the cross section of the supporting member, typically a column that does not pass through the long axis of the structural member.
3. Eccentric Load - are imposed on a structural member at some point other than the center section of the supporting member.
- 4.

**FS1-3.11 Identify the types of loads that can be imposed on a structure**

Essential Topics:

1. Dead Load
2. Live Load
3. Impact Load
4. Fire Load

**FS1-3.12 Identify the different types of floor construction**

Essential Topics:

1. Concrete Slab Floor
2. Terrazzo Floor
3. Dimensional Lumber Wood Joist Floor
4. Truss Floor
  - a. Wood
  - b. Steel



Standard 4 – Safety	Weighting	
	Test Items 15%	Task Assessments 10%

## Standards

### FS1-4.1 Identify the importance of physical fitness and a healthy lifestyle to performance of the duties of a firefighter

Essential Topics:

1. Physical Fitness:
  - a. More Productive
  - b. Reduce Strains and Sprains (50% FF Injuries)
  - c. Reduce Stress
  - d. Reduce Heart Attack and Stroke
2. Healthy Lifestyle:
  - a. Proper Nutrition
  - b. Proper Exercise

### FS1-4.2 Identify the responsibilities of a fire department as required by NFPA 1500, Standard on Fire Department Occupational Safety and Health Program

Essential Topics:

1. Recognize Health and Safety as Official Objectives
2. Provide Safe and Healthy Work Environment
3. Promote Safety Throughout the Fire Service
4. Create Safety and Health Policies and Procedures
  - a. Develop an Organizational Plan
  - b. Develop a Risk Management Plan
  - c. Develop a Safety and Health Policy
  - d. Define Role and Responsibilities of Members
  - e. Establish a Safety and Health Committee
  - f. Keep Records of all Job Related Accidents, Illnesses, Exposures, and Fatalities
  - g. Appoint a Department Health and Safety Officer
  - h. Develop Safety and Health related SOPs

### FS1-4.3 Identify the function of the personal protective equipment

Essential Topics:

1. Helmet - Protects the head from impact as well as from scalding water and other products of combustion.
2. Protective Hood - Protects portions of the firefighter's face, ears, and neck not covered by the helmet or coat collar from heat.
3. Protective Coat and Trousers (garments) - Protect trunk and limbs against cuts, abrasions, and burn injuries; protects from heat and cold, and provides limited protection from corrosive liquids.
4. Gloves - Protect the hands from cuts, abrasions, and burn injuries.
5. Safety Shoes or Boots (footwear) - Protect the feet from burn injuries and puncture wounds.
6. Eye Protection - Protects the wearer's eyes from hazards encountered during structural fire operations such as flying particles or liquids.

7. Hearing Protection - Limits noise-induced hearing loss when firefighters engaged in structural fire-fighting are exposed to extremely loud environments such as the use of power saws, pneumatic chisels, and gas- powered fans.
8. Self-Contained Breathing Apparatus (SCBA) (Respiratory Protection) - Protects the face and lungs from heat, smoke, and other toxic products of combustion, and airborne contaminants; also provides some eye protection.
9. Personal Alert Safety System (PASS) - Provides an audible means by which a lost, trapped, or incapacitated firefighter can be located.
- 10.

**FS1-4.4 Identify the care, maintenance, and limitations of personal protective**

Essential Topics:

1. Protective Clothing must be maintained per Manufacturer's Specifications
2. If Protective Clothing becomes contaminated, it Should Not be worn until properly laundered per the manufacturer's recommended maintenance procedure
3. Inspect and Clean PPE Regularly
4. Repair / Replace any Damage PPE
5. Clean outer shells and liners regularly to remove contamination, grime, and perspiration
6. Required to clean and dry PPE at least every six months in accordance with the manufacturer's recommendations
7. SCBA should be checked before and after each use, daily if possible, or weekly
8. SCBA Cylinder should be filled to at least 90% of capacity
9. SCBA gauges, alarms, valves should be in good condition and working properly
10. SCBA harness and hose assemblies should be in good working condition
11. SCBA PASS device should be working properly
12. Clean SCBA and Sanitize Mask after each use
- 13.

**FS1-4.5 Identify procedures for safely operating at emergency scenes**

Essential Topics:

1. Requires an Incident Management System
  - a. Most Departments Use NIMS-ICS
  - b. Must Include Risk Management Plan
  - c. Must Include Personnel Accountability System
2. Limit Emergency Operations to those that can be safely conducted by available personnel
3. Requires Rapid Intervention (RIT) for Firefighters in distress
4. Requires Rehab for Firefighters During Emergencies
5. Requires Limiting Firefighter Activities and Exposure to Violence During Civil Disturbances
6. Requires Post-Incident Analysis

**FS1-4.6 Identify the hazards related to electric, gas and water emergencies and actions that can be taken to mitigate electric, gas, and water emergencies**

Essential Topics:

1. Electric
  - a. Potential Electrical Shock Hazard
  - b. De-Energize source can help extinguish fire
  - c. Toxic fumes from burning electrical components
  - d. Alternate / Secondary Power supplies / feeds
2. Gas

- a. Potential Explosion
  - b. Ignition Source
  - c. Vapor Density (Natural Gas / LPG)
  - d. Contribute to fire intensity
3. Water
- a. Excess Water Damage
  - b. Flooding Lower Areas
  - c. Reaction with Electrical

**FS1-4.7 Identify methods for shutting off utility services to a building**

Essential Topics:

- 1. Electrical
  - a. Contact Service Provider
  - b. Utilize Maintenance Personnel
  - c. Shut Off Main Disconnect
  - d. Shut Off Main Circuit Breakers
  - e. Tag Out / Lock Out or Station a FF at Breaker Box
  - f. Pull Meter (Caution)
- 2. Gas
  - a. Contact Service Provider
  - b. Utilize Maintenance Personnel
  - c. Shut Off Main Control Valve (Usually Quarter Turn)
  - d. Shut Off Main Control Valve on Tank (LPG Tanks)
- 3. Water
  - a. Contact Service Provider
  - b. Utilize Maintenance Personnel
  - c. Shut Off Main Supply Line (Entry Point)
  - d. Shut Off Underground Valve (Curb Box - Special Wrench)

**FS1-4.8 Identify safety equipment for riding on fire apparatus and its use**

Essential Topics:

- 1. Full Protective Clothing - Donned
- 2. Restraint Devices - Seatbelts for All Personnel
- 3. Hearing Protection - Noise Levels Exceed 90 dB
- 4. Non-Enclosed Cabs Also Require:
  - a. Safety Bars or Gates
  - b. Helmet
  - c. Goggles

**FS1-4.9 Identify the components of a firefighter rehabilitation system**

Essential Topics:

- 1. Rest – During Crew Rotation
  - a. Sit Down
  - b. Check Vital Signs
  - c. Mentally Disengage from Event
- 2. Active Cooling
- 3. Hydration
- 4. Medical Monitoring

5. Nourishment

**FS1-4.10 Identify the proper use of personal accountability system at an emergency incident**

Essential Topics:

1. Written Guidelines for Tracking and Inventory of All Members at Incident
2. All Members Must Actively Participate
3. IC is Responsible for Overall Accountability and Maintain an Accountability Worksheet Throughout the Incident
4. IC must Maintain an Awareness of the Location and Function of all Assigned Companies
5. Branch / Division / Group Supervisors must Supervise and Account for All Companies under their Command
6. Company Officers are Responsible for All Company Members
7. Accountability appropriate to size and complexity of incident must be maintained through Span-of-Control Requirements
8. Access to Scene Must be Controlled
9. Department Must Adopt a Personnel Accountability System and Use it on every Emergency Incident
10. Procedures Must be Adopted for Evacuating Personnel from an area where Imminent Hazards are Found
11. Must Appoint an Incident Safety Officer

**FS1-4.11 Demonstrate the donning of the following articles of PPE as part of an ensemble in less than 60 seconds.**

Essential Topics:

1. Helmet (With face shield)
2. Hood
3. Boots
4. Gloves
5. Protective Coat
6. Protective Trousers

**FS1-4.12 Don the following articles of PPE**

Essential Topics:

1. PASS Devise (If not integrated in SCBA)
2. Eye Protection
3. Hearing Protection

**FS1-4.13 Demonstrate the proper doffing of the PPE ensemble and preparing it for reuse.**

Essential Topics:

1. Remove PPE Protective Clothing
2. Inspect PPE for damage and need for cleaning
3. Clean Equipment as needed and remove damaged Equipment from service and report to Officer, if applicable
4. Place Clothing in a Ready state.

<b>Standard 5 – Communications</b>	<b>Weighting</b>	
	<b>Test Items</b> 5%	<b>Task Assessments</b> 10%

## Standards

### FS1-5.1 Distinguish between mutual aid and automatic aid

Essential Topics:

1. Mutual Aid – Reciprocal assistance from one fire and emergency services agency to another during an emergency based upon a prearrangement between agencies involved and generally made upon the request of the receiving agency.
2. Automatic Aid – Written agreement between two or more agencies to automatically dispatch predetermined resources to any fire or other emergency reported in the geographic area covered by the agreement. These areas are generally where the boundaries between jurisdictions meet or where jurisdictional “Islands” exist.

### FS1-5.2 Identify fire department radio procedures

Essential Topics:

1. Routine Traffic:
  - a. Use Clear Text
  - b. No Open-Ended Communications
  - c. Must Always Have a Response to any Communication
  - d. Reply / Repeat any Order Communication
  - e. Clear, Calm, Moderate Voice
  - f. Avoid Excited Voice or Shouting
  - g. Concise and to the Point Communications
2. Emergency Traffic:
  - a. MADAY Emergency Communications
  - b. Stop All Communications
  - c. Clear Air Waves
  - d. LUNAR Report for MADAY
  - e. Location, Unit number, Needs/problem, Air level, Resources needed
3. Establish Evacuation Signals:
  - a. Announcement Over Radio
  - b. Audible Signals (3 Long Blasts on Air Horn)

### FS1-5.3 Demonstrate the following prescribed fire department radio procedures: Routine traffic

Essential Topics:

1. Select Proper Frequency
2. Monitor Radio Traffic until Clear
3. Hold Microphone 1 to 2 inches from Mouth at 45-degree angle
4. Depress and Hold Transmit Button until Through with Transmission
5. Announce Routine Radio Traffic
6. Release Transmit Button
7. Follow Department Routine Traffic SOPs

### FS1-5.4 Demonstrate the following prescribed fire department radio procedures: Emergency traffic

Essential Topics:

1. Select Proper Frequency
2. Hold Microphone 1 to 2 inches from Mouth at 45-degree angle
3. Depress and Hold Transmit Button until Through with Transmission
4. Announce "Emergency Traffic" for Break In Message Interrupting Air Traffic as Necessary
5. Transmit Emergency Traffic Message following Department SOPs
6. Release Transmit Button
7. Repeat Emergency Message Until Command Verifies Information Given

**FS1-5.5**

**Demonstrate the following prescribed fire department radio procedures:**

**Emergency mayday**

Essential Topics:

1. Select Proper Frequency
2. Hold Microphone 1 to 2 inches from Mouth at 45-degree angle
3. Depress and Hold Transmit Button until Through with Transmission
4. Announce "MAYDAY" for Break In Message Interrupting Air Traffic as Necessary
5. i.e... MAYDAY, MAYDAY, MAYDAY
6. Transmit Emergency Traffic Message following Department SOPs
7. Release Transmit Button
8. Repeat Emergency Message Until Command Verifies Information Given
9. After Transmitting MAYDAY Activate PASS Device and follow Dept SOPs for Positioning or Actions

**FS1-5.6**

**Demonstrate the following prescribed fire department radio procedures: Emergency evacuation signal**

Essential Topics:

1. Select Proper Frequency
2. Hold Microphone 1 to 2 inches from Mouth at 45-degree angle
3. Depress and Hold Transmit Button until Through with Transmission
4. Announce "Emergency Traffic" for Break In Message Interrupting Air Traffic as Necessary
  - a. i.e. Emergency Traffic, Emergency Traffic, Emergency Traffic
5. Transmit Emergency Traffic Message following Department SOPs
  - a. Announce "Evacuation Order / Message"
  - b. May Repeat "Evacuation Order / Message" Several Times to
6. Make Sure Everyone Hears the "Evacuation Order / Message"
7. Release Transmit Button
8. Radio Orders may also include Audible Signals such as Air Horns or Sirens
9. Command Should Request a Personnel Accountability Report (PAR) When an Evacuation Signal is Ordered, to Account for ALL Companies / Personnel

<b>Standard 6 – Self-Contained Breathing Apparatus (SCBA)</b>	<b>Weighting</b>	
	<b>Test Items 15%</b>	<b>Task Assessments 20%</b>

## Standards

### **FS1-6.1 Identify the hazardous environments requiring the use of respiratory protection**

Essential Topics:

1. Respiratory hazards
  - a. Toxic atmospheres described as immediately dangerous to life or health are known as IDLH atmospheres.
  - b. OSHA considers the interior of a burning building to be an IDLH
2. atmosphere.
3. Four common respiratory hazards associated with fires and other emergencies:
  - a. Oxygen deficiency
  - b. Elevated temperatures
  - c. Smoke
  - d. Toxic atmosphere (with and without fire)

### **FS1-6.2 Identify the physical requirements of the SCBA user**

Essential Topics:

1. Physical Factors:
  - a. Physical Condition
  - b. Agility
  - c. Facial Features
2. Medical Factors:
  - a. Neurological Functioning
  - b. Muscular/Skeletal Condition
  - c. Cardiovascular Conditioning
  - d. Respiratory Functioning
3. Mental Factors:
  - a. Adequate Training in the Equipment used
  - b. Self-confidence
  - c. Emotional Stability

### **FS1-6.3 Identify the uses and limitations of SCBA**

Essential Topics:

1. Limitations of Equipment:
  - a. limited visibility
  - b. decreased ability to communicate
  - c. increased weight
  - d. decreased mobility
2. Limitations of user (air supply)
  - a. physical condition of user
  - b. degree of physical exertion
  - c. emotional stability of user
  - d. working condition of apparatus

- e. cylinder pressure before use
- f. training/experience of user
- 3. Air management
  - a. The air supply left after low-air alarm sounds may not allow
- 4. enough time to exit.
  - a. Firefighters should comply with the accountability system in use, maintain situational awareness, and manage air supply.
  - b. The ultimate responsibility for safety rests with the firefighter. Firefighters are responsible for managing their own air supply

**FS1-6.4 Identify the components, functions, and safety features of SCBA**

Essential Topics:

- 1. Open Circuit:
  - a. Harness Assembly
  - b. Air Cylinder(s)(minutes and pressures)
  - c. Regulator (RIC/UAC)
  - d. Face piece
  - e. PASS (personal alert safety system)
- 2. Open-Circuit Airline
- 3. Closed-Circuit

**FS1-6.5 Identify the inspection procedures to be used when wearing and working with SCBA**

Essential Topics:

- 1. Cylinder pressure
- 2. All Gauges
- 3. Low-pressure Alarm
- 4. All hose connections
- 5. Face piece
- 6. Harness system
- 7. All valves
- 8. any PASS devices

**FS1-6.6 Identify safety procedures to be used when wearing and working with SCBA**

Essential Topics:

- 1. Determine need. Is there a problem?
- 2. Place left hand on face piece
- 3. Slide hand down mask - check regulator
- 4. Check air saver or "on" switch
- 5. Check by-pass or purge valve, is it open or closed?
- 6. Follow line from regulator to pressure reducer - check for problems. Is there a rip or tear in the line?
- 7. Check if cylinder valve is in open position
- 8. Check if cylinder is securely connected to high pressure line
- 9. Correct any problems found in check as you find them
- 10. If not able to correct problem, leave area at once with assistance to safe area (call for a "Mayday" and consider buddy breathing, this will be changed for different manufactures)

**FS1-6.7 Identify the emergency procedures to be used in the event of SCBA failure**



Essential Topics:

1. SOP's for AHJ, and manufacture
2. Do Not Panic
3. Conservation of Air
4. Use Radio (Mayday, location-etc.)
5. Activate PASS Device
6. Change location from IDLH to a safe area)

**FS1-6.8 Identify the methods of donning and doffing an SCBA while wearing personal protective equipment**

Essential Topics:

1. Over the Head method
2. Coat method

**FS1-6.9 Identify the techniques for exiting through a restricted opening**

Essential Topics:

1. Reduce Profile (loosen straps)
2. Dump Tank/Harness if absolutely necessary
  - a. Maintain contact/control with regulator at all times
3. Swim Technique
4. Swim Method for Entanglement

**FS1-6.10 Identify the procedure for changing a low / empty SCBA cylinder**

Essential Topics:

1. On the firefighter's back
2. Off the firefighter, on the ground

**FS1-6.11 Identify the procedures for cleaning and sanitizing an SCBA**

Essential Topics:

1. Inspect for damage
2. Harness assembly
3. Air Cylinder
4. Regulator
5. Facepiece
6. PASS devices
7. Reassemble and inspect the entire SCBA before placing back in use.

**FS1-6.12 Identify the components and purpose of an SCBA fill system**

Essential Topics:

1. Cascade system
2. Filled directly from Compressor, Air Fill Station

**FS1-6.13 Identify the operating principles of an SCBA refilling system**

Essential Topics:

1. Shielded Fill Station
2. Control Overheating of Cylinders
3. Full Cylinder, not over pressurized

**FS1-6.14 Demonstrate the donning of SCBA while wearing full protective equipment in less than 60 seconds using the over the head method.**

Essential Topics:

1. The specific SCBA manufacturer's recommendations for donning and use of the SCBA should always be followed.
2. General procedure for donning of SCBA;
  - a. position of firefighter
  - b. Open cylinder valve fully
  - c. Check cylinder and regulator pressure gauges
  - d. Grab the harness for proper lift up and over your head
  - e. Proper release of harness for proper placement on your back
  - f. Fasten all straps; chest, shoulders and then waist.
  - g. Don facepiece
  - h. Test facepiece
  - i. Don hood
  - j. connect air
  - k. Activate external PASS device
  - l. Finish donning PPE.

**FS1-6.15 Demonstrate the donning of SCBA while wearing full protective equipment in less than 60 seconds using the regular coat method.**

Essential Topics:

1. The specific SCBA manufacturer's recommendations for donning and use of the SCBA should always be followed.
2. General donning procedures:
  - a. Position yourself
  - b. Open cylinder
    - i. Listen for activation of the integrated PASS Alarm
  - c. Check cylinder and regulator pressure gauges
  - d. Grasp top of left shoulder strap of the SCBA with the left hand and raise the SCBA overhead
  - e. Guide left elbow through the loop formed by the left shoulder strap and swing SCBA around left shoulder.
  - f. Guide right arm through the loop formed by the right shoulder strap allowing the SCBA to come to rest in proper position
  - g. Fasten all straps: chest, shoulders and waist
  - h. Don facepiece: straps, proper seal and operate exhalation valve
  - i. Don hood; no exposed skin
  - j. Connect air supply to facepiece
  - k. Activate external PASS device
  - l. Finish donning PPE

**FS1-6.16 Demonstrate the donning of SCBA while wearing full protective equipment in less than 60 seconds with face piece – face piece mounted regulator.**

Essential Topics:

1. Fully extend the straps on the facepiece
2. Place your chin in the chin pocket
3. Fit the facepiece to your face, bringing the straps and/or webbing over your head
4. Tighten the lowest two straps; if there are more straps, tighten the top straps last

5. Check for proper seal
6. Put protective hood up so it covers all bare skin. Don your helmet and secure the chin strap
7. Install the regulator on your facepiece

**FS1-6.17 Demonstrate the doffing of SCBA and placing it in the ready position while wearing full protective equipment.**

Essential Topics:

1. Department's SOP and the manufacturer's recommendation.
2. Off air
3. Remove SCBA, keeping control of the regulator, (in front of you)
4. Close cylinder valve completely
5. Bleed air from system
6. Check air cylinder pressure, replace if 90% or less rated capacity
7. Return all straps, valves and components back to ready state
8. Inspect SCBA and facepiece for damage
9. Clean equipment as needed and remove damaged equipment from service, and report to company officer
10. Place SCBA back in the proper storage area, for immediate use

**FS1-6.18 Demonstrate and document the cleaning and sanitizing of SCBA components.**

Essential Topics:

1. Prepare cleaning solution, buckets, etc. per manufacturer's guidelines and departmental policies
2. Clean all the SCBA components separately
3. After equipment is clean, inspect for damage, repair the damage and/or replace
4. Place all components in a manner and location so that they can dry
5. Reassemble all SCBA components, placing them in a state of readiness

**FS1-6.19 Demonstrate the inspection procedures for the main components of SCBA.**

Essential Topics:

1. Identify all components of the SCBA are present:
2. Inspect all components of SCBA for cleanliness and damage
3. Immediately clean dirty components if found. If damage remove from service and report to an officer.
4. Check that cylinder is full (90-100% of capacity)
5. Open the cylinder valve slowly; to verify operation of the low-air alarm and absence of audible air leaks
6. If air leaks are detected; determine corrections needed or if malfunction the SCBA shall be removed for service
7. Check all pressure gauges and/or indicators (i.e. heads-up display) are providing similar pressure readings ( check with manufacturers' guidelines)
8. Check the function of all modes of PASS device
9. Don facepiece; to check for seal and operate the exhalation valve
10. Don regulator and check function by taking normal breaths
11. Check bypass and/or purge valve
12. Remove facepiece and prepare all the components of SCBA for immediate reuse

**FS1-6.20 Demonstrate the use of the SCBA in conditions of obscured visibility.**

Essential Topics:

1. Remain low, better your visibility; crawling, and if firefighter can see the floor a crouched or "duck" walk.
2. Check the environment and closely monitor conditions for change, use of thermal imaging technology, also probing with a tool.
3. Never remove the facepiece
4. Maintain an awareness of location
5. Ventilate as you advance, if condition will allow
6. Check for outside openings; windows and doors (may provide means of escape)
7. Always maintain direct contact with your team and/or partner at all times, this can be done by use of a tag line between firefighters.
8. Never enter a hostile environment alone

**FS1-6.21 Demonstrate the following emergency procedures to be used in the event of SCBA failure: Use of emergency bypass or purge valve.**

Essential Topics:

1. Location of SCBA by-pass and/or purge valve
2. Don SCBA and facepiece
3. Use as directed by the manufacturer of SCBA
4. Operate by-pass and/or purge valve
  - a. using both hands, one at a time
  - b. using both hands, one at a time with eyes closed

**FS1-6.22 Demonstrate the following emergency procedures to be used in the event of SCBA failure: Conservation of air.**

Essential Topics:

1. Don SCBA and facepiece, On Air
2. Follow dept. SOP's for this situation
3. Do not panic
4. Control breathing
  - a. In through your nose and out your mouth
  - b. Crack your by-pass and/or purge valve for a short time
  - c. Alert your partner that you have a problem

**FS1-6.23 Demonstrate the following emergency procedures to be used in the event of SCBA failure: RIC / UAC.**

Essential Topics:

1. RIC/UAC Rapid intervention team/Universal Air Connection
2. Filling unshielded cylinders while a firefighter is wearing the SCBA is prohibited. However, a Rapid intervention crew/team (RIC/RIT) rescuing a trapped or incapacitated firefighter may be granted an exception to this rule.
3. The following three criteria must be met before filling a worn SCBA:
  - a. NIOSH-approved RIC Universal Air Connection (UAC) fill option are used
  - b. A risk assessment has been conducted to limit safety hazards and ensure that necessary equipment is fully operational.
  - c. There is an imminent threat to the safety of the downed
4. firefighter, and immediate action is required to prevent loss of life or serious injury.

**FS1-6.24 Demonstrate techniques for maximizing the use of the air capacity of a SCBA under work conditions**

Essential Topics:

1. Know your SCBA
2. Train with your SCBA
3. Know your work time, allowing for entry and exit time
4. Know that the standard rate for consumption for a typical adult under low exertion
5. Perform an Air Consumption test, to help with job/task efficiency
6. Know your personal limits and when to ask for help
7. Knowing your "point of no return"
8. Always remain calm, control your breathing rate (in through your nose and out your mouth), taking shallow breaths.

**FS1-6.25 Demonstrate the use of SCBA in exiting through areas with restricted openings in emergency situations: Shifting.**

Essential Topics:

1. Don SCBA and facepiece, On Air
2. Check opening with your hand
3. Change your body position, rotate your body 45 degrees try again
4. Loosen right shoulder strap
5. Loosen waist strap
6. Shift their tank to your left shoulder, this will REDUCE PROFILE
7. On through with right shoulder first

**FS1-6.26 Demonstrate the use of SCBA in exiting through areas with restricted openings in emergency situations: Dumping.**

Essential Topics:

1. Don SCBA and Facepiece, ON Air
2. Check opening with your hand
3. If nothing works to exit restricted opening, then "Dump Tank"
4. Firefighter rolls to your left side
5. Loosens right shoulder strap, loosen and remove waist strap
6. Roll out of the SCBA completely
7. Rotate the SCBA so that the cylinders valve is facing away from the firefighter
8. All straps need to be collected on top of the SCBA neatly, to aid in redonning
9. The firefighter should then move with the SCBA in front but keeping it close to the body to protect it and prevent the facepiece from being pulled off.
10. The firefighter should NEVER lose contact with the SCBA
11. Know your surroundings
12. When clear of the obstacle, the firefighter can redon the SCBA by laying out the straps and rolling back into the SCBA

**FS1-6.27 Demonstrate an air cylinder exchange while the SCBA is worn by a firefighter.**

Essential Topics:

1. Don the SCBA and Facepiece, On Air
2. Firefighter On Air will lean forward in a stable position (hands on your knees)
3. Firefighter will disconnect the regulator from the facepiece
4. You will close the cylinder valve, fully
5. Firefighter will release the air pressure from the high and low pressure hose

6. You will disconnect the high-pressure line from the cylinder
7. You will loosen the cylinder strap, remove empty cylinder from harness assembly
8. You will inspect replacement cylinder to ensure the cylinder is 90-100 % of rated capacity
9. You place new cylinder in harness assembly
10. You check the cylinder valve opening and the high-pressure hose fitting for debris
11. You will connect high pressure line to the cylinder
12. You will slowly open cylinder valve fully, listen for audible alarm and leaks
  - a. (on some SCBA's an audible does not sound, know your equipment)
13. Firefighter will don regulator and take normal breaths
14. Firefighter will check the pressure on the remote gauge and/or indicators

**FS1-6.28 Demonstrate an air cylinder exchange while the SCBA is not worn by a firefighter.**

Essential Topics:

1. Place SCBA on a firm surface
2. Close cylinder valve
3. Bleed off air pressure from high- and low-pressure hoses
4. Disconnect high pressure coupling from the cylinder
5. Remove the empty cylinder from harness assembly
6. Verify the replacement cylinder is 90-100% of rated capacity
7. Check cylinder valve opening and high pressure hose fitting for debris
8. Place the new cylinder into the harness assembly
9. Connect the high-pressure hose to the cylinder
10. Slowly open cylinder valve fully, listen for audible alarm and leaks
  - a. (on some SCBA's an audible does not sound, know your equipment)
11. If air leaks are detected, determine if connections need to be tightened or if valves, donning switch, etc. need to be adjusted. Otherwise SCBA with audible leaks due to malfunction shall be removed from service, tagged, and reported.

**FS1-6.29 Demonstrate the procedures for refilling SCBA cylinders from a Cascade System.**

Essential Topics:

1. Check with manufacturers' procedures for this activity, for your equipment
2. Check the hydrostatic test date of the cylinder that is to be filled
3. Inspect the SCBA cylinder for damage, such as deep nicks, cuts, gouges, or discoloration from heat. Place the SCBA cylinder in a fragment-proof fill station
  - a. If damaged or out of hydrostatic test date, remove it from service and tag it for future inspection and hydrostatic testing.
  - b. NEVER attempt to fill a cylinder that is damaged or that is out of hydrostatic test date.
4. Place the SCBA cylinder in a fragment-proof fill station
5. Connect the fill hose to the cylinder and close bleed valve on fill hose
6. Open the SCBA cylinder valve
7. Open the valve at the fill hose, the valve at the cascade system manifold, or the valve at both locations if the system is so equipped
8. Open the valve of the cascade cylinder that has the least pressure but that has more than the SCBA cylinder
9. Close the cascade cylinder valve when the pressure of the SCBA and the cascade cylinder equalize
10. Close the valve or valves at the cascade system manifold and/or fill line
  - a. if the system if so equipped

11. Close the SCBA cylinder valve
12. Open the hose bleeder valve to bleed off excess pressure between the cylinder valve and the valve on the hose
  - a. (FAILURE to open the hose bleeder valve could result in O-ring damage)
13. Disconnect the fill hose from the SCBA cylinder
14. Remove the SCBA cylinder from the fill station
15. Return the SCBA cylinder to proper storage

**FS1-6.30 Demonstrate the procedures for refilling SCBA cylinders from a compressor/purifying system.**

Essential Topics:

1. Check with manufacturers' procedures for this activity, for your equipment
2. Check the hydrostatic test date of the cylinder that is to be filled
3. Inspect the SCBA cylinder for damage, such as deep nicks, cuts, gouges, or discoloration from heat. Place the SCBA cylinder in a fragment-proof fill station
  - a. If damaged or out of hydrostatic test date, remove it from service and tag it for future inspection and hydrostatic testing.
  - b. NEVER attempt to fill a cylinder that is damaged or that is out of hydrostatic test date.
4. Place the SCBA cylinder in a fragment-proof fill station
5. Connect the fill hose to the cylinder and close bleed valve on fill hose
6. Open the SCBA cylinder valve
7. Turn on the compressor/purifier and open the outlet valve
8. Set the cylinder pressure adjustment on the compressor (if applicable) or manifold to the desired full-cylinder pressure.
9. Open the manifold valve (if applicable), and again check the fill pressure
10. Open the fill station valve and begin filling the SCBA cylinder
11. Close the fill station valve when the SCBA cylinder is full
12. Close the SCBA cylinder valve
13. Open the hose bleed valve to bleed off excess pressure between the cylinder valve and the valve on the fill station
  - a. (FAILURE to open the hose bleeder valve could result in O-ring damage)
14. Disconnect the fill hose from the SCBA cylinder
15. Remove the SCBA cylinder from the fill station
16. Return the SCBA cylinder to proper storage

<b>Domain 7 – Extinguishers</b>	<b>Weighting</b>	
	<b>Test Items</b> 5%	<b>Task Assessments</b> 10%

**Standards**

**FS1-7.1 Identify the system used to classify fire extinguishers including symbols and pictograms**

Essential Topics:

1. Class Name
  - a. Ordinary Combustibles
  - b. Flammable and Combustible Liquids and Gasses

- c. Electrical
- d. Combustible Metals
- e. Kitchen
- 2. Letter Symbol
  - a. Green Triangle
  - b. Red Square
  - c. Blue Circle
  - d. Yellow Star
  - e. Black Hexagon
- 3. Image Symbol
  - a. Trash Can
  - b. Flammable Liquid Container
  - c. Electrical Outlet
  - d. Machining Gear
  - e. Frying Pan
- 4. Description
  - a. Wood, paper, plastic
  - b. Hydrocarbon and alcohol based liquids and gasses
  - c. Energized electrical equipment
  - d. Magnesium, potassium, etc.
  - e. Cooking oils

**FS1-7.2**

**Identify the portable extinguisher rating system**

Essential Topics:

- 1. Class A
  - a. Agent
  - b. Duration
  - c. Range
  - d. Test Fires
  - e. 1A-40A
- 2. Class B
  - a. Based on Square Footage b. 1B-640B
- 3. Class C
  - a. Comprised of A or B Fires
  - b. Rating confirms non-conductivity
  - c. Assigned in addition to rating for class A or B
- 4. Class D
  - a. Varies with type of metal being tested
  - b. No numerical rating
  - c. No multi-purpose rating
- 5. Class K
  - a. Saponification
  - b. Capable of extinguishing a minimum surface area of 2.25 square feet
- 6. Multiple Marking
  - a. Suitable for more than one class of fire
  - b. Three most common combinations
    - i. Class A-B-C
    - ii. Class A-B
    - iii. Class B-C



- c. Ratings are independent

**FS1-7.3 Identify the types of fire extinguishers**

Essential Topics:

1. Pump-Type Water Extinguishers
2. Stored-Pressure Water Extinguishers
3. Wet Chemical Stored-Pressure Extinguishers
4. Aqueous Film Forming Foam (AFFF) Extinguishers
5. Clean Agent Extinguishers
6. Carbon Dioxide Extinguishers
7. Dry Chemical Extinguishers
8. Handheld Units
9. Wheeled Units

**FS1-7.4 Identify the appropriate extinguisher and its application technique for various classes of fire**

Essential Topics:

1. Selection Factors
  - a. Classification
  - b. Rating
  - c. Hazards
  - d. Atmospheric conditions
  - e. Life hazards
  - f. Ease of handling extinguisher
  - g. Availability of trained personnel
2. Using Portable Fire Extinguishers
  - a. Operational Check
  - b. External condition
    - i. Hose/nozzle
    - ii. Weight
    - iii. Pressure gauge
  - c. PASS method of Application

**FS1-7.5 Demonstrate the extinguishment of the following classes of fires using the appropriate portable fire extinguisher: Class A**

Essential Topics:

1. Size-up fire
2. Pull pin of extinguisher to break inspection band
3. Test to ensure proper operation
4. Carry extinguisher to within stream reach of fire
5. Aim nozzle toward base of fire
6. Discharge extinguishing agent and sweep slowly back and forth across entire width of fire
7. Cover entire area with agent until fire is completely extinguished
8. Back away from the fire area
9. Tag extinguisher for recharge and inspection

**FS1-7.6 Demonstrate the extinguishment of the following classes of fires using the appropriate portable fire extinguisher: Class B**

Essential Topics:

1. Size-up fire
2. Pull pin of extinguisher to break inspection band
3. Test to ensure proper operation
4. Carry extinguisher to within stream reach of fire
5. Aim nozzle toward base of fire
6. Discharge extinguishing agent and sweep slowly back and forth across entire width of fire avoiding splashing liquid fuels
7. Cover entire area with agent until fire is completely extinguished
8. Back away from the fire area
9. Tag extinguisher for recharge and inspection

Standard 8 – Ladders	Weighting	
	Test Items 5%	Task Assessments 10%

**Standards**

**FS1-8.1 Identify the primary materials used in the construction of ladders**

Essential Topics:

1. Metal Ladders
2. Wood Ladders
3. Fiberglass Ladders

**FS1-8.2 Identify the components of a ladder**

Essential Topics:

1. Beam
2. Bed Section (base section)
3. Butt (heel or base)
4. Butt Spurs
5. Dogs (see Pawls)
6. Fly Section
7. Foot Pads
8. Guides
9. Halyard
10. Heat-sensor Label
11. Heel (see Butt)
12. Hooks
13. Locks (see Pawls)
14. Main Section (bed or base section)
15. Pawls (dogs or ladder locks)
16. Protection plates
17. Pulley
18. Rails
19. Rungs
20. Shoes (see footpads)

21. Stops
22. Tip (top)
23. Truss block

**FS1-8.3 Identify techniques for safe ladder operations**

Essential Topics:

1. Develop and maintain adequate upper body strength
2. Wear a full body harness with belay line when training on ladders
3. Operate ladders according to departmental training and procedures
4. Wear protective gear, including gloves and helmet, when working with ladders
5. Choose the proper ladder for the job and load the ladder
6. Use leg muscles, not back or arm muscles, when lifting ladders below the waist
7. Use an adequate number of firefighters for each carry and raise
8. Do not raise any ladders to within 10 feet of electrical wires
9. Check ladder placement for the proper angle
10. Be sure that the hooks of the pawls are seated over the rungs
11. Be sure that the ladder is stable before climbing
12. Be careful when moving ladders sideways
13. Heel the ladder or secure it at the top
14. Climb smoothly and rhythmically
15. Do not overload the ladder
  - a. One firefighter every 10 feet
  - b. One per section
16. Tie in to ground ladders with a leg lock or ladder belt when working from the ladder
17. Do not relocate a positioned ladder unless ordered to do so
18. Use ladders for their intended purposes only
19. Inspect ladders for damage and wear after each use

**FS1-8.4 Identify the types of ladders**

Essential Topics:

1. Single Ladders (wall or straight ladders)
2. Roof Ladders (single ladder equipped with folding hooks)
3. Folding Ladders (Attic Ladders)
4. Extension Ladders
5. Pole Ladders (Bangor Ladders)
6. Combination Ladders
7. Pompier Ladders (scaling ladders)

**FS1-8.5 Identify the use of common types of ladders**

Essential Topics:

1. Single Ladders (wall or straight ladders)... Used for quick access to windows and roofs on one- and two-story buildings
2. Roof Ladders (single ladder equipped with folding hooks)... Used to anchor the ladder over the ridge of a pitched roof so that a firefighter may stand on the ladder for roof work (distributes the firefighter's weight and helps prevent slipping)
3. Folding Ladders (Attic Ladders)... Used for interior attic access
4. Extension Ladders... Used where a specific length adjustment is needed to
  - a. access windows and roofs
5. Pole Ladders (Bangor Ladders)... Used when desired length exceeds the reach of standard extension ladders (40 feet or longer)

6. Combination Ladders... Used as a self-supporting step ladder (A-frame) and as a single or extension ladder
7. Pompiers Ladders (scaling ladders)... Used to climb from floor to floor, via exterior windows, on a multistory building

**FS1-8.6 Identify the selection process for using ladders**

Essential Topics:

1. Key concepts
  - a. The base of the ladder should be placed away from the building approximately one-quarter of the vertical distance from the ground to the point of contact with the wall
  - b. Typically, a residential story averages about 10 feet, and the distance from the floor to the windowsill averages about 3 feet
  - c. Typically, a commercial story averages about 12 feet, and the
  - d. distance from the floor to the windowsill averages about 4 feet
  - e. When laddering to the roof, extend the ladder (three to five rungs) above the roof edge
  - f. Place the tip of a ladder about even with the top of the window and to the windward side to gain access to a narrow window or for ventilation
  - g. Place the tip of the ladder just below the windowsill for rescue
  - h. For lengths of 35 feet or less, reach is approximately 1 foot less than the designated length
  - i. For lengths over 35 feet, reach is approximately 2 feet less than
  - j. the designated length
2. General selection guidelines
  - a. First-story roof... 16 to 20 foot ladder
  - b. Second-story window... 20 to 28 foot ladder
  - c. Second-story roof... 28 to 35 foot ladder
  - d. Third-story window or roof... 40 to 50 foot ladder
  - e. Fourth-story roof... over 50 foot ladder

**FS1-8.7 Demonstrate selecting the following ground ladder based upon a given situation: Folding, roof, straight, extension, combination**

Essential Topics:

1. Selection dependent upon the following:
  - a. Estimating height of window
  - b. Estimating height of roofline
2. Placement affects size and type selection
  - a. Tip must extend 5 rungs above roofline
  - b. Ladders for window access must be longer than those for rescue
  - c. Tip at ledge for rescue
  - d. Tip even with top of window for access
  - e. Need for deployment on roof or for interior attic access
  - f. Roof ladders provide a means of anchoring ladder on roof ridge
  - g. Folding ladders can be carried in narrow passageways and
  - h. deployed in scuttle holes or small rooms

**FS1-8.8 Demonstrate the one firefighter from an apparatus carry.**

Essential Topics:

1. Ladder is mounted in bracket.
2. Center of ladder is located.
3. Fire fighter places an arm between two rungs of the ladder just to one side of middle rung.
4. Beam of ladder is lifted and rested on shoulder.
5. Ladder is carried butt end first.

**FS1-8.9 Demonstrate the one firefighter from the ground carry.**

Essential Topics:

1. Ladder is standing on beam.
2. Center of ladder is located.
3. Fire fighter places an arm between two rungs of the ladder just to one side of middle rung.
4. Beam of ladder is lifted and rested on shoulder.
5. Ladder is carried butt end first.

**FS1-8.10 Demonstrate the two-firefighter method – low should carry from the flat racking.**

Essential Topics:

1. Ladder is mounted in Flat Racked compartment.
2. Both fire fighters are positioned on same side and face the compartment.
3. Firefighters Slide the ladder out of the compartment (usually from the rear of the vehicle)
4. Firefighters will position themselves one near the butt and one near the tip (to position for carrying ladder).
5. Both fire fighters place one arm between two rungs of ladder and on command lift the ladder onto their shoulders.
6. Ladder is carried butt first
7. Fire fighter at butt covers spur with gloved hand.

**FS1-8.11 Demonstrate the two-firefighter method – low shoulder carry from vertical racking.**

Essential Topics:

1. Ladder is mounted in bracket.
2. Both fire fighters are positioned on same side and face the butt end.
3. Both fire fighters place one arm between two rungs of ladder and on command lift the ladder onto their shoulders.
4. Ladder is carried butt first
5. Fire fighter at butt covers spur with gloved hand.

**FS1-8.12 Demonstrate the two-firefighter suitcase carry.**

Essential Topics:

1. Ladder is placed on ground on beam.
2. Both fire fighters are positioned on same side and face the butt end.
3. Both reach down and grasp the upper beam of the ladder.
4. On command, both pick up ladder carry it , butt forward, at arm's length.
5. Fire fighter at butt covers spur with gloved hand.

**FS1-8.13 Demonstrate the three-fighter method – flat shoulder carry from the ground.**

Essential Topics:

1. Ladder is placed flat on ground.

2. Two fire fighters stand on one side of ladder at butt and tip ends.
3. The third fire fighter is positioned on opposite side at middle of ladder.
4. All face tip end.
5. All bend down and grasp closest rung at arm's length.
6. On command, all pick up ladder and pivot toward butt when ladder reaches chest height.
7. Ladder beam is placed on shoulders.

**FS1-8.14 Demonstrate the three-firefighter arm's length method – flat carry.**

Essential Topics:

1. Ladder is placed flat on ground.
2. Two fire fighters stand on one side of ladder at butt and tip ends.
3. The third fire fighter is positioned on opposite side at middle of ladder.
4. All face butt end.
5. All bend down and grasp closest rung at arm's length.
6. On command, all pick up ladder and carry it at arm's length.
7. Fire fighter at butt covers spur with gloved hand.

**FS1-8.15 Demonstrate the three-firefighter suitcase carry.**

Essential Topics:

1. Ladder is placed on beam on ground.
2. All Fire fighters are on same side.
3. A firefighter is positioned at the butt, tip and middle of ladder.
4. All face butt end.
5. All bend down and grasp upper beam of ladder.
6. On command, all pick up ladder and carry it at arm's length.
7. Fire fighter at butt covers spur with gloved hand.

**FS1-8.16 Demonstrate the four-firefighter arm's length – flat carry.**

Essential Topics:

1. Bed section of ladder is flat on ground.
2. Fire fighters stand at corners on each side of ladder, two at tip and two at butt.
3. All fire fighters face butt end.
4. On leader's command, all kneel and grasp the closest rung at arm's length.
5. On command, all pick up ladder and carry butt end forward.
6. Spur is covered by fire fighters at tip with gloved hand.

**FS1-8.17 Demonstrate the four-firefighter flat shoulder carry.**

Essential Topics:

1. Bed section of ladder is flat on ground.
2. Fire fighters stand at corners on each side of ladder, two at tip and two at butt.
3. All fire fighters face tip end.
4. On leader's command, all kneel and grasp the closest rung at arm's length.
5. On command, all stand, raising the ladder.
6. As ladder reaches chest height, all pivot and face butt end.
7. Ladder is placed on shoulders.
8. Spur is covered by fire fighters at tip with gloved hand.

**FS1-8.18 Demonstrate the roof ladder carry and raise.**

Essential Topics:

1. Ladder carried to desired work area.
2. Hooks are deployed.
3. Ladder is faced outward against ground ladder.
4. Fire fighter climbs ladder until shoulder is midpoint of the roof ladder.
5. Fire fighter reaches through rungs.
6. Roof ladder is hoisted onto shoulder.
7. Fire fighter climbs to top of ladder.
8. Use appropriate method of securing to ladder.
9. Roof ladder removed from shoulder.
10. Ladder is pushed hand-over-hand on beam onto roof and hooks away from ground ladder
11. Ladder is pushed up roof with hooks down until edge of peak is cleared.

**FS1-8.19 Demonstrate the one firefighter extension ladder raise.**

Essential Topics:

1. Work area visually inspected.
2. Ladder butt lowered to ground – butt spurs against wall.
3. Fire fighter positions to raise ladder.
4. Ladder raised hand-over-hand until parallel against wall.
5. Ladder butt positioned for correct climbing angle.

**FS1-8.20 Demonstrate the two-firefighter extension ladder raise.**

Essential Topics:

1. Butt end is placed on ground by firefighter 1
2. Firefighter 2 rests ladder beam on shoulder.
3. Ladder is heeled on bottom rung by firefighter 1.
4. Rung or beam is grasped from crouching position by firefighter 1
5. Firefighter 1 leans back
6. Firefighter 2 steps beneath the ladder.
7. Firefighter 2 grasps convenient rung with both hands.
8. Firefighter 2 advances hand-over-hand down the rungs to place the ladder in a vertical position.
9. Firefighter 1 grasps successively higher rungs as the ladder nears a vertical position.
10. Firefighter 1 and firefighter 2 face each other.
11. Ladder is heeled.
12. Firefighter 1 grasps the halyard.
13. Firefighter 1 extends the fly section with a hand-over-hand method until ladder tip reaches desire elevation.
14. Firefighter 2 grasps the beams
15. Both firefighters lower the ladder against building at correcting climbing angle.
16. The halyard is tied off.

**FS1-8.21 Demonstrate the two-firefighter extension ladder raise – TIP position.**

Essential Topics:

1. Butt end is placed on ground by firefighter 1
2. Firefighter 2 rests ladder beam on shoulder.
3. Ladder is heeled on bottom rung by firefighter 1.
4. Rung or beam is grasped from crouching position by firefighter 1

5. Firefighter 1 leans back
6. Firefighter 2 steps beneath the ladder.
7. Firefighter 2 grasps convenient rung with both hands.
8. Firefighter 2 advances hand-over-hand down the rungs to place the ladder in a vertical position.
9. Firefighter 1 grasps successively higher rungs as the ladder nears a vertical position.
10. Firefighter 1 and firefighter 2 face each other.
11. Ladder is heeled.
12. Firefighter 1 grasps the halyard.
13. Firefighter 1 extends the fly section with a hand-over-hand method until ladder tip reaches desire elevation.
14. Firefighter 2 grasps the beams
15. Both firefighters lower the ladder against building at correcting climbing angle.
16. The halyard is tied off.

**FS1-8.22 Demonstrate the two-firefighter ladder beam raise – HEEL position.**

Essential Topics:

1. Ladder beam at is placed on ground at butt end by firefighter 1
2. Firefighter 2 rests ladder beam on shoulder.
3. Ladder is heeled on butt spur by firefighter 1.
4. Upper beam is grasped by firefighter 1. Back leg is extended for counter balance.
5. Firefighter 2 advances hand-over-hand down the beam toward the butt end to place the ladder in a vertical position.
6. The ladder is pivoted to position the fly section toward the structure for wooden ladders, away from the structure for metal ladders.
7. The halyard is used to extend the ladder to the desired elevation.
8. Both firefighters lower the ladder against building at correct climbing angle.
9. The halyard is tied off.

**FS1-8.23 Demonstrate the two-firefighter ladder beam raise – TIP position.**

Essential Topics:

1. Ladder beam at is placed on ground at butt end by firefighter 1
2. Firefighter 2 rests ladder beam on shoulder.
3. Ladder is heeled on butt spur by firefighter 1.
4. Upper beam is grasped by firefighter 1. Back leg is extended for counter balance.
5. Firefighter 2 advances hand-over-hand down the beam toward the butt end to place the ladder in a vertical position.
6. The ladder is pivoted to position the fly section toward the structure for wooden ladders, away from the structure for metal ladders.
7. The halyard is used to extend the ladder to the desired elevation.
8. Both firefighters lower the ladder against building at correct climbing angle.
9. The halyard is tied off. The ladder is pivoted to position the fly section toward the structure for wooden ladders, away from the structure for metal ladders.
10. The halyard is used to extend the ladder to the desired elevation.
11. Both firefighters lower the ladder against building at correct climbing angle.
12. The halyard is tied off.

**FS1-8.24 Demonstrate the three-firefighter extension ladder raise – TIP #1 position.**

Essential Topics:

1. Ladder beam at is placed on ground at butt end by firefighter 1



2. Firefighter 2 rests ladder beam on shoulder.
3. Ladder is heeled on butt spur by firefighter 1.
4. Upper beam is grasped by firefighter 1. Back leg is extended for counter balance.
5. Firefighter 2 advances hand-over-hand down the beam toward the butt end to place the ladder in a vertical position.
6. The ladder is pivoted to position the fly section toward the structure for wooden ladders, away from the structure for metal ladders.
7. The halyard is used to extend the ladder to the desired elevation.
8. Both firefighters lower the ladder against building at correct climbing angle.
9. The halyard is tied off. The ladder is pivoted to position the fly section toward the structure for wooden ladders, away from the structure for metal ladders.
10. The halyard is used to extend the ladder to the desired elevation.
11. Both firefighters lower the ladder against building at correct climbing angle.
12. The halyard is tied off.

**FS1-8.25 Demonstrate the three-firefighter extension ladder raise – TIP #2 position.**

Essential Topics:

1. Firefighter 1 is located at the ladder butt.
2. Firefighters 2 and 3 are located at the ladder tip.
3. Verify visual check of terrain and overhead obstruction prior to placement and raise.
  - a. Ladder beam at is placed on ground at butt end by firefighter 1. Firefighter 2 and 3 rest the ladder flat on their shoulders.
  - b. Ladder is heeled at butt end by firefighter 1
  - c. Firefighter 1 grasps convenient rung from crouching position.
  - d. Firefighter 1 leans back.
  - e. Firefighters 2 and 3 advance in union with outside hands on beam and inside hands on rungs toward the butt end to raise the ladder to a vertical position.
  - f. Firefighters 2 and 3 place foot against butt spur.
  - g. Ladder is stabilized by firefighters 2 and 3 with both hands on beam.
  - h. Firefighter 1 grasps halyard.
  - i. Firefighter 1 places the toe of one foot on butt spur.
  - j. Firefighter 1 uses the halyard is used to extend the ladder to the desired elevation.
  - k. All firefighters lower the ladder against building
  - l. The halyard is tied off

**FS1-8.26 Demonstrate the three-firefighter extension ladder raise – HEEL position.**

Essential Topics:

1. Firefighter 1 is located at the ladder butt.
2. Firefighters 2 and 3 are located at the ladder tip.
3. Verify visual check of terrain and overhead obstruction prior to placement and raise.
  - a. Ladder beam at is placed on ground at butt end by firefighter 1. Firefighter 2 and 3 rest the ladder flat on their shoulders.
  - b. Ladder is heeled at butt end by firefighter 1
  - c. Firefighter 1 grasps convenient rung from crouching position.
  - d. Firefighter 1 leans back.
  - e. Firefighters 2 and 3 advance in union with outside hands on beam and inside hands on rungs toward the butt end to raise the ladder to a vertical position.
  - f. Firefighters 2 and 3 place foot against butt spur.
  - g. Ladder is stabilized by firefighters 2 and 3 with both hands on beam.

- h. Firefighter 1 grasps halyard.
- i. Firefighter 1 places the toe of one foot on butt spur.
- j. Firefighter 1 uses the halyard is used to extend the ladder to the desired elevation.
- k. All firefighters lower the ladder against building at desired climbing angle.
- l. The halyard is tied off.

**FS1-8.27 Demonstrate the four-firefighter extension ladder flat raise – HEEL #1 position.**

Essential Topics:

- 1. Firefighters 1 and 2 are located at the ladder butt.
- 2. Firefighters 3 and 4 are located at the ladder tip.
  - a. Ladder beam at is placed on ground at butt end by firefighters 1and 2. Firefighters 3 and 4 rest the ladder flat at their shoulders.
  - b. Ladder is heeled at butt end by firefighter s 1 and 2.
  - c. Firefighters 1 and 2 grasp convenient rung from crouching position.
  - d. Firefighters 1 and 2 lean back.
  - e. Firefighters 3 and 4 advance in union with outside hands on beam and inside hands on rungs toward the butt end to raise the ladder to a vertical position.
  - f. All firefighters place foot against butt spur.
  - g. Ladder is stabilized by firefighters 2, 3 and 4 with both hands on beam.
  - h. Firefighter 1 grasps halyard.
  - i. Firefighter 1 places the toe of one foot on butt spur.
  - j. Firefighter 1 uses the halyard is used to extend the ladder to the desired elevation.
  - k. All firefighters lower the ladder against building at correct climbing angle.
  - l. The halyard is tied off

**FS1-8.28 Demonstrate the four-firefighter extension ladder flat raise – HEEL #2 position.**

Essential Topics:

- 1. Verify visual check of terrain and overhead obstruction prior to placement and raise.
- 2. Firefighters 1 and 2 are located at the ladder butt.
- 3. Firefighters 3 and 4 are located at the ladder tip.
  - a. Ladder beam at is placed on ground at butt end by firefighters 1and 2. Firefighters 3 and 4 rest the ladder flat at their shoulders.
  - b. Ladder is heeled at butt end by firefighter s 1 and 2.
  - c. Firefighters 1 and 2 grasp convenient rung from crouching position.
  - d. Firefighters 1 and 2 lean back.
  - e. Firefighters 3 and 4 advance in union with outside hands on beam and inside hands on rungs toward the butt end to raise the ladder to a vertical position.
  - f. All firefighters place foot against butt spur.
  - g. Ladder is stabilized by firefighters 2, 3 and 4 with both hands on beam.
  - h. Firefighter 1 grasps halyard.
  - i. Firefighter 1 places the toe of one foot on butt spur.
  - j. Firefighter 1 uses the halyard is used to extend the ladder to the desired elevation.
  - k. All firefighters lower the ladder against building at correct climbing angle.
  - l. The halyard is tied off.

**FS1-8.29 Demonstrate climbing the full length of each type of ladder**

Essential Topics:

1. Straight / Wall Ladder , Extension Ladder , Folding / Attic Ladder
  - a. Verify climbing angle
  - b. Minimize shifting/bouncing
  - c. Eyes forward
  - d. Proper Hand Placemen
  - e. Three points of contact

**FS1-8.30 Demonstrate rising and placement of a ladder for hoseline deployment.**

Essential Topics:

1. Position firefighter(s) on ladder with no more than one firefighter per ladder section
2. Firefighter operating nozzle secures to ladder with leg lock or safety harness
3. Place nozzle through rung of ladder, extending the hose at least one foot in front of firefighter's body.
4. Tie off hose with a clove hitch
5. Ensure slack is secured in the hose
6. Ensure nozzle is opened when secured
7. Ensure fire stream is directed at the designated target
8. Ensure nozzle is opened and closed slowly to prevent water hammer

**FS1-8.31 Demonstrate caring hand tools while ascending and descending a ladder.**

Essential Topics:

1. Wear full protective equipment properly
2. Check ladder for appropriate angle
3. Grasp tool securely in one hand and hold hand and tool against beam of ladder
4. Wrap other hand around beam and begin climb
5. Climb is smooth and safe
6. Maintain contact between free hand and beam by sliding tool along opposite beam

**FS1-8.32 Demonstrate working off a ladder using appropriate safety devices and methods**

Essential Topics:

1. Verify correct climbing angle.
2. Climb to desired height.
3. Select use of ladder belt OR Leg Lock
  - a. Step up one additional rung above desired height
  - b. Extend leg between rungs on opposite side where work will take place
  - c. Bend knee and bring foot back under rung and through to the climbing side of ladder
  - d. Secure foot against beam or next lower rung of ladder. Using this for support step down one rung with opposite foot.

**FS1-8.33 Demonstrate raising and placement of a ladder for window ventilation operations.**

Essential Topics:

1. Select correct raise for task at hand
2. Verify climbing angle
3. Ladder placement along side window on windward side
4. Tip of ladder set even with top of window

**FS1-8.34 Demonstrate raising and placement of a ladder for flat roof ventilation operations.**

Essential Topics:

1. Select correct raise for task at hand
2. Verify climbing angle
3. Ladder placement not blocking doors, openings, etc.
4. Tip of ladder set five rungs above roof line

**FS1-8.35 Demonstrating mounting and dismounting a ladder from and into a window.**

Essential Topics:

1. Select correct raise for task at hand
2. Verify climbing angle
3. Ladder placement not at doors, openings, etc.
4. Ensure point of entry is stable
5. Maintain 3 points of contact with ladder
6. When re-mounting utilize appropriate technique
  - a. Smoke condition - back out feet first
  - b. Better conditions sit on window sill, legs out, rolling onto ladder

**FS1-8.36 Demonstrate mounting and dismounting a ladder from and onto a roof.**

Essential Topics:

1. Select correct raise for task at hand
2. Verify climbing angle
3. Ladder placement not at doors, openings, etc.
4. Maintain 3 points of contact with ladder
5. Ensure roof is stable before shifting weight from ladder

**FS1-8.37 Demonstrate assisting a conscious victim down a ladder.**

Essential Topics:

1. Correct ladder position.
2. Ladder secured for climb
3. Victim lowered from window to rescuer on ladder
4. Victim positioned for carry
5. Rescuer and victim descend ladder

**FS1-8.38 Demonstrate the inspection procedure for ground ladders.**

Essential Topics:

1. After each use and monthly
2. Heat sensor labels
3. Rungs for damage and wear
4. Rung tightness
5. Bolts and Rivets
6. Welds
7. Beams and Rungs
8. Pawl assemblies
9. Halyard
10. Pulleys
11. Guides
12. Wooden ladders
  - a. Finish
  - b. Darkening of Varnish

- c. Deterioration
- d. Splintered parts
- e. Water damage
- f. Smooth shoes

**FS1-8.39 Demonstrate the proper procedure for cleaning a ladder.**

Essential Topics:

- 1. Soft bristle brush
- 2. Running water
- 3. Mild Soap
  - a. Tar, grease, oil
- 4. Wiped Dry
- 5. Inspect for damage during cleaning

**FS1-8.40 Demonstrate maintenance procedures for different types of ground ladders.**

Essential Topics:

- 1. Kept free from moisture
- 2. Stored away from vehicle exhaust or engine heat
- 3. Stored away from exposure to elements
- 4. Not painted
  - a. Exception is the top and bottom 18" for ID purposes

<b>Standard 9 – Hose and Appliances</b>	<b>Weighting</b>	
	<b>Test Items</b> 5%	<b>Task Assessments</b> 15%

**Standards**

**FS1-9.1 Identify the construction features of fire hose**

Essential Topics:

- 1. Materials (cotton, nylon, Rayon vinyl, Poly-mired vinyl, Polyester)
- 2. Methods (braided, wrapped, woven, hard suction)

**FS1-9.2 Identify the construction features of fire hose couplings**

Essential Topics:

- 1. Drop Forged
- 2. Extruded
- 3. Cast
- 4. Threaded
- 5. Storz

**FS1-9.3 Identify the types and sizes of fire hose**

Essential Topics:

- 1. Small Diameter Hose
- 2. Medium Diameter Hose
- 3. Large Diameter Hose

4. Intake Hose

**FS1-9.4 Identify the types and uses of hose rolls**

Essential Topics:

1. Straight Roll
2. Donut Roll
3. Twin Donut Roll
4. Self-locking Twin Donut Roll

**FS1-9.5 Identify forward and reverse lays**

Essential Topics:

1. Forward Lay
2. Reverse Lay

**FS1-9.6 Identify the appliances carried on a pumper as required by NFPA 1901, Standard for Pumper Fire Apparatus**

Essential Topics:

1. Valve
2. Wye
3. Siamese
4. Water Thief
5. Hydrant Valve
6. Fittings
7. Strainer
8. Master Stream Device
9. Foam Delivery Equipment
10. Tools

**FS1-9.7 Demonstrate major types of hose rolls.**

Essential Topics:

1. Straight Roll
2. Donut Roll
3. Twin Donut Roll
4. Self-Locking Twin Donut Roll

**FS1-9.8 Demonstrate coupling and uncoupling techniques.**

Essential Topics:

1. Single Firefighter Foot Tilt Method
2. Two Firefighter Method
3. Single Firefighter Knee Press Method
4. Two Firefighter Stiff Arm Method

**FS1-9.9 Demonstrate methods to move hoselines into position.**

Essential Topics:

1. Hose Carry / Shoulder Load (Flat or Horseshoe)
2. Hose Carry / Shoulder Load (Flat or Accordion)
3. Hose Drag Method 1
4. Hose Drag Method 2

**FS1-9.10 Demonstrate the loading and deployment of hose loads.**

Essential Topics:

1. Accordion Load
2. Horseshoe Load
3. Reverse Horseshoe Load
4. Flat Load
5. Minuteman Load
6. Dutchman

**FS1-9.11 Demonstrate the function of a hose clamp.**

Essential Topics:

1. Standard Hose Clamp
2. Field Hose Clamp Maneuver

**FS1-9.12 Demonstrate the techniques for lengthening a hoseline using the following equipment.**

Essential Topics:

1. Hose Clamp
2. Break – Apart Nozzle

**FS1-9.13 Demonstrate techniques for replacing a section of hose.**

Essential Topics:

1. Kink Method
2. Clamp Method

**FS1-9.14 Demonstrate the use of key hose appliances.**

Essential Topics:

1. 2½ inch Hydrant Valve
2. Double – Gated Reducing Leader Wye
3. Master Stream Device, 1000GPM Minimum
4. Double Male Adapter
5. Double Female Adapter

**FS1-9.15 Demonstrate advancing a charged 1 ½ inch and 2 ½ inch attack line from a pumper as a member of a hose team.**

Essential Topics:

1. Into a structure at ground level

**FS1-9.16 Demonstrate carrying an attack line into a structure.**

Essential Topics:

1. The duck walk
2. Nozzle positioning
3. Backup position
4. Door position duties during the advance

**FS1-9.17 Demonstrate the procedures for cleaning and maintaining fire hose.**

Essential Topics:

1. Visual Inspection hose and couplings
2. Wash dirty hose and dry hose

**FS1-9.18 Demonstrate the procedures for cleaning and maintaining couplings.**

Essential Topics:

1. Visual Inspection:
  - a. Look for thread damage
  - b. Look for pliable rubber gasket in female couplings
  - c. Apply silicone lubricant to the swivel

**FS1-9.19 Demonstrate connecting hoseline(s) from a fire pumper to a fire department connection**

Essential Topics:

1. Confirm Order with Officer to connect line(s) to FDC.
2. Extend hoseline from pumper discharge to the FDC with male thread toward FDC connection.
3. Lay down hose fitting at FDC, protecting male fittings.
4. Remove caps from FDC.
5. Inspect the FDC for debris, check threads, check gasket and replace if necessary.
6. Connect hose lines to the outlets. (Lowest First)
7. Tighten connections with spanner wrench.
8. Report to Officer the completion of assignment.

**FS1-9.20 Demonstrate connecting a 3 inch or smaller hose to a hydrant.**

Essential Topics:

1. As a Safety Precaution – Tighten Hydrant Caps Not used
2. Turn outlet nut counterclockwise and remove cap from one outlet
3. Connect 3 inch or smaller hose to hydrant outlet

**FS1-9.21 Demonstrate connecting a 4 ½ inch or larger soft sleeve intake hose to a hydrant.**

Essential Topics:

1. Examine hydrant
2. Remove hydrant cap and inspect threads
3. Look in nozzle(wet barrel) or barrel(dry barrel) for debris
4. Flush hydrant
5. Connect supply hose to hydrant
6. Open hydrant fully when told to do so

**FS1-9.22 Demonstrate connecting a 4 ½ inch or larger hard intake hose to a hydrant.**

Essential Topics:

1. Confirm order with officer to make hydrant connection.
2. Remove intake hose from pumper.
3. Connect the intake hose to the hydrant or apparatus (depending on local preference), turning connection clockwise and making hand tight.
4. Connect opposite end to the hydrant or apparatus, turning connection clockwise and making hand tight.

**FS1-9.23 Demonstrate advancing a 1 ½ inch and 2 ½ inch attack line from a pumper as a member of a team: to an upper floor by hoisting.**

Essential Topics:

1. Tie a closed clove hitch behind first coupling
2. Tie safety knot
3. Take a bight in the rope and pass it through the bale and over the nozzle

**FS1-9.24 Demonstrate unloading non-preconnected wyed hoseline.**

Essential Topics:



1. Hose load finishes (Reverse horseshoe load)
2. Grasp the inner fold of the load and nozzle in one hand
3. Grasp the wye appliance in the other hand
4. Step down from the tailboard and pull the hose assembly to the ground, positioning yourself in view of the driver's mirror
5. Anchor the hose assembly with one knee
6. Signal the driver to "Go"

**FS1-9.25 Demonstrate unloading a pre-connected hoseline Flat Load.**

Essential Topics:

1. Approach the bay
2. Place the larger dog ear around shoulder
3. Hold the small dog ear in one hand and the nozzle in the other hand
4. Walk away from the engine toward your destination
5. Drop the loop from your hand when it gets taut
6. Drop the loop from your shoulder when it becomes taut
7. Take the nozzle and move to your destination

**FS1-9.26 Demonstrate unloading pre-connected hoseline Minuteman.**

Essential Topics:

1. Grab entire hose bundle placing the bottom off the load and nozzle on shoulder
2. Make your way to your objective as the hose pays out with your forward progress
3. Flake out the rest of your working line
4. Call for water

**FS1-9.27 Demonstrate hand laying 300 feet of supply line (2 ½ inch or 3 inch) from a pumper to a water source utilizing two or three firefighters.**

Essential Topics:

1. FF # 1 - Attach a nozzle to the end of the hose if desired.
  - a. FF #1 - Assist other FFs with loading hose on their shoulders.
2. FF # 2 - Position on the tailboard facing the direction of travel.
3. FF # 2 - Place the initial fold of hose over the shoulder so the nozzle can be held at chest height.
4. FF # 2 - Bring the hose from behind back over the shoulder so that the rear fold ends at the back of the knee.
5. FF # 2 - Make a fold in front that ends at the knee height and bring the hose back over the shoulder.
  - a. (Repeat Step 4 & 5 until appropriate amount of hose is loaded on shoulder)
6. FF # 2 - Move forward approximately 15 feet.
7. FF # 3 - Position on the tailboard facing the direction of travel.
8. FF # 3 - Load hose onto the shoulder in the same manner as FF # 2, making knee-high folds, until an appropriate amount of hose is loaded on shoulder.
9. FF # 1 - Uncouple the hose from the hose bed, and hand the coupling to the last firefighter.

**FS1-9.28 Demonstrate inspecting couplings for damage.**

Essential Topics:

1. Visual Inspection-look for:
  - a. Damaged threads
  - b. Corrosion

- c. Slippage of the hose
- d. Swivel not rotating freely
- e. Missing lugs
- f. Loose external gasket

Standard 10 – Nozzles and Streams	Weighting	
	Test Items 5%	Task Assessments 10%

## Standards

- FS1-10.1 Define fire stream**  
Essential Topics:  
A stream of water or other extinguishing agent after it leaves a fire hose and nozzle, until it reaches the desired point
- FS1-10.2 Identify the purpose of a fire stream**  
Essential Topics:  
1. Cooling  
2. Provide Protection
- FS1-10.3 Identify the various uses of water as an extinguishing agent**  
Essential Topics:  
1. Cooling  
    a. Latent Heat of Vaporization  
2. Smothering
- FS1-10.4 Identify the types of fire stream nozzles**  
Essential Topics:  
1. Smooth Bore Nozzle  
2. Fog Nozzle  
3. Combination Nozzle
- FS1-10.5 Identify the water flow / GPM of handlines and master streams**  
Essential Topics:  
1. Fire stream classification  
    a. Low-volume stream... Less than 40 gpm  
    b. Handline stream... 40 to 350 gpm  
        i. 1 1/2" handline = 60-150 gpm  
        ii. 1 3/4" handline = 95-200 gpm  
        iii. 2 1/2" handline = 200-325 gpm  
    c. Master stream... Greater than 350 gpm  
        i. 3" supply line = 0-500 gpm  
        ii. 4" supply line = 0-1,200 gpm  
        iii. 5" supply line = 0-2,000 gpm

**FS1-10.6****Define nozzle reaction**

Essential Topics:

1. Nozzle Reaction: As water is discharged and flowing from the nozzle, an equal and opposite reaction is realized by the nozzle operator.

**FS1-10.7****Identify methods of water application**

Essential Topics:

1. Direct method of attack
2. Indirect method of attack
3. Combination method of attack

**FS1-10.8****Identify the principles of both Class A and Class B foam as an extinguishing agent**

Essential Topics:

1. Class A Foam
2. Class B Foam (Synthetic & Protein)

**FS1-10.9****Identify the methods by which foam prevents or controls a hazard**

Essential Topics:

1. Separating... Creates a barrier between the fuel and the fire
2. Cooling... Lowers the temperature of the fuel and adjacent surfaces
3. Smothering... Suppresses the release of flammable vapors reducing the
  - a. possibility of ignition or reignition
4. Penetrating... Lowers the surface tension of water and allows it to penetrate deep-seated fires

**FS1-10.10****Identify the principle by which foam is generated**

Essential Topics:

1. Key terms
  - a. Foam concentrate-Raw foam liquid before the introduction of water and air
  - b. Foam proportioned (educator)-Device that introduces foam concentrate into the water stream to make a foam solution
  - c. Foam solution-Mixture of foam concentrate and water before the introduction of air
  - d. Foam (finished foam)-Completed product after air is introduced into the foam solution
2. Key concepts
  - a. Proportioning and aeration
  - b. Foam expansion
  - c. Foam concentrates
    1. Class A
    2. Class B
    3. Special application foams
  - d. Foam Proportioning methods
    - i. Induction
    - ii. Injection
    - iii. Patch-mixing
    - iv. Premixing

- e. Foam proportions
  - i. Portable foam proportions
  - ii. apparatus-mounted proportions
  - iii. impressed-air foam Systems (CAFS)
- f. Foam delivery devices
  - i. Handline nozzles
  - ii. medium- and high-expansion foam generating devices
- g. Causes for poor-quality foam, or failure to generate foam

**FS1-10.11 Demonstrate the following methods of water application.**

Essential Topics:

1. Direct
2. Indirect
3. Combination

**FS1-10.12 Demonstrate the procedure of bleeding / purging air from a handline.**

Essential Topics:

1. Prior to entering the fire area, the nozzle must be opened fully to let the air out and to make sure the line is supplied with sufficient water flow and pressure before commencing the attack.

**FS1-10.13 Demonstrate the use of nozzles carried on a fire pumper.**

Essential Topics:

1. Smooth Bore Nozzle
2. Combination Nozzle

**FS1-10.14 Demonstrate the procedure of opening and closing a nozzle.**

Essential Topics:

1. Open nozzle away from everyone
2. Open nozzle by pulling bale toward you
3. Open nozzle all the way
4. Keep nozzle open until all the air is out of hose
5. Close nozzle by pushing bale away from you
6. Open and close nozzle slowly so you don't create a water hammer effect

**FS1-10.15 Demonstrate the procedure of adjusting the stream pattern on a fog nozzle.**

Essential Topics:

1. Open nozzle away from everyone
2. Open nozzle by pulling bale toward you
3. Open nozzle all the way
4. Keep nozzle open until all the air is out of hose
5. Close nozzle by pushing bale away from you
6. Open and close nozzle slowly so you don't create a water hammer effect

**FS1-10.16 Demonstrate the procedure of opening and closing a solid stream nozzle.**

Essential Topics:

1. The nozzle bale should be a slightly bent arm's reach out in front of the nozzle operator
2. The line should be on the side of the nozzle operators dominate arm
3. The forward, or left, hand controls flow and directs the stream

4. The forward hand controls the bale
5. Once the bale has been operated, the hand moves to the hose behind the last male hose butt
6. The hand must be in an underhand position on the hose
7. Overcome reaction force when opening the nozzle
8. Open and close the bale slowly as to not cause a water hammer

**FS1-10.17 Demonstrate the procedure of inspecting a nozzle.**

Essential Topics:

1. Clean nozzles after each use
2. Inspect nozzles after each use:
  - a. Check that the waterway is clear of obstructions
  - b. Make sure the bale works properly
  - c. Check to make sure there are no dents or nicks in the tip of the nozzle
  - d. Make sure there are no missing parts
  - e. Worn out gaskets must be replaced

<b>Standard 11 – Water Supply</b>	<b>Weighting</b>	
	<b>Test Items</b> 5%	<b>Task Assessments</b> 15%

**Standards**

**FS1-11.1 Identify the water sources and the components of a water distribution system in the local community.**

Essential Topics:

1. Ground Water:
  - a. Aquifers
  - b. Underground Rivers
  - c. Springs
2. Surface Water:
  - a. Rivers
  - b. Lakes
  - c. Ponds
3. Components of Water Distribution System:
  - a. Means of Moving Water:
    - i. Direct Pumping
    - ii. Gravity Systems
    - iii. Combination Systems
  - b. Water Treatment Facilities:
    - i. Remove Contaminants
    - ii. Filter Particulates
    - iii. Add Chlorine (Purification) (Haz-Mat)
    - iv. Add Fluoride (Prevent Tooth Decay)
4. Elevated Water Storage Tanks:
5. Distribution Systems: (Mains)
  - a. Primary Feeders
  - b. Secondary Feeders

- c. Distributors
- d. Water Main Valves:
- e. Indicating Valves:
  - i. OS&Y - Outside Stem & Yoke
  - ii. PIV - Post Indicator Valve (Open /Shut)
  - iii. Butterfly Valve
- f. Non-Indicating Valves:
  - i. Gate Valve (Number of Turns)
  - ii. Butterfly Valve

## FS1-11.2

### Identify the characteristics and operation of fire hydrants

#### Essential Topics:

1. Fire Hydrant Characteristics:
  - a. Outside Parts Cast Iron
  - b. Internal Working Parts Bronze
  - c. Valve Facings Rubber, Leather, Composite Materials
  - d. Must Open/Close Slowly to Prevent Damage
  - e. Dry Barrel Hydrant:
    - i. Prolonged Periods of Subfreezing Weather
    - ii. Main Valve located below Frost Line
    - iii. Hydrant Barrel Empty between Top and Main Valve
    - iv. Stem Nut Turned Counter Clockwise to Open Main Valve
    - v. Drain Holes are located near the bottom of the Hydrant
    - vi. Must be Fully Opened or Fully Closed to Prevent "Undermining" the Hydrant Base through the Drain Holes
  - f. Wet Barrel Hydrant:
    - i. Known as Frost-Free Hydrants
    - ii. Usually Installed in Warmer Climates
    - iii. Horizontal Compression-Type Valves on Each Outlet
    - iv. The Barrel is Always filled with Water
2. Fire Hydrant Operation:
  - a. Dry Barrel Hydrant:
    - i. Remove Caps from Ports being Used
    - ii. Inspect Hydrant and Port for Debris and Damage
    - iii. Turn Stem Nut Counter-Clockwise to begin Flow of Hydrant to Insure Flow of Water, and to Flush Hydrant
    - iv. Turn Stem Nut Clockwise to Stop Water Flow of Hydrant
    - v. Attach Supply Hose(s) to Hydrant Port(s)
    - vi. Wait for Signal to Charge Hydrant
    - vii. Fully Open Hydrant by Turning Stem Nut until Stem Nut will No Longer Turn
    - viii. To Shut Down Hydrant Turn Stem Nut Clockwise Slowly until Valve Closes and the Stem Nut No Longer Turns
    - ix. Relieve any Pressure
    - x. Remove Supply Hoses from the Port(s)
    - xi. Re-Place Caps on All Ports Except One
    - xii. Insure Water Drains from the Barrel by verifying a Vacuum is Created at the Port
    - xiii. Replace the Remaining Cap

- b. Wet Barrel Hydrant:
  - i. Remove Caps from Ports being Used
  - ii. Inspect Hydrant and Port for Debris and Damage
  - iii. Turn Stem Nut Opposite Side of Port Counter-Clockwise to begin Flow of Hydrant to Insure Flow of Water, and to Flush Hydrant
  - iv. Turn Stem Nut Opposite Side of Port Clockwise to Stop Water Flow of Hydrant
  - v. Attach Supply Hose(s) to Hydrant Port(s)
  - vi. Wait for Signal to Charge Hydrant
  - vii. Fully Open Hydrant by Turning Stem Nut Opposite Side of Port until Stem Nut will No Longer Turn
  - viii. To Shut Down Hydrant Turn Stem Nut Clockwise Slowly until Valve Closes and the Stem Nut will No Longer Turn
  - ix. Relieve any Pressure
  - x. Remove Supply Hoses from the Port(s)
  - xi. Replace All Caps on All Ports

**FS1-11.3 Identify causes of increased resistance of friction loss in water distribution systems and hydrants**

Essential Topics:

1. Pipe Diameter
2. Pipe Materials
3. Mineral Encrustation
4. Sediment
5. Partially Closed Valves
6. Dead-End Hydrants

**FS1-11.4 Identify conditions which may reduce hydrant effectiveness**

Essential Topics:

1. Main Pipe Diameter
2. Distribution System Pressure
3. Dead-End Hydrants
4. Partially Open Valves
5. Discharge Openings:
  - a. 2-1/2 Ports
  - b. Steamer Ports

**FS1-11.5 Demonstrate connecting a small intake hose to a hydrant and fully opening and closing the hydrant.**

Essential Topics:

1. As a Safety Precaution – Tighten Hydrant Caps Not used
2. Turn outlet nut counterclockwise and remove cap from one outlet
3. Connect small intake hose to hydrant outlet
4. Open the hydrant Fully
5. Close the hydrant Fully
6. Relieve pressure
7. Remove small intake hose from hydrant outlet
8. Replace cap on outlet

**FS1-11.6 Demonstrate the hydrant to pumper hose connections for forward lay.**

Essential Topics:

FF # 1

1. Grab sufficient amount of hose to reach the hydrant.
2. Step down from the tailboard and face the hydrant with all the equipment necessary to make the hydrant connection.
3. Approach the hydrant and loop the hydrant in accordance with SOPs.
4. Signal Driver/Operator to proceed driving to the fire.
5. Remove cap from hydrant.
6. Place the hydrant wrench on the valve stem operating nut.
7. Remove the hose loop from the hydrant.
8. Connect the hose to the outlet nearest the fire.
9. Open the hydrant fully when the appropriate order or signal is given.
10. Return to the apparatus, tighten leaking couplings, and push the hose toward the curb along the way.

FF # 2

1. After completing the hose lay to the scene, apply the hose clamp on the supply line 20 feet behind the apparatus.
2. Give the signal to charge the line.
3. Uncouple the hose from the bed (allowing enough hose to reach the pump inlet).
4. Connect the hose to the pump.
5. Release the hose clamp.

**FS1-11.7**

**Demonstrate the hydrant to pumper hose connections for a reverse lay.**

Essential Topics:

FF # 1

1. Pull sufficient hose to reach the intake valve on the attack pumper.
2. Anchor the hose.
3. Apply a hose clamp to the hose at the attack pumper.

FF # 2

1. After the pumper stops at the water source, make an intake hose connection.
2. Pull the remaining length of the last section of hose from the hose bed.
3. Disconnect the couplings and return the male to the hose bed.
4. Connect the supply hose to the discharge valve.

**FS1-11.8**

**Demonstrate the proper procedure for making hydrant connections for a soft sleeve or large diameter hose.**

Essential Topics:

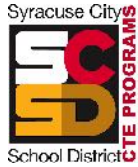
1. Confirm order with officer to make hydrant connection.
2. Remove necessary equipment from the pumper.
3. Remove the hydrant cap by turning it counterclockwise and use a spanner wrench if the cap is tight.
4. Inspect the hydrant for exterior damage and check for debris or damage in inside outlet.
5. Place the hydrant wrench on hydrant nut, with handle pointing away from outlet.
6. If Necessary - Place reducer adapter (Steamer/Storz) on hydrant, turning clockwise and making hand tight.
7. Remove intake hose from the pumper



8. Connect the intake hose to the pump intake, turning clockwise and making hand tight.
9. Stretch the intake hose to the hydrant, placing two full twists in the hose to prevent kinking.
10. Make the hydrant connection to the steamer outlet or outlet with adapter, turning clockwise and making hand tight.
11. Open the hydrant slowly until hose is full (Fully Open).
12. Tighten any leaking connections using rubber mallet or spanner wrench.

DRAFT

[Return to TOC](#)



## SCSD CTE Student Portfolio

**Definition:** Student portfolios are a collection of personal documents, which showcase an individual’s learning experiences, goals and achievements. Student portfolios are created and controlled by the student, facilitated by the instructor, and evaluated by outside entities.

**Purpose:** Students should be able to leave a program with as many tools in their toolbox as possible. Student portfolios are a way to assist students in marketing themselves in future interviews, by using the portfolio to illustrate his or her skills and/or talents.

### SCSD CTE Student Portfolio Requirements

<input type="checkbox"/>	<b>Table of Contents:</b>	This should list each section and piece of the portfolio in the order it appears
<input type="checkbox"/>	<b>Cover letter</b>	A cover letter introducing the student to a potential employer about a specific job in his or her chosen pathway. Should focus on why the student is the best candidate for the job. It should compliment the resume, not repeat it.
<input type="checkbox"/>	<b>Resume</b>	Should be professionally formatted. Usually a one-page document listing the student’s name, personal information (address, phone, and email), an objective, work history or extracurricular/community involvement, education, certifications/credentials, personal skills/interests, and references.
<input type="checkbox"/>	<b>Letters of Recommendation</b>	Students must include at least two (2) reference letters, provided by people outside the school who are familiar with his or her work or character. The reference letters can be employment-related, personal, or they can attest to the character of the student.
<input type="checkbox"/>	<b>Certifications/Credentials</b>	Students should include copies of any credentials and/or certifications they have earned as a result of their program.
<input type="checkbox"/>	<b>Transcript</b>	Student provides a copy of his or her full academic transcript.
<input type="checkbox"/>	<b>Employability Profile</b>	<p>Per NYSED: The work skills employability profile is intended to document student attainment of technical knowledge and work-related skills. Documents to validate skills reported on the profile could include, but are not limited to, an employer/teacher review of student work based on learning standards and expectations in the workplace, performance evaluations and observations.</p> <p>Students must have at least one employability profile completed within one year prior to school exit. If a student is involved in a number of work-based learning experiences and/or is employed part time, he/she may also have additional employability profiles as completed by others knowledgeable about his or her skills (e.g.,</p>

	employer and/or job coach).
<input type="checkbox"/>	<b>College Research</b> A written research assignment focusing on three colleges offering programs in the student's chosen career pathway.
<input type="checkbox"/>	<b>Career Plan</b> Per NYSED: "Career Plans are an important mechanism to add relevance and meaning to learning experiences across subject areas. The career development model used to create the Career Plan aligns with the CDOS standards." A Career Plan document can be found here: <a href="http://www.p12.nysed.gov/cte/careerplan/docs/SecondaryCommencLvl.pdf">http://www.p12.nysed.gov/cte/careerplan/docs/SecondaryCommencLvl.pdf</a>
<input type="checkbox"/>	<b>Student Awards</b> This section is completely open ended. Students should use this section to illustrate any awards, projects, exemplars, service learning, or scholarships, they participated or earned during their high school years. They can show evidence through pictures, project documentation, news articles, program agendas, meeting minutes, videos, etc.
<input type="checkbox"/>	<b>Work Samples</b> Examples highlighting <i>only the student's best work</i> , demonstrating the skills and competencies he or she has mastered. These should be presented professionally and be clearly captioned. <b>Should not be thought as a scrapbook.</b> Potential employers are only interested in the very best examples.

## D. Postsecondary Articulation

*The self-study team reviews the postsecondary articulation agreement for the program seeking approval. Postsecondary articulation agreements help students prepare for the transition from high school to advanced study in a particular career area. Articulation agreements provide direct benefits to students such as dual credits, college credits, advanced standing, or reduced tuition at a postsecondary institution. Articulation agreements may include several school districts and/or BOCES and multiple postsecondary institutions. The school district or BOCES may enter into multiple articulation agreements for a program seeking approval.*

### Process

- Reviewers confirm that the postsecondary articulation agreement is designed to prepare students for the transition from high school study to postsecondary study in the career area of the program seeking approval.
- Reviewers confirm that a postsecondary articulation agreement has been obtained that offers direct benefits to students in the program seeking approval.
- Reviewers confirm that the postsecondary articulation agreement includes the
  - prerequisite skills, knowledge, or coursework required of students to participate in the agreement
  - roles and responsibilities of each institution
  - duration of the agreement
  - endorsement by officials of each institution
- Signed articulation agreements must be on file within the school district or BOCES.

### Documentation

Documentation of the postsecondary articulation agreement is maintained by the school district or BOCES and updated whenever modifications are made. Recommendations on the technical assessment selection should be included in the self-study report and reviewed by the external committee. A copy of the signed postsecondary articulation agreement must be attached to the Application for Career and Technical Education Program Approval.

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>

**Articulation Agreement**  
**between**  
**Syracuse City School District (SCSD)**  
**725 Harrison St, Syracuse, NY**  
**and**  
**Onondaga Community College**  
**4585 West Seneca Turnpike, Syracuse, NY**

The signatories of this articulation agreement, Syracuse City School District (SCSD) and Onondaga Community College (OCC), declare their intention to participate in a partnership for the purpose of delivering educational instruction to eligible students. The parties to this agreement have reached the following understanding:

**1. Term**

The term of this agreement shall be for four years from July 1, 2017-June 30, 2021 and subject to the following conditions:

- Both parties have the option to extend this Agreement for one (1) additional four year period giving written notice to the College no later than ninety (90) days prior to the expiration date.

**2. Modification and Waiver**

No waiver or modifications shall be valid unless it is in writing and signed by OCC and SCSD.

**3. Curriculum and Courses**

- Students who have enrolled in the Fire/Rescue program at Syracuse City School District will be eligible to enroll in courses and earn credit for:
  - ENG 103 and ENG 104: Freshman Composition and Literature I and II, subject to an annual Memorandum of Understanding and the identification of an OCC faculty member to teach the course on-premises at the Public Service Leadership Academy at Fowler High School; and;
  - CIS 100, Information and Computer Literacy, through the Onondaga Community College, College Credit Now Program.
- The above courses offered through the OCC College Credit Now Program are required for the Emergency Management, A.A.S. degree at OCC.
- Tuition for concurrent enrollment courses will be incurred according to all applicable requirements in place by the State University of New York. For courses taught by Onondaga Community College faculty, the Syracuse City School District will additionally incur the cost set by annual Memorandum of Understanding between SCSD and OCC.
- Students will be assisted in the course registration process by OCC. Students will also be supported in the admission process to Onondaga Community College through a specialized workshop and the Office of Student Recruitment.

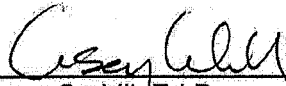
**4. Students**


Each student must enroll and remit payment as required by SUNY for the course(s) with OCC through the College Credit Now registration process as

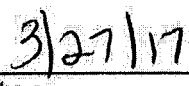
directed by the Director of Concurrent Enrollment and Secondary School Programs.

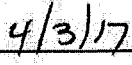
**5. Entire Agreement**

This Agreement Constitutes the entire Agreement between the College and SCSD with respect to the subject matter hereof. This Agreement supersedes any and all other agreements, whether oral or in writing, between parties with respect to the subject matter hereof.

  
\_\_\_\_\_  
Casey Crabill, Ed.D.  
President  
Onondaga Community College

  
\_\_\_\_\_  
Jaime Alicea  
Superintendent  
Syracuse City School District

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Date

## Articulation Agreement

Between

SUNY Broome Community College, Criminal Justice & Emergency Services Department, PO Box 1017, Binghamton, New York 13902

And

Syracuse City School District, 725 Harrison Street, Syracuse, NY 13204

- Articulation agreements are intended to facilitate the progress of students by recognizing the common curriculum elements among the Career and Technical Education partners.
- Articulation agreements should be developed between high school and college faculty for each specific curriculum area. Each agreement will be separate, designated to meet the needs of students as they progress through high school/college degree requirements.
- Faculty and administrators at your school should review the articulation agreement, obtain the signatures required, and return the completed form to the appropriate Department Chair at the College.
- The Chairperson at SUNY Broome Community College will obtain the appropriate signatures at the college, and a copy of the complete contract will be returned to you.
- This agreement shall automatically renew each year unless a modification or cancellation is requested in writing by either SUNY Broome Community College or Syracuse City School District.
- Copies of the Articulation agreement should be filed with the Secondary School Department Office, SUNY Broome Community College Program Office, and the SCSD Career and Technical Education Office.

### SUNY Broome Community College Course(s) Articulated:

<b>FRS 103</b>	<b>Fire Prevention &amp; Protection</b>	<b>3 credits</b>
Course Number	Title	SUNY Broome Credits
<b>FRS 105</b>	<b>Fire Investigation</b>	<b>3 credits</b>
Course Number	Title	SUNY Broome Credits
<b>HLS 150</b>	<b>Emergency Management</b>	<b>3 credits</b>
Course Number	Title	SUNY Broome Credits
<b>*FRS 999</b>	<b>Fire Elective</b>	<b>3 credits **</b>
Course Number	Title	SUNY Broome Credits

### Secondary Course(s) to be Certified:

<b>FRP 100</b>	<b>Fire Rescue Pathway 200</b>	<b>1 Credits</b>
Title		High School Credits
<b>FRP 200</b>	<b>Fire Rescue Pathway 300</b>	<b>1 Credits</b>
Title		High School Credits
<b>FRP 300</b>	<b>Fire Rescue Pathway 400</b>	<b>1 Credits</b>
Title		High School Credits
<b>**Precision Exam – with score of 80% or higher</b>		<b>N/A</b>
Title		High School Credits



**\* This applies only to Fire Protection Technology majors only – this does not apply to Homeland Security majors.**

**SUNY Broome Community College agrees to:**

1. Set up procedures at SUNY Broome Community College to accommodate students from the participating secondary schools who earn articulated credit.
2. Establish opportunities for students who are enrolled in the articulated course(s) to meet program faculty and advisors prior to their first semester at SUNY Broome Community College.
3. Maintain follow-up files and closely monitor the academic progress of students in articulated programs.
4. Set up procedures to ensure that the articulated credit is posted on the student's college record at the appropriate time with the SUNY Broome Community College course number and name, the credits earned, and the notation "Proficiency credit granted."
5. Notify participating secondary school of any curriculum changes to articulated course that will affect the agreement.

**Secondary School agrees to:**

1. Communicate the details of the articulation agreements to the high school principals, teaching staff, guidance personnel, students and parents.
2. Develop procedures for certifying that each student has satisfied the requirements for receiving articulated credit.
3. Develop methods for publicizing the articulation agreement in order to encourage students to take advantage of this opportunity.
4. Notify SUNY Broome Community College of any curriculum changes to the certified course that will affect the agreement.
5. Notify students they are responsible for contacting SUNY Broome Criminal Justice and Emergency Services Department Chair, after their official high school transcripts denoting SCSD courses have been received, to request a transfer credit evaluation.

**Guidelines for awarding articulated credit:**

1. The student must have completed the course(s) specified by this agreement with a grade of "B" or better, or 80% or better.
2. The student must meet the performance outcomes and competencies specified in the course outlines.
3. The student understands that if he/she is unable to make satisfactory progress in an advanced course in the area for which articulated credit is awarded, he/she may, at the discretion of the faculty, be required to complete a lower level course.
4. This articulation is for graduates of the Syracuse City School District Fire and Rescue program who are admitted into the A.A.S Fire Protection Technology (FS) or A.S. Homeland Security (HMSC) program at SUNY Broome Community College.





**Signatures**

**SUNY Broome Community College:**

Kathy Weber 4/9/18  
Chairperson, Criminal Justice & Emergency Services Date

Beth Mollen 4/11/18  
Associate VP & Dean, Business & Public Services Division Date

Jan L. Ballan 4-16-18  
Executive Vice President & Chief Academic Officer Date

**Secondary School:**

Janine Agreca 3/28/18  
Superintendent, Syracuse City School District Date

Chris [Signature] 3/28/18  
Assistant Superintendent for CTE and High Schools Date

## E. Work-based Learning

*Work-based learning (WBL) is the “umbrella” term used to identify activities which collaboratively engage employers and schools in providing structured learning experiences for students. These experiences focus on assisting students to develop broad, transferable skills for postsecondary education and the workplace. A quality WBL experience can make school-based learning more relevant by providing students with the opportunity to apply knowledge and skills learned in the classroom to real world situations.*

*Time requirements that students in an approved program may devote to work-based learning experiences are set by administrators of the approved program. This time should be an outcome of the self-study report and external review phases of the approval process. Work-based learning experiences must be sufficient in length and rigor to contribute to student achievement of the State learning standards as well as specific technical competencies.*

### Process

- The school district/BOCES and the employer cooperatively plan all work experiences.
- The school district/BOCES set up a formal procedure for the supervision/coordination of all work-based learning experiences and must ensure that work-based learning coordinators are appropriately certified.
- The school district/BOCES provide work-based learning experiences for students with disabilities
- The school district/BOCES and employer must ensure compliance with federal and state labor laws, and the State Department of Labor regulations and guidelines.
- The school district/BOCES must explore and develop work-based learning experiences in settings that are relevant to the program.
- The school district/BOCES must comply with Commissioner’s Regulations and Department policy where credit towards graduation is being awarded.

### Documentation

Recommendations for work-based learning should be included in the self-study report and reviewed by the external committee.

### Resources

New York State Education Department Work Experience Manual <http://www.emsc.nysed.gov/cte/wbl/>

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>



SYRACUSE CITY SCHOOL DISTRICT  
Career and Technical Education

# CTE

Internship Handbook

*Preparing today's students for tomorrow's careers.*



# Career and Technical Education Internship

## Introduction to Career & Technical Education Work Based Learning

## Introduction to Syracuse City School District CTE Internship

### Career & Technical Education Program/Teacher Guidelines

1. Legal requirements of Internship Program
2. Career & Technical Education Program/Teacher Checklist

### Employer Internship Partner Guidelines

1. Employer Safety Requirements
2. Expectations and responsibilities of the employer partner
3. Worksite/Employer Internship Partner Checklist

### Student Intern Guidelines

1. Student Intern expectations and responsibilities
2. Student Internship Checklist

## FORMS

- NYSED Application for Employment Certificate (NYSED form attached)
- SCSD Certificate of insurance to cover student liability (sample attached)
- SCSD Memorandum of Agreement (Form #1)
- SCSD Internship Program Application (Form #2)
- SCSD Internship Ready to Work Assessment (Form #3)
- SCSD Internship Training Plan (Form #4)
- SCSD Notification of unpaid internship (Form #5)
- SCSD Internship Safety Certification (Form #6)
- SCSD Worksite Orientation (Form #7)
- SCSD Weekly Time Log/Record of Attendance (Form #8)
- SCSD Student Evaluation (Form #9)
- SCSD Mentor Program Evaluation (Form #10)

*Forms are available on SCSD CTE website [www.syracusecityschools.com/cte](http://www.syracusecityschools.com/cte)*



# Introduction

## Syracuse City School District Career and Technical Education Work Based Learning

Learning in the workplace is not a new concept. Informal, on-the-job training is an integral part of all workforce development. Work based learning (WBL) provides structured learning experiences for students through exposure to a range of occupations. The Harvard University report, Pathways to Prosperity (February, 2011) suggested that “Work-linked learning should play an especially important role in the new American system of pathways to prosperity. There is mounting evidence that this would be an effective strategy for encouraging young adults to complete both high school and post-secondary degrees. Co-operative education is a tested model that provides students with extensive work experience that is monitored by the school.”

Learning in the workplace is connected to and supports learning in the classroom. Work based learning also helps students achieve established academic standards. Properly developed and supported, work based learning provides a practical context for school subject matter and enhances the traditional classroom learning. Workbased learning activities promote the development of broad, transferable skills and are a key element of a rigorous and relevant education for students. It enables students to acquire the attitudes, skills and knowledge needed to succeed in today’s workplace.

Employer partners can develop and support work based learning experiences that promote the attainment of workplace knowledge and skills. In doing so, they can support academic achievement and personal growth by designing, structuring, supporting and connecting work based learning experiences. Work based learning also supports professional, technical, and work-readiness skills development. Quality work based learning should:

- Be designed to enhance the learning of skills and workplace knowledge in all aspects of the industry
- Be structured to be safe, legal and measurable
- Be developmentally appropriate
- Have identified learning objectives and assess student performance
- Develop career ready practices and provide opportunities for reflection
- Be supported and documented by appropriate planning and training; and
- Comply with State and Federal labor laws

## Syracuse City School District Career and Technical Education Internship

A Career and Technical Education Internship provides an important link between the classroom and the workplace for students age 16 and older. It is a structured, time-limited, career preparation activity in which students are assigned to a workplace for a defined period of time to participate in and observe firsthand within a given industry. The internship enhances and adds relevance to classroom learning. The internship may provide the opportunity to work in teams, rotate through a number of departments and job functions, or work on a project of interest to the student. It is essentially a partnership that links school, community, and business/industry to provide a real-world environment in which students are given the opportunity to apply, and thereby enhance, the knowledge and skills obtained in the classroom. The internship is related to the student’s CTE program of study, with the primary goals of promoting:

- The exploration of and experience in a field of interest
- Exposure to a wide range of careers and jobs within an industry
- Opportunities to develop, practice and demonstrate new skills
- The acquisition of occupational knowledge and awareness of the skills and education needed to be successful in the industry



# Career & Technical Program/ Teacher Guidelines

## Legal Requirements of SCSD CTE Internship Program

All Career and Technical Education Internship Programs have the common objective of providing opportunities for students to develop and demonstrate job skills at a supervised worksite. They are supported by training plans developed cooperatively by the employer, instructor, and student. There should be ongoing communication between the job mentors and the CTE teacher or work based learning coordinator concerning students' performance and needs.

Each internship program needs to have the following:

- New York State Education Department (NYSED) approval of the CTE program
- The employer understands that the student placement is governed by NYSED, New York State Workers' Compensation Board (NYSWCB), New York State Department of Labor (NYS DOL), and United States Department of Labor (USDOL) labor laws and regulations
- Employer is provided a Certificate of Insurance from school where school liability insurance protects the employer from any damage student may do in the workplace
- Students are given written notification that this program is unpaid and they are not due any wages per NYSDOL regulations
- Per NYS, students are required to receive coverage under the employer's Workers' Compensation Insurance if student is interning for a for-profit company. If student is interning at a non-profit entity, the student is required to be covered by the employer's visitors or volunteer insurance.
- Worksite must be in compliance with Occupational Safety and Health Administration (OSHA) regulations. Health and safety instruction/training appropriate for the job is provided by the SCSD and employer specific training is provided by the employer on the worksite.
- Memorandum of Agreement is in effect between the cooperating business and the education agency and outlines the responsibilities of the student, employer, parent/guardian, and school/coordinator, all of whom must sign to confirm their support of the agreement.
- Students complete an Internship Application indicating their understanding of, and agreement to, all rules and regulations of the program.
- Students receive instruction embedded within their CTE curriculum relating to the technical and career ready practices.
- An Internship Training Plan (ITP) is developed and used for each participating student. The plan identifies the general and specific job tasks the student will perform on the job, the desired learning outcomes of the experience, and the time frame the student will spend at each task. The training plan should be designed to ensure that the student will have a progressive learning experience.
- All participating students are meeting, or have met, academic requirements of their CTE programs and academic subjects. No students on academic probation will participate in the internship.
- Employment Certificate (Working Papers) for students provide verification that a student under age 18 is eligible for employment. The student, employer, and school must complete the form. Employment certificates are obtained at the high school – typically the main office, health office, or guidance office.
- Time Log/Record of Attendance provides an official record of the weekly and cumulative hours the student has worked during the experience. It must be maintained for each student.
- An intern evaluation will be done by the CTE teacher before the internship, at the midpoint of the internship and at the end of the internship. This same form will be completed by the on-site supervisor in the midpoint and at the end of the internship.



# SCSD CTE Internship Program Checklist

(To be completed by CTE teacher or WBL coordinator)

- NYSED has approved the CTE program
- The employer understands that the student placement is governed by NYSED, NYSWCB, NYSDOL, and USDOL labor laws and regulations
- NYSED Application for Employment certificate (working papers, usually available in school counseling office) has been verified (NYSED form attached)
- Employer is provided with a Certificate of Insurance from school to cover liability (sample attached)
- A written Memorandum of Agreement is in effect between the cooperating business and the education agency **(Form #1)**
- Students complete an Internship Application indicating their understanding of, and adherence to all rules and regulations set forth by the program. **(Form #2)**
- Students receive instruction embedded within their CTE curriculum relating to the technical and Career Ready Practices. The CTE teacher and the student have completed the SCSD CTE Internship Ready to Work Assessment **(Form #3)**
- An Internship Training Plan (ITP) is developed and used for each participating student **(Form #4)**
- Students are given written notification that this program will be unpaid and they are not due any wages per NYS DOL regulations **(Form #5)**
- All SCSD internship candidates have received appropriate safety certification for the industry provided by the school before internship and employer specific training and orientation is provided by the employer on the worksite **(Form #6 & Form #7)**
- All participating students are meeting, or have met, academic requirements of their CTE programs and academic subjects
- Review Time Log/Record of Attendance which serves as an official record of the hours the student has worked during the experience **(Form #8)**

## REQUIRED FORMS

NYSED Application for Employment Certificate

Certificate of Insurance

SCSD Memorandum of Agreement **(Form #1)**

SCSD Internship Program Application **(Form #2)**

SCSD Internship Ready to Work Assessment **(Form #3)**

SCSD Internship Training Plan **(Form #4)**

SCSD Notification of unpaid internship **(Form #5)**

SCSD Internship Safety Certification **(Form #6)**

SCSD Worksite Orientation **(Form #7)**

SCSD Weekly Time Log/Record of Attendance **(Form #8)**

*Forms are available online at the SCSD CTE website : [www.syracusecityschools.com/cte](http://www.syracusecityschools.com/cte)*

\_\_\_\_\_  
CTE Teacher/WBL Coordinator

\_\_\_\_\_  
Date



# Employer Internship Partner Guidelines

## SCSD CTE Internship Employer Requirements

### Safety

At all times, both school personnel and the employment site personnel must take appropriate steps to ensure that safe practices are stressed and followed. However, it is impossible to guarantee that no injuries resulting in medical expenses and liability will occur. The following prudent steps are encouraged:

1. In-school course content must include training related to safety at the worksite. Appropriate safety certification should be offered if possible. SCSD internship candidates will have received appropriate safety training before beginning their internship.
2. Any sites used for SCSD CTE internships will be reviewed by school personnel prior to placing a student at the worksite.
3. Employers must provide safety training information to interns as they would a new employee. Safety training must be provided if the employer engaged in a particularly hazardous occupation for minors as defined by the USDOL.
4. Provisions for student safety must be included as part of the training agreement signed by the employer, student, parent, and school representative.

## Types of Liability Insurance and Risk Management

### Workers' Compensation and Employer Liability Insurance

All employers will have a policy that provides coverage for the Workers' Compensation statutory benefits as well as liability coverage for certain employment-related situations. Verification of employer's Workers Compensation insurance will be included in the Memorandum of Agreement. The SCSD will also have insurance that covers the student participating in a school-related internship experience.





## SCSD CTE Internship Expectations & Responsibilities of Employer

### Before

- Determine projects or activities that would be appropriate for your student intern
- Communicate with staff that an intern will be at the workplace and identify mentors
- Designate one employee, the on-site supervisor, to work with coordinator/teacher to develop and define successful student objectives and experiences and record on the student Internship Training Plan

### During

- Provide student with a Work Site Orientation to organization and any required training
- Train student intern for your work site, including all work site safety training
- Maintain a quality, safe and legal learning experience; provide effective supervision
- Use the Internship Training Plan as a guide for the internship; hold intern to employee standards/expectations; oversee, direct, and provide adequate tasking to maximize learning
- Meet with coordinator/teacher and student to decide on an ongoing communications strategy
- Evaluate intern work and provide constructive criticism
- Assist student in working toward learning outcomes
- Coordinate student schedule, approve weekly timesheets
- Communicate successes and opportunities at the workplace that the teacher can use to enhance the value of classroom connections
- Complete a student evaluation midway through internship and discuss with student

### After

- Complete a final evaluation of the student
- Hold debriefing session and review performance with the student and teacher
- Complete a Program Evaluation



## SCSD CTE Internship Employer Internship Partner Checklist (To be completed by On-Site Supervisor/Mentor)

- Meet with coordinator/teacher and student to agree on ongoing communication strategy (e-mail, text, telephone, etc.)
- A written Memorandum of Agreement is in effect between the cooperating business and the education agency ([Form #1](#))
- Work with coordinator/teacher to develop and define successful student objectives and experiences and record on the student Internship Training Plan ([Form #4](#))
- Coordinate student schedule, approve weekly time log/record of attendance ([Form #8](#))
- Communicate with staff that an intern will be at the workplace and identify on-site supervisor and/or mentor

On-Site Supervisor \_\_\_\_\_

Mentor Name \_\_\_\_\_

- Provide student with Work Site Orientation to organization and any required training (Form #7)
- Create and maintain a quality, safe and legal learning experience
- Hold intern to employee standards/expectation; provide student support and candid feedback
- Communicate successes and opportunities at the workplace that the teacher can use to enhance the value of classroom connections
- Complete an interim SCSD CTE Internship Ready to Work Assessment of student performance and discuss with student ([Form #3](#))
- Provide effective supervision
- Complete a final assessment of the student ([Ready to Work Assessment, Form #3 and Student Training Plan, Form #4](#))
- Complete a program evaluation ([Form #10](#))

### REQUIRED FORMS

SCSD Memorandum of Agreement  
(Form #1)

SCSD Internship Ready to Work  
Assessment  
(Form #3)

SCSD Internship Training Plan  
(Form #4)

SCSD Worksite Orientation  
(Form #7)

SCSD Weekly Time Log/Record of  
Attendance  
(Form #8)

SCSD Mentor Program Evaluation  
(Form #10)

*Forms are available online at the SCSD CTE  
website : [www.syracusecityschools.com/cte](http://www.syracusecityschools.com/cte)*

\_\_\_\_\_  
Employer/ Mentor

\_\_\_\_\_  
Date



# Student Intern Guidelines

## Expectations and Responsibilities of Students

### Before

- Obtain working papers (if under 18)
- Return Internship Application and all permission slips with appropriate signatures
- Meet with your teacher/coordinator and worksite supervisor to finalize an Internship Training Plan

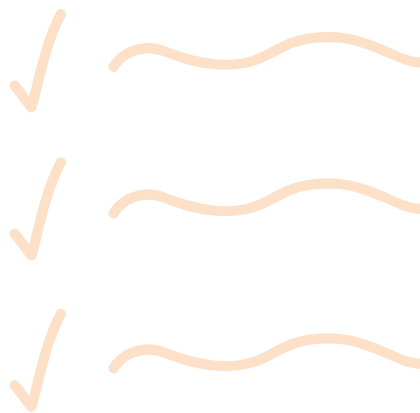
### During

- Attend Orientation at the worksite
- Observe all workplace rules and regulations particularly those applicable to safety and security concerns
- Perform all duties, jobs and assigned tasks; treat internship like a real job
- Maintain regular work schedule and notify supervisor in advance of any vacation/appointments
- Track your hours as instructed on Weekly Timesheet
- Develop skill specific learning outcomes with your worksite supervisor
- Participate in ongoing reflection journal activities and skill building classroom assignments
- Communicate with your teacher/coordinator and worksite supervisor if issues arise
- Keep copies of all necessary paperwork (work journal, training plan, Weekly Time Log/Record of Attendance, and evaluations)

### After

- Participate in self-evaluation and reflection activities
- Update your resume based upon new skills and experiences gained
- Send thank you note to employer

TO DO...



## SCSD CTE Internship Student Checklist (To be completed by student)

- Obtain NYSED Application for Employment Certificate (usually available in school counseling office, application attached)
- A written Memorandum of Agreement is in effect between the cooperating business, the education agency, and signed by student and parents (**Form #1**)
- Return Internship Application (**Form #2**) and all permission slips with appropriate signatures
- Develop skill specific learning outcomes with your worksite supervisor
- Meet with your teacher/coordinator and worksite supervisor to finalize an Internship Training Plan for the internship (**Form #4**)
- Attend orientation at the worksite (**Form #7**)
- Observe all workplace rules and regulations particularly those applicable to safety and security concerns
- Perform all duties, jobs and assigned tasks; treat internship like a real job
- Maintain regular work schedule and notify supervisor in advance of any vacation/appointments
- Track you hours as instructed on time log/record of attendance (**Form #8**)
- Participate in ongoing reflection activities and skill building classroom assignments
- Communicate with your teacher/coordinator and worksite supervisor, if issues arise and keep copies of all necessary paperwork (work journal, training plan, Weekly Time Log/Record of Attendance, and evaluations)
- Participate in self-evaluation and reflection activities (**Forms #3 & #9**)
- Update your resume based on new skills and experiences gained
- Send thank you note to employer

### REQUIRED FORMS

SCSD Memorandum of Agreement  
(Form #1)

SCSD Internship Program Application  
(Form #2)

SCSD Internship Ready to Work  
Assessment  
(Form #3)

SCSD Internship Training Plan  
(Form #4)

SCSD Worksite Orientation  
(Form #7)

SCSD Weekly Time Log/Record of  
Attendance  
(Form #8)

SCSD Student Evaluation  
(Form #9)

*Forms are available online at the SCSD CTE  
website : [www.syracusecityschools.com/cte](http://www.syracusecityschools.com/cte)*

---

Student

---

Date



# SCSD CTE Internship Forms

NYSED Application for Employment Certificate

SCSD Certificate of Insurance to Cover Student Liability (Sample)

Form #1 SCSD Memorandum of Agreement

Form #2 SCSD Internship Program Application

Form #3 SCSD Internship Ready to Work Assessment

Form #4 SCSD Internship Training Plan

Form #5 SCSD Notification of unpaid internship

Form #6 SCSD Internship Safety Certification

Form #7 SCSD Worksite Orientation

Form #8 SCSD Weekly Time Log/Record of Attendance

Form #9 SCSD Student Evaluation

Form #10 SCSD Mentor Program Evaluation

*Forms are available on SCSD CTE website at [www.syracusecityschools.com/cte](http://www.syracusecityschools.com/cte)*



THE UNIVERSITY OF THE STATE OF NEW YORK  
THE STATE EDUCATION DEPARTMENT  
ALBANY, NY 12234

APPLICATION FOR EMPLOYMENT CERTIFICATE

See reverse side of this form for information concerning employment of minors.

All signatures must be handwritten in ink, and applicant must appear in person before the certifying official.

**PART I – Parental Consent** – (To be completed by applicant and parent or guardian)

Parent or guardian must appear at the school or issuing center to sign the application for the first certificate for full-time employment, unless the minor is a graduate of a four-year high school and presents evidence thereof. For all other certificates, the parent or guardian must sign the application, but need not appear in person to do so.

Date .....

I, ..... Age .....

[Applicant]

Home Address ....., apply for a certificate as checked below

[Full Home Address including Zip Code]

- Nonfactory Employment Certificate – Valid for lawful employment of a minor 14 or 15 years of age enrolled in day school when attendance is not required.
- Student General Employment Certificate – Valid for lawful employment of a minor 16 or 17 years of age enrolled in day school when attendance is not required.
- Full-Time Employment Certificate – Valid for lawful employment of a minor 16 or 17 years of age who is not attending day school.

I hereby consent to the required examination and employment certification as indicated above.

.....  
[Signature of Parent or Guardian]

**PART II – Evidence of Age** – (To be completed by issuing official only)

..... – Check evidence of age accepted – Document # (if any) .....

[Date of Birth]

Birth Certificate      State Issued Photo      I.D Driver's License      Schooling Record      Other.....  
[Specify]

**PART III – Certificate of Physical Fitness**

Applicant shall present documentation of physical exam from a school or private physician, physician's assistant or nurse practitioner licensed to practice within New York State. Said examination must have been given within 12 months prior to issuance of the employment certificate. Date of physical exam on file with school ..... If physical exam is over 12 months, provide student with certificate of physical fitness to be completed by school medical director or private health care provider. If the physical exam or Certificate of Physical Fitness is limited with regards to allowed work/activity, the issuing official shall issue a Limited Employment Certificate (valid for a period not to exceed 6 months unless the limitation noted by the physician is permanent, then the certificate will remain valid until the minor changes jobs. Enter the limitation on the employment certificate. THE PHYSICIAN'S CERTIFICATION SHOULD BE RETURNED TO THE APPLICANT.

**PART IV – Pledge of Employment** – (To be completed by prospective employer)

Part IV must be completed only for: (a) a minor with a medical limitation; and (b) for a minor 16 years of age or legally able to withdraw from school, according to Section 3205 of the Education Law, and must show proof of having a job.

The undersigned will employ ..... residing at .....

[Applicant]

as ..... at .....

[Description of Applicant's Work]

[Job Location]

for ..... days per week ..... hours per day, beginning ..... a.m. .... p.m.

..... Factory ending ..... a.m. .... p.m.

[Name of Firm]

Nonfactory .....

[Address of Firm]

..... Starting date .....

[Telephone Number]

.....  
[Signature of Employer]

**PART V – Schooling Record** – (To be completed by school official)

Part V must be completed only for a minor 16 years of age who is leaving school and resides in a district (New York City and Buffalo) which require a minor 16 years of age to attend school, according to Section 3205 of the Education Law.

I certify that the records of .....

[Name of School]

[Address]

Show that ..... whose date of birth is .....

[Name of Applicant]

Is in grade.....

.....  
[Signature of Principal or Designee]

**PART VI – Employment Certification** – (To be completed by issuing official only)

Certificate Number ..... Date Issued .....

.....  
[School or Issuing Center]

.....  
[Address]

.....  
[Signature of Issuing Officer]

THIS APPLICATION DOES NOT AUTHORIZE EMPLOYMENT

## GENERAL INFORMATION

An employment Certificate (Student Nonfactory, Student General, or Full Time) may be used for an unlimited number of successive job placements in lawful employment permitted by the particular type of certificate.

A Nonfactory Employment Certificate is valid for 2 years from the date of issuance or until the student turns 16 years old, with the exception of a Limited Employment Certificate. A Limited Employment Certificate is valid for a maximum of 6 months unless the limitation noted by the physician is permanent, then the certificate will remain valid until the minor changes job. It may be accepted only by the employer indicated on the certificate.

**A new Certificate of Physical Fitness is required when applying for a different type of employment certificate, if more than 12 months have elapsed since the previous physical for employment.**

An employer shall retain the certificate on file for the duration of the minor's employment. Upon termination of employment, or expiration of the employment certificate's period of validity, the certificate shall be returned to the minor. A certificate may be revoked by school district authorities for cause.

A minor employed as a Newspaper Carrier, Street Trades Worker, Farmworker, or Child Model, must obtain the Special Occupational Permit required.

A minor 14 years of age and over may be employed as a caddy, babysitter, or in casual employment consisting of yard work and household chores when not required to attend school. Employment certification for such employment is not mandatory.

An employer of a minor in an occupation which does not require employment certification should request a Certificate of Age.

## PROHIBITED EMPLOYMENT

Minors 14 and 15 years may not be employed in, or in connection with a factory (except in delivery and clerical employment in an enclosed office thereof), or in certain hazardous occupations such as: construction work; helper on a motor vehicle; operation of washing, grinding, cutting, slicing, pressing or mixing machinery in any establishment; painting or exterior cleaning in connection with the maintenance of a building or structure; and others listed in Section 133 of the New York State Labor Law.

Minors 16 and 17 years of age may not be employed in certain hazardous occupations such as: construction worker; helper on a motor vehicle, the operation of various kinds of power-driven machinery; and others listed in Section 133 of the New York State Labor Law.

## HOURS OF EMPLOYMENT

Minors may not be employed during the hours they are required to attend school.

Minors 14 and 15 years of age may not be employed in any occupation (except farmwork and delivering, or selling and delivering newspapers):

**When school is in session:**

- more than 3 hours on any school day, more than 8 hours on a nonschool day, more than 6 days in any week, for a maximum of 18 hours per week, or a maximum of 23 hours per week if enrolled in a supervised work study program approved by the Commissioner.
- after 7 p.m. or before 7 a.m.

**When school is not in session:**

- more than 8 hours on any day, 6 days in any week, for a maximum of 40 hours per week.
- after 9 p.m. or before 7 a.m.

This certificate is not valid for work associated with newspaper carrier, agriculture or modeling.

Minors 16 and 17 years of age may not be employed: --

**When school is in session:**

- more than 4 hours on days preceding school days; more than 8 hours on days not preceding school days (Friday, Saturday, Sunday and holidays), 6 days in any week, for a maximum of 28 hours per week.
- between 10 p.m. and 12 midnight on days followed by a school day without written consent of parent or guardian and a certificate of satisfactory academic standing from the minor's school (to be validated at the end of each marking period).
- between 10 p.m. and 12 midnight on days not followed by a school day without written consent of parent or guardian.

**When school is not in session:**

- more than 8 hours on any day, 6 days in any week, for a maximum of 48 hours per week.

## EDUCATION LAW, SECTION 3233

"Any person who knowingly makes a false statement in or in relation to any application made for an employment certificate or permit as to any matter by this chapter to appear in any affidavit, record, transcript, certificate or permit therein provided for, is guilty of a misdemeanor."



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A :	
	INSURER B :	
	INSURER C :	
INSURER D :		
INSURER E :		
INSURER F :		

**COVERAGES**

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR 500,000 Retained GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / N If yes, describe under DESCRIPTION OF OPERATIONS below						WC STATUTORY LIMITS   OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

**CERTIFICATE HOLDER****CANCELLATION**

CERTIFICATE HOLDER	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# Memorandum of Agreement

## (Form #1)

### Type of Work Based Learning Experience: Non-Paid Internship

This Work Based Learning Experience Agreement is entered into by and between the Syracuse City School District (SCSD) \_\_\_\_\_ (Student), his/her Parents/Guardian, \_\_\_\_\_ (Parent/Guardian), and his/her Work Experience Employer, \_\_\_\_\_ (Employer), on the date indicated below, whereby the Student will participate in a CTE Internship (Program at the Employer's place of business located at \_\_\_\_\_, on \_\_\_\_\_, during the hours of \_\_\_\_\_).

### **THE STUDENT UNDERSTANDS THAT HIS/HER CONDUCT IS A REFLECTION UPON THE SCHOOL NAME AND AGREES THAT HE/SHE WILL:**

1. Provide his/her own transportation to and from the Employer's place of business (the SCHOOL, the Student's home school, the SCHOOL and the Employer are in no way responsible for providing the Student with transportation to and/or from the Employer's place of business at any time or for any incidents or accidents which may occur while the Student is on route to or from the Employer's place of business)
2. Demonstrate a conscientious attitude and be honest, punctual, cooperative, courteous and willing to learn while at the Employer's place of business.
3. Keep regular attendance as agreed upon with the Employer, excluding Employer-observed holidays, days on which the Employer's place of business is closed or other legal absences and understands that his/her attendance will be taken from his/her weekly attendance reports.
4. Keep regular attendance at his/her home school.
5. Give the Employer as much advance notice as possible if unable to report for work or to do so in a timely manner and contact the CTE teacher at (315) \_\_\_\_\_.
6. Report to SCHOOL if the Internship location is closed for any reason during at time in which the student is scheduled to be at the Internship location and SCHOOL is in session.
7. Complete weekly time log/record of attendance (Form # 8) reports as required by SCHOOL.
8. Engage in only those work based learning experiences approved by the supervisor at the work-site.

### **THE EMPLOYER AGREES THAT IT WILL:**

1. Not permit the Student to replace any paid employee (in the case of an Internship).
2. Advise the Student of all company rules, regulations and policies which relate to the Student.
3. Explain to the Student the responsibilities and duties of his/her internship and shall correlate on-the-job training with safety instructions given by the SCHOOL.
4. The work of the Student in occupations declared particularly hazardous by the U.S. Department of Labor shall be (i) incidental to the Student's training; (ii) intermittent and for short periods of time; and (iii) under the direct and close supervision of a qualified and experienced person.
5. Provide direct supervision by an authorized employee to the Student as needed.
6. Complete an accident report form and return to SCHOOL in the event of an accident.
7. Review the Student's performance with him/her on a weekly basis and sign a weekly time sheet, complete an evaluation of the Student on forms provided by the SCHOOL.
8. Inform the SCHOOL Instructor/Coordinator when the Student is absent or not performing adequately by calling (315) \_\_\_\_\_.



## (Form #1 Continued)

9. Observe any and all laws that may relate to the Student's work experience.

**THE SCHOOL AGREES THAT IT WILL:**

1. Carry the insurance listed for students during class activities including internships, job experiences and work placement.
2. Accident Insurance: SCHOOL carries tertiary accident insurance to cover medical expenses as a result of an accident. The parent's health insurance is primary and the home school district would be secondary. General Liability Insurance: SCHOOL carries general liability insurance to cover up to one million dollars for a single event. As added protection, a ten million dollar umbrella policy is also in effect.
3. Assist the Student in securing internship placement regardless of his/her sex, race, color, national origin or disability (all inquiries and/or complaints regarding discrimination should be directed to the compliance officer, Patty Clark, SCSD Central Office, 725 Harrison Street, Syracuse, New York 13210. Telephone: (315) 435-4131.
4. Provide the STUDENT with safety instructions correlated by the EMPLOYER with on-the-job training.
5. Review with the Student and the Employer their respective responsibilities and obligations while participating in the Program.

The parties/signatories hereby agree that good communication and understanding between them is vital if the objectives of this Program are to be met and that joint conferences between the Student, Employer, Parent/Guardian, Instructor, and others may be scheduled from time to time in order to discuss:

1. the student's progress
2. any misunderstandings
3. the reason for termination of the Agreement

This Agreement is not in effect until signed by all parties. This Agreement may be terminated at any time by any party upon written notice to the other parties.

We the undersigned, have reviewed and agreed to the terms and conditions set forth herein.

Date	<u>      /      /      </u>	_____	Student
Date	<u>      /      /      </u>	_____	Parent/ Guardian
Date	<u>      /      /      </u>	_____	Daytime Phone
		_____	Evening Phone
Date	<u>      /      /      </u>	_____	Employer/ Supervisor
Date	<u>      /      /      </u>	_____	CTE Teacher
Date	<u>      /      /      </u>	_____	Home School Principal

The Syracuse City School District hereby advises students, parents, employees and the general public that it is committed to providing equal access to all categories of employment, programs and educational opportunities, including career and technical education opportunities, regardless of actual or perceived race, color, national origin, Native American ancestry/ethnicity, creed or religion, marital status, sex, sexual orientation, age, gender identity or expression, disability or any other legally protected category under federal, state or local law.

Inquiries regarding the District's non-discrimination policies should be directed to:

Executive Director of Student Support Services, Civil Rights Compliance Officer, Syracuse City School District, 725 Harrison Street • Syracuse, NY 13210 (315) 435-4131, Email: [CivilRightsCompliance@scsd.us](mailto:CivilRightsCompliance@scsd.us)





Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# CTE Internship Program Application Form

(Form #2)

## Personal Information

Last Name	First Name	Age	Date of Birth
Street		Home Telephone Number	Cell Phone Number
City, State, Zip		Emergency Contact Name	Telephone Number
Email Address		Relationship to Emergency Contact	
Primary Parent/ Guardian Name		Parent/ Guardian's Telephone Number	
Primary Parent/ Guardian Email		Home	
		Cell	
Secondary Parent/ Guardian Name		Secondary Parent/ Guardian's Telephone Number	
Secondary Parent/ Guardian Email		Home	
		Cell	
Working Papers Certificate Number		SCSD Student schedule should be attached to this form School Counselor	

## School Year Training/ Work Schedule Availability

Please list the hours you can work during a typical weekly schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Please check applicable box:  Fixed Schedule  Schedule will vary

## Sports, Clubs, and Other Activities

## Transportation

Please check the appropriate response

Do you have a license? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, which license do you have? <input type="checkbox"/> Full License <input type="checkbox"/> Junior License
Do you drive to school? <input type="checkbox"/> Yes <input type="checkbox"/> No	License Number:

If you do not have a license, how do you plan on getting to and from your internship?

Public Transportation  Other



(Form #2 Continued)

**INSURANCE COVERAGE IN CASE OF INJURIES TO STUDENT AT INTERNSHIP:****EMPLOYER'S WORKER'S COMPENSATION MUST COVER THE STUDENT IN CASE OF INJURIES AT TRAINING SITE.**PROGRAM AWARENESS STATEMENT TO BE CHECKED BY STUDENTS:

- In order to receive credit for my work-based learning experience, I must be training at a legal site approved by the school's CTE Teacher or work-based learning coordinator.
- I must notify my CTE teacher or work-based learning coordinator immediately if there is a change of work schedule or duties at the training site.
- Failure to report any disciplinary action, termination, or proper documentation of hours may result in the student not earning school credit.
- Students must present all daily attendance records to CTE teacher or work-based learning coordinator weekly and complete all assignments related to the program.
- I must immediately notify my work-based learning coordinator if I have or develop any medical condition(s) which affects my ability to participate in training, such as allergies, lifting heavy items, movement, standing, sitting, migraine headaches, etc. If there are any current conditions, please state them below. The presence of such a condition will not necessarily preclude me from participating in the internship and accommodations may be provided.

**PARENTAL/GUARDIAN PERMISSION AND PICTURE/NEWS STORY RELEASE:**

I give my child, \_\_\_\_\_ permission to participate in the work-based learning internship at the Syracuse City School District. By signing the parental permission form, it is understood that:

- All the information is accurate.
- In order to receive credit, students must work a minimum of 150 hours during the school year.
- All students must report to CTE teacher or work-based learning coordinator in the case of any change in employment.
- Failure to report any disciplinary action, termination, or proper documentation may result in the student not earning school credit.
- Students must present all daily attendance records to CTE teacher or work-based learning coordinator weekly and complete all assignments related to the program.
- A student with a junior license must only drive to school if they go directly to work following the school day and they must carry with them the proper paperwork as directed by the work-based learning coordinator.

In addition to agreeing with the above statements, please check off one:

- I give permission for my child's photograph or name to be used to promote the Work Experience Program.
- I do not want my child's photograph or name to be used to promote the Work Experience Program.

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Parent/ Guardian's Name          Parent/ Guardian's Signature          Date

\_\_\_\_\_  
Relationship to Student

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Student's Name          Student's Signature          Date

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Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# CTE Internship Ready to Work Assessment (Form #3)

Name \_\_\_\_\_ Program \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**Scale**  
1 = Seldom. 2 = Occasionally. 3 = Usually. 4 = Always.

		Student	Teacher	Onsite Supervisor
<b>ZEST</b>				
1	Actively participates			
2	Shows enthusiasm			
3	Invigorates others			
<b>GRIT</b>				
4	Finishes whatever he or she begins			
5	Tries very hard even after experiencing failure			
6	Works independently with focus			
<b>SELF CONTROL SCHOOL WORK</b>				
7	Comes to class prepared			
8	Pays attention and resists distractions			
9	Remembers and follows directions			
10	Gets to work right away rather than procrastinating			
<b>SELF-CONTROL INTERPERSONAL</b>				
11	Remains calm even when criticized or otherwise provoked			
12	Allows others to speak without interruption			
13	Is polite to adults and peers			
14	Keeps his/her temper in check			

		Student	Teacher	Onsite Supervisor
<b>OPTIMISM</b>				
15	Gets over frustrations and setbacks quickly			
16	Believes that effort will improve his or her future			
<b>GRATITUDE</b>				
17	Recognizes and shows appreciation for others			
18	Recognizes and shows appreciation for his/her opportunities			
<b>SOCIAL INTELLIGENCE</b>				
19	Is able to find solutions during conflicts with others			
20	Demonstrates respect for feelings of others			
21	Knows when and how to include others			
<b>CURIOSITY</b>				
22	Is eager to explore new things			
23	Asks and answers questions to deepen understanding			
24	Actively listens to others.			
<b>ACADEMIC PERFORMANCE</b>				
25	Completes all assignments with quality and timeliness			
26	Uses tools appropriately and safely			
<b>COMMITMENT</b>				
27	Attends class with one or less absences per quarter			
28	Demonstrates loyalty and appreciation to the program and instructors			





Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# CTE Internship Training Plan (Form #4)

Student's Name	Email	
Student's Address	Telephone	Date of Birth
CTE Program Career Cluster	Working Papers Certificate #	
School Coordinator		
Phone Number		
Fax Number		
Email		
Employer		
Phone Number		
Fax Number		
Email		
Immediate Job Supervisor		
Phone Number		
Email		
Corporate Address		

## Training Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

## Insurance Coverage

- Student is a non-paid intern – Worker's Compensation
- Student is a non-paid observer – Worker's Compensation

## Transportation Provided by

- Student/parent will provide own transportation
- School district will provide transportation during school hours

## Goals for this Work-Based Learning Student:

1. To explore, learn and develop the skills necessary for this career.
2. To develop the Career Ready Practices necessary for success in the global, competitive world.
3. To be trained in the safe operations of this job title.
4. To be able to demonstrate positive behavior and appropriate dress.



(Form #4 Continued)

<b>JOB TASKS AND LEARNING OUTCOMES</b> (Determined by the Employer and Coordinator)	<b>ACHIEVEMENT LEVEL AND COMMENTS</b> 1. Mastered skill 2. Needs more training at the work site. 3. Needs more training at school. 4. Has not reached this training area.
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

<b>CAREER READY PRACTICES</b>	<b>Always</b>	<b>Frequently</b>	<b>Occasionally</b>	<b>Rarely</b>
1. Student works cooperatively as a team member?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Student is able to read instructions for information and application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Student can calculate and measure for information and application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Student can behave in a responsible manner without supervision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Student can communicate verbally and in writing to evoke clear understanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Student demonstrates good listening and follow through skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Student demonstrates critical thinking and problem solving skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Student can locate and manage resources for problem solving.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Student demonstrates a positive work ethic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Student demonstrates computer literacy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## (Form #4 Continued)

SAFETY TRAINING	DATE OF SAFETY TRAINING	ACHIEVEMENT LEVEL AND COMMENTS 1. Mastered safety training instruction. 2. Needs more safety training at work site. 3. Needs more safety training at school. 4. Has not reached this training area.
1. Safety precautions related to stairs, floors, office equipment and furniture.		
2. Safety precaution related to proper dress apparel, shoes, gloves, head, eye and ear protection.		
3. Safety precaution related to use of tools, machines, and chemicals.		
4. Safety precautions related to fire, weather and other natural disasters.		
5. Safety precautions related to sexual harassment and workplace violence.		

DRESS AND BEHAVIOR CODE FOR POSITION	ACHIEVEMENT LEVEL AND COMMENTS 1. Dresses/behaves appropriately 2. Needs to modify dress/behavior. 3. Needs personal consultation.

_____ Employer Name	_____ Employer Signature	_____ Date      /      /
_____ Work-based Learning Coordinator Name	_____ Work Based Learning Coordinator Signature	_____ Date      /      /
_____ Parent/ Guardian Name	_____ Parent/Guardian Signature	_____ Date      /      /
_____ Student Name	_____ Student Signature	_____ Date      /      /

If you have any questions please do not hesitate to contact me at (315) 435-\_\_\_\_\_.

Thank you for your cooperation! \_\_\_\_\_, CTE Teacher

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Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# SCSD CTE Internship Notification of Unpaid Internship (Form #5)

This form serves as notification that the Syracuse City School District CTE Internship is an unpaid internship and students are not due any wages per New York State Department of Labor.

\_\_\_\_\_  
Student

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

\_\_\_\_\_  
CTE Teacher/ WBL Coordinator

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

\_\_\_\_\_  
Worksite Representative/ Mentor

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date





Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

## SCSD Internship Safety Certification (Form #6)

\_\_\_\_\_  
Student

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

\_\_\_\_\_  
Mentor or Supervisor

\_\_\_\_\_  
CTE/ WBL Teacher

### Student CTE Program SCSD Career and Technical Program:

SAFETY CERTIFICATIONS		Date
OSHA 10	<input type="checkbox"/>	/ /
Safe Serv	<input type="checkbox"/>	/ /
First Aid	<input type="checkbox"/>	/ /
CPR	<input type="checkbox"/>	/ /
Other	<input type="checkbox"/>	/ /





Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# SCSD Internship Worksite Orientation (Form #7)

\_\_\_\_\_  
Student

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

\_\_\_\_\_  
Mentor or Supervisor

\_\_\_\_\_  
CTE/WBL Teacher

## Company Orientation

Directions: Be sure that your student employee obtains information about the factors listed below. Check the information on each item as it is completed. Return the completed form to the CTE Teacher or Work Based Learning Coordinator.

### Tour of Workplace

- A tour of the workplace
- An overview of the company safety plan
- Introductions to co-workers

### Tour of Employee Facilities

- Rest rooms
- Lunch room
- Where to store personal belongings

Other \_\_\_\_\_

### Safety Plan

- Safety plan
- Stairwell/fire exits
- Fire Extinguishers
- Special hazards
- Accident prevention
- Safety Training Log, updated as needed

### About the Company

- Discuss company organizational structure
- Review type of business, products, services
- Overview of who the customers are

Other \_\_\_\_\_

\_\_\_\_\_  
Employer/training sponsor

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

\_\_\_\_\_  
Student

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

\_\_\_\_\_  
CTE Teacher/WBL Coordinator

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Date

### Department/Position Specifics

- Explanation of work schedule
- Review of dress and conduct code
- Review of hours, breaks and lunch policies
- Location of time clock or sign-in
- Attendance requirements, including procedures for calling in when absent
- Relationship to working with other departments or co-workers

### Job Specific

- How to use the phones and office equipment
- Supplies, paper, pens, etc.
- Job description, Work-Based Learning Plan and evaluation process

### Supervisors Expectations

- Dress code including clothing, hair and jewelry
- Work performance including productivity and work habits
- Company culture

### Materials provided to intern

- Copy of personnel handbook
- Organizational charts
- Telephone directory
- Security procedures





Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# Weekly Time Log/Record of Attendance (Form #8)

Student \_\_\_\_\_

Training Title \_\_\_\_\_

Worksite Supervisor \_\_\_\_\_

Time Log for the Week of: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

	Date	Start Time	End Time	Hours Worked
Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

**Total Weekly Hours:** \_\_\_\_\_

Student please list any new tasks performed this week: \_\_\_\_\_

By signing this timesheet, you are certifying that it is correct and truthful.

\_\_\_\_\_  
Student's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Supervisor Name

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Date

\_\_\_\_\_  
Supervisor's Signature

**Attention Worksite Supervisor:**

If you have any questions or concerns, please contact:

\_\_\_\_\_  
CTE Teacher

\_\_\_\_\_  
Phone

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Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# SCSD CTE Internship Student Evaluation (Form #9)

Name \_\_\_\_\_

CTE Program \_\_\_\_\_

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ — \_\_\_\_/\_\_\_\_/\_\_\_\_\_  
Dates of Internship

\_\_\_\_\_  
Year to Graduate

Please complete this form upon completion of your internship.

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
Overall, I had a great experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was actively involved in the team meetings and felt free to express my thoughts and opinions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My mentors encouraged and responded to my questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have an increased appreciation for teamwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a greater ability to ask good questions and synthesize information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was presented with opportunities to learn by doing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I gained factual knowledge about careers throughout the internship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend this opportunity to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My time was well spent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would consider this employer as a future employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My co-workers are generally positive about work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The best thing about my experience was... \_\_\_\_\_  
\_\_\_\_\_

The worst thing about my experience was... \_\_\_\_\_  
\_\_\_\_\_

Any suggestions on how we could improve the intern experience? \_\_\_\_\_  
\_\_\_\_\_

Other comments... \_\_\_\_\_





Syracuse City School District  
725 Harrison Street, Syracuse, NY 13210

# SCSD CTE Internship Mentor Program Evaluation (Form #10)

\_\_\_\_\_  
Student Name

\_\_\_\_\_  
SCSD School

\_\_\_\_\_  
Interning Location

\_\_\_\_\_  
Supervisor/ Mentor Name

\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Date

### Internship Preparation

- Exceptional
- Adequate
- Inadequate

### Modes of Communication with SCSD Personnel

- In-Person
- Email
- Phone

### Amount of Communication with SCSD Personnel

- Exceptionally good
- Appropriate
- Too much
- Too little

Suggestions for improvement: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Return to CTE teacher: \_\_\_\_\_  
CTE Teacher Email





### **BOARD OF EDUCATION**

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### **NOTICE OF NON-DISCRIMINATION**

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Email: [CivilRightsCompliance@scsd.us](mailto:CivilRightsCompliance@scsd.us)

[Return to TOC](#)



## F. Employability Profile

*The employability profile is a record of student achievement. That may include documentation of the student's attainment of technical knowledge and work-related skills, endorsements, licenses, clinical experience, work experience, performance on core academic Regent's examinations, performance on industry based assessments, attendance, student leadership honors and achievements and other honors or accolades of student success.*

### Process

- An employability profile model is developed for the program
- A profile of student achievement is developed for each student in the program and is maintained in accordance with records and retention policies of the school district/BOCES.
- The profile of student achievement is reviewed and updated on a continuous basis by the student and the appropriate program/guidance personnel.
- The work skills to be mastered by students with disabilities should be aligned with the student's Individualized Education Program (IEP).

### Documentation

Recommendations for the employability profile model should be included in the self-study report and reviewed by the external committee.

Source: <http://www.p12.nysed.gov/cte/ctepolicy/guide.html>



# EMPLOYABILITY PROFILE

## FIRE-RESCUE



### Industry Based Skill Standards

**Proficiency Definitions**

NA = Not Applicable    1 = Introduced    2 = Trained    3 = Trained/Skilled    4 = Industry Level Certification/ Mastery

	9th	10th	11th	12th
<b>History of Fire- Rescue</b>				
Understands the historical perspective of Firefighters in the United States and where we are now in the evolution.				
<b>Firefighters</b>				
Demonstrates the basic understanding of duties of Firefighters and the different levels of the Fire Department from local to the federal level.				
<b>Companies</b>				
Identifies the differences in companies within the Fire Department. Identifies the roles and responsibilities within each company. Describes the tools and equipment different companies use.				
<b>Fire Growth/ Behavior</b>				
Understands the elements needed to produce and sustain fire. Identifies patterns in fire growth and development. Demonstrate understanding of fire extension and growth.				
<b>Building Construction</b>				
Explains the 5 types of building construction and identify the construction materials. Describe the dangers of trusses and lightweight construction. Identify fire extension patterns in various building types.				
<b>Federal Emergency Management Agency</b>				
Demonstrates an understanding in the National Incident Management System and the Incident Command System.				
<b>Physical Fitness</b>				
Exhibits knowledge of the Cooper standards both verbally and by executing the test with proper technique. Understands the bands of scoring and how Police Departments use the Cooper standards as requirements for entry or hiring.				
<b>Emergency Care, First Aid, CPR and AED</b>				
Can execute assessment of a casualty and render proper first aid or triage more than one casualty. Upon identification, can administer CPR or AED assisted intervention as needed to support life.				
<b>Drill and Ceremony</b>				
Executes basic standing, facing and marching drill movements as an individual and member of a team. Understands the reason for drill and how it builds teamwork and esprit de corps.				

	9th	10th	11th	12th
<b>HIPPA</b>				
Identifies the purpose and stipulations of HIPPA. Describes how HIPPA protects patient rights and privacy.				
<b>Scene Preservation</b>				
Understands different methods of preserving fire and emergency scenes. Identify indicators of illegal activities.				
<b>Fire Safety/Prevention</b>				
Demonstrates the ability to work with others on teaching methods of fire safety and fire prevention. Works to create new ideas and new methods of delivery of fire safety/ prevention materials.				
<b>Arson Investigation</b>				
Able to understand the different types of forensic evidence and arson indicators. Recognizes arson burn patterns. Demonstrates basic understanding of arson psychology.				
<b>Legal/ Ethical</b>				
Explains the legal protection of First Responders. Identifies the legal requirements of First Responders when dealing with patients or property. Discuss ethical dilemmas that First Responders face.				
<b>HazMat</b>				
Able to identify various HazMat incidents and describe the first steps in response to such. Operates on a HazMat scene at the Operations level. Receive HazMat Operations certification.				
<b>WMD/ IED/ Drug labs</b>				
Demonstrates knowledge of indicators of IEDs and Drug Labs. Able to describe responses to scenes of IEDs and Drug Labs. Describes terrorist indicators. Receives IED and WMD certification				
<b>Pre-planning</b>				
Can explain different levels of response for varying emergency types. Creates and implements emergency training drills. Describes importance of pre-planning large/ unique buildings within a fire district.				
<b>Current Events and Issues (Researchability)</b>				
Identifies current issues facing the Fire-Rescue system today in terms of equipment and tactics. Is aware of how to research reports and new stories and evaluate impact using experience.				

Industry Certifications Attained	Yes
FEMA 700 NIMS	
FEMA 100 ICS	
American Heart Association 8 hour First Aid, CPR, AED	
NYS Emergency Medical Responder Licensing	
Other:	

College Credits Attained		Yes
CCC 101 - Fnds. for Coll. Succ.	3 CH	
	3 CH	
	3 CH	
<b>Total</b>		

Internships	Hours
Agency	
Agency	
Agency	



# FIRE-RESCUE EMPLOYABILITY PROFILE

Student Name: \_\_\_\_\_

School Year: \_\_\_\_\_

Absences: \_\_\_\_\_

ID Number: \_\_\_\_\_

Teacher: \_\_\_\_\_

Final Grade: \_\_\_\_\_

## Career Ready Practices / Career Development Standards

### STANDARDS DEFINITIONS

NA = Not Applicable

1 = Developing

2 = Basic

3 = Proficient

4 = Mastery

	9th	10th	11th	12th
<b>Acts as a responsible citizen/employee</b>				
Is on time and prepared, follows workplace policies, demonstrates reliability and dependability, is polite and courteous to adults and peers, demonstrates appreciation, and is reliable and consistent in their actions				
<b>Applies appropriate academic and technical skills</b>				
Demonstrates an understanding of the academic knowledge and skills associated with their trade. Technical skills are developed with academic competencies including English language arts and science that are integrated within the CTE program.				
<b>Attends to personal health and financial well-being</b>				
Recognizes the benefits of physical, mental, social, and financial well-being to the importance of that success in their career. Accepts criticism and works towards self-improvement targets on a consistent basis.				
<b>Communicates clearly, effectively, and with reason.</b>				
Is able to communicate both verbally and in writing to express ideas and obtain information. Uses appropriate vocabulary to share information both verbally and in writing as well. Demonstrates active listening skills and verbal communication.				
<b>Makes appropriate decisions</b>				
Considers the environmental, social, and economic impacts of their decisions. Understands that their actions and decisions will impact other people directly. Works independently and responds positively to new ideas and suggestions.				
<b>Demonstrates creativity and innovative thought</b>				
Demonstrates creativity and new thinking to solve workplace problems as encountered. Is creative, innovative, and is eager to explore new ways of addressing issues and challenges that are encountered.				
<b>Employs valid and reliable research strategies</b>				
Seeks information to develop a deeper understanding of issues encountered. Uses technology as a tool to research, organize, and evaluate information critically incompetently. Interprets information and draws conclusions based on best analysis.				
<b>Uses critical thinking skills and demonstrates perseverance</b>				
Demonstrates problem-solving skills through the use of creative thinking, decision-making, and adaptability. Effectively reasons through difficult situations, and makes decisions even when faced with complex or challenging problems.				

	9th	10th	11th	12th
<b>Models integrity, ethical behavior, and leadership</b>				
Is accountable and transparent in all of their work and assignments. Consistently exhibits ethical behavior, and commitment to completing tasks as assigned. Develops and demonstrates leadership skills, assuming responsibility readily.				
<b>Develops and implements a Career Plan</b>				
Develops a career plan based on understanding of their personal goals and the career pathways that aligns to them. Develops resumes, cover letters, and examples of best work to aid in the job seeking process and/or entrepreneurial goals.				
<b>Uses technology to enhance productivity</b>				
Demonstrates an understanding of the use of technology related to their career pathway. Continually develops their ability to adapt to changing work environments using technology, including new tools and their associated applications.				
<b>Works as a productive and respectful team member</b>				
Actively participates as a member of a team recognizing and appreciating others skills and abilities. Adds to the collective value of the team, and invigorates others to add to the collective efforts and goals.				
<b>Demonstrates reliability and dependability</b>				
Regardless of tasks given, demonstrates reliable and dependable behaviors to meet the expectations as defined. Attendance and levels of participation meet expectations consistently. Take on additional responsibilities without prompting.				
<b>Arrives on time and is prepared to work</b>				
Consistently demonstrates promptness, reliability, and commitment to reporting for classes, work site experiences, and other assignments as defined. Reports prepared for work or education as requirements dictate, meets attendance requirements.				
<b>Demonstrates safe working habits</b>				
When engaging in worksite situations or learning labs, uses tools and equipment safely, observes general safety guidelines for material handling, and meets the expectations of maintaining a safe work environment for others.				
<b>Demonstrates problem solving skills</b>				
Addresses problems encountered using effective problem-solving strategies. Works to define potential solutions to problems, identifies and implements the best solution based on the information gathered and their skill and knowledge.				

Earned Technical Endorsement on Diploma

YES

NO

Industry Credential(s) Awarded See Reverse Side

Special Recognitions or Scholarships \_\_\_\_\_

Student Leadership Organization \_\_\_\_\_