

Syracuse City School District

Career and Technical Education Program

Fire Rescue Pathway

Summary Overview



Pathway Overview

The Fire Rescue program at PSLA is designed to provide students with the knowledge, skills, and experience of the field of firefighting that will prepare them pursue careers as firefighters, other disciplines in the fire science field. Students will become familiar with the procedures, equipment, and technologies used by fire departments and will learn how fire departments successfully fight live fires, address hazardous-materials (Hazmat) incidents, and conduct search-and-rescue operation. As students progress through the program, they will continuously review and practice the knowledge and skills from each year to reinforce their learning and abilities. The program emphasizes effective fire awareness, tactics, and operations, qualities necessary for fire rescue professionals and the development of skills that students can build on to assume a contributing role in the delivery of fire protection services. Students will compare career field and related careers to develop a personal growth plan to develop the teamwork and leadership skills necessary for working the fire rescue field. Students will study laws, ordinances, regulations, and organizational rules that govern emergency fire management and will practice response procedures in order to respond to both small and catastrophic emergency incidents. Students will have the opportunity to become certified in American Heart Association CPR, First Aid and AED, OSHA 10, as well as FEMA Emergency Management Institute NIMS (National Incident Management System) Certification for ICS-100 and ICS-700. Throughout the program students will be able to interact with local fire rescue professional through Career Coaching, and job shadowing experiences. Students who 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 for graduates from the program include firefighter, fire protection professional, industrial fire safety professional and fire investigator.

Course Calendar

Level	Quarter	Units of Study
100 9th Grade	1	• Introduction to Fire Rescue Pathway • Health and Fitness* • Career Exploration: ○ Career Opportunities in Fire Rescue ○ Firefighter Qualities and Attributes ○ Legal and Ethical Issues • Work-Based Learning: Career Coaching, Job Shadowing
	2	• Fire Department Organization • Fire Department Communication • Introduction to Fire Dynamics and the Science of Fire • Work-Based Learning: Career Coaching, Job Shadowing
	3	• Introduction to Fire Dynamics and the Science of Fire (Continued) • Fire Safety: PPE and SCBA • Fire Extinguishers • Work-Based Learning: Career Coaching, Job Shadowing
	4	• Introduction to Fire Rescue Tools: Ladders and Ropes • Introduction to Search and Survival • Public Outreach and Education • Work-Based Learning: Career Coaching, Job Shadowing • Final Review and Assessment
200 10th Grade	1	• Class Expectations and Team Building Activities • Health and Fitness* • Fire Safety and Firefighter Personal Protective Equipment • Ground Ladders • Introduction to Forcible Entry and Ventilation • Work-Based Learning: Career Coaching, Job Shadowing
	2	• Hoselines, Hydrants and Fire Streams • Ropes and Knots • Work-Based Learning: Career Coaching, Job Shadowing
	3	• Fire Dynamics and the Science of Fire • Building Construction and Fire Protection Systems • Work-Based Learning: Career Coaching, Job Shadowing
	4	• Incident Command System (ICS) 100 and 700 • Introduction to Hazardous Materials • Property Conservation, Scene Preservation, Fire Origin and Cause • Vehicle Fires • Work-Based Learning: Career Coaching, Job Shadowing • Final Review and Assessment

Level	Quarter	Units of Study
300 11th Grade	1	• Orientation and Review • Fire Service and Firefighter Safety • Health and Fitness* • Firefighter Personal Protective Equipment • Fire Dynamics • Portable Fire Extinguishers • Building Construction • Communications • Scene Size-Ups • Work-Based Learning: Career Coaching, Job Shadowing
	2	• Ground Ladders • Ropes and Knots • Structural Search and Rescue • Analyzing the Incident • Personal Protective Equipment, Product Control, and Decontamination • Fire Origin and Cause Determination • Work-Based Learning: Career Coaching, Job Shadowing
	3	• Overhaul, Property Conservation, and Scene Preservation • National Incident Management System-Incident Command Structure: NIMS 700 and NIMS 100 Review • Fire Hose • Fire Suppression • Forcible Entry • Tactical Ventilation • Hose Operations and Hose Streams • Work-Based Learning: Career Coaching, Job Shadowing • Fire Suppression Review, Vehicle Fires • Survival Skills
	4	• Incident Scene Operations • Action Options and Response Objectives • Structural Fire Skill Review • First Aid Provider: CPR, First Aid and AED • Work-Based Learning: Career Coaching, Job Shadowing • OSHA Certification and Civil Service Test Preparation • Review and Final Exam

*Health and Fitness Learning Targets and Assessments continue throughout the school year.

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



Pathway Overview

The Fire Rescue program at PSLA is designed to provide students with the knowledge, skills, and experience of the field of firefighting that will prepare them pursue careers as firefighters, other disciplines in the fire science field. Students will become familiar with the procedures, equipment, and technologies used by fire departments and will learn how fire departments successfully fight live fires, address hazardous-materials (Hazmat) incidents, and conduct search-and-rescue operation. As students progress through the program, they will continuously review and practice the knowledge and skills from each year to reinforce their learning and abilities. The program emphasizes effective fire awareness, tactics, and operations, qualities necessary for fire rescue professionals and the development of skills that students can build on to assume a contributing role in the delivery of fire protection services. Students will compare career field and related careers to develop a personal growth plan to develop the teamwork and leadership skills necessary for working the fire rescue field. Students will study laws, ordinances, regulations, and organizational rules that govern emergency fire management and will practice response procedures in order to respond to both small and catastrophic emergency incidents. Students will have the opportunity to become certified in American Heart Association CPR, First Aid and AED, OSHA 10, as well as FEMA Emergency Management Institute NIMS (National Incident Management System) Certification for ICS-100 and ICS-700. Throughout the program students will be able to interact with local fire rescue professional through Career Coaching, and job shadowing experiences. Students who 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 for graduates from the program include firefighter, fire protection professional, industrial fire safety professional and fire investigator.

Course Description

In this introductory course, students will become aware of the knowledge and skills required to be successful in the broad field of fire prevention and suppression. Students will begin to develop the personal qualities and attributes necessary for handling the challenges and demands of fire protection, with a special emphasis on health and fitness. Students will explore career opportunities in fire rescue, as well as the legal and ethical issues in the field. Students will learn about the how fire departments are organized and how fire rescue personnel communicate within their organization and with other agencies. Students will study the science of fire and all the factors that affect the growth and suppression of fire. There will be an emphasis on fire safety including the proper use of personal protective equipment and the maintenance and use of fire extinguishers. Students will be introduced to some of the tools and search and survival techniques that are used by fire rescue professionals. Students will learn about and participate in public outreach and education programs on fire prevention and fire safety in local schools. Throughout the program, students will participate as a team member in weekly health and fitness exercises to improve their physical and mental health.

Work-Based Learning

Students will be connected with working fire rescue professionals in the community through guest speakers, Career Coaching, field trips, and job shadowing leading to further opportunities for direct job training and real-world experience. Students will create and maintain a portfolio of their work-based learning experiences throughout the program to document the development of their skills.

Additional Learning Opportunities

- **Micro-credentials:** Students may pursue learning experiences and credentials depending on the requirements of the projects that they are involved in. Some examples for this pathway include, but are not limited to:
 - OSHA-10 General Certification
 - Other relevant certifications as they become available through industry collaborations, teacher certifications and student interest.
- **Summer Bridge Enrichment:** Students will have the opportunity to participate in cross-curricular Summer Bridge programs to enhance and enrich their skills. Students will explore and create solutions that address authentic needs in the school and wider community with the involvement of local industry professionals. Students will build on skills learned during the school year to work collaboratively with students from other pathways and programs.

Pre-Requisites

N/A

Course Objectives

Students will:

1. Develop personal health and fitness.
2. Practice the personal and physical attributes of successful firefighters.
3. Describe career opportunities in the fire rescue field.
4. Describe legal and ethical issues relevant to fire rescue professionals.
5. Explain how fire departments are organized and how they communicate internally and with other agencies.
6. Explain the basic principles of fire science.
7. Explain the importance and basic tenets of fire safety.
8. Describe the function and demonstrate the proper use of personal protective equipment.
9. Describe and demonstrate the proper maintenance and use of a fire extinguisher.
10. Identify and describe common tools and search and survival techniques used by fire rescue professionals.
11. Apply the technical terminology of fire service.
12. Plan and participate in a public outreach and education program on fire prevention and fire safety in a local school.

Integrated Academics

N/A

Equipment and Supplies

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

Textbook

International Fire Service Training Association (IFSTA). (2018). *Essentials of Fire Fighting, 7th Edition*. Stillwater, OK: Fire Protection Publications.

Grading

20%	Tests
15%	Quizzes
15%	Classwork
10%	Homework
20%	Participation
20%	Health and Fitness Grade

Additional Course Policies

Students must receive a standard sports physical for entry into this course. Students are required to follow all classroom and training safety rules. Students must participate in weekly Health and Fitness exercises.

Course Calendar

Quarter	Units of Study
1	• Introduction to Fire Rescue Pathway • Health and Fitness* • Career Exploration: ○ Career Opportunities in Fire Rescue ○ Firefighter Qualities and Attributes ○ Legal and Ethical Issues • Work-Based Learning: Career Coaching, Job Shadowing
2	• Fire Department Organization • Fire Department Communication • Introduction to Fire Dynamics and the Science of Fire • Work-Based Learning: Career Coaching, Job Shadowing
3	• Introduction to Fire Dynamics and the Science of Fire (Continued) • Fire Safety: PPE and SCBA • Fire Extinguishers • Work-Based Learning: Career Coaching, Job Shadowing
4	• Introduction to Fire Rescue Tools: Ladders and Ropes • Introduction to Search and Survival • Public Outreach and Education • Work-Based Learning: Career Coaching, Job Shadowing • Final Review and Assessment

* Health and Fitness Learning Targets and Assessments continue throughout the school year.

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	CCTC Standards	NYS Standards
Weeks 1-2 Introduction to Fire Rescue Pathway	- What are the expectations for the fire rescue classroom? - What is the mission of the fire service? - What is the role of fire rescue services in the community and society? - How has the field of fire rescue been influenced by past events?	- Explain classroom expectations. - Explain the mission of the fire service. - Identify and describe the role of fire rescue in the community and society. - Describe how fire rescue has been influenced by past events.	Written - Research Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,7,10,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,8	Science
Weeks 3-4 Health and Fitness (*Health and Fitness Learning Targets and Assessments continue throughout the year)	- What fitness and physical characteristics are required of fire rescue personnel? - What does physical fitness mean as it relates to a fire rescue worker's job performance? - What is meant by personal health? - What are the components of a healthy lifestyle and how do they affect fire rescue employees? - What lifestyle choices negatively affect health? - What is the importance of being physically and mentally fit?*	- Describe the physical demands of fire rescue workers. - Explain the concept of a personal healthy lifestyle. - Describe proper nutrition. - Identify nutrition needs and food sources. - Identify healthy choices and explain how selections impact overall wellness and health. - Describe the process of decision making for developing a safe and healthy lifestyle. - Recognize harmful choices related to nutrition, sleep, drug, and alcohol use. - Assess personal fitness levels and determine readiness for fire rescue work. - Identify individual baseline levels for personal fitness. - Improve fitness levels and work as a member of a cohesive unit/team.*	Written - Self-Assessment - Journal: Food Intake and Physical Activity - Data: Baseline Fitness - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Fitness Tests - Weekly Physical Fitness Training Demonstrating Increase from Baseline Level*	Career Ready Practices CRP 1,2,4,8,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 3,5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 4,5	Science
Weeks 5-6 Career Exploration: Career Opportunities in Fire Rescue	- What career opportunities are available in the fire rescue field? - What are the training/ education/certifications required for different careers within the field?	- Distinguish different careers within the fire rescue field. - Explain the roles, responsibilities, educational requirements, and wages for different careers within the fire rescue field.	Written - Research Project: Fire Rescue Careers - Self-Assessment - Professional Portfolio Performance - Class Presentation: Fire Rescue Careers - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,7,8,10,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 8	Science
Weeks 7			Written	Career Ready Practices CRP 1,2,4,7,8,10,11	ELA 9-10R 1,2,4,7,8,9

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Career Exploration: Firefighter Qualities and Attributes	- What personal qualities do fire rescue personnel need to possess? - How can these personal qualities be assessed and developed?	- Identify and describe personal characteristics needed for fire rescue workers. - Identify and create a profile of personal qualities to be developed during the fire rescue program, including: - Integrity: honesty, trustworthiness, reliability, and accountability. - Tolerance and respect for diversity. - Flexibility in adapting to change. - Courage. - Confidence and resilience. - Teamwork. - Effective communication and interpersonal skills. - Critical thinking and problem-solving skills. - Situational awareness. - Commitment to excellence. - Awareness of public image.	- Research Project: Personal Attributes - Self-Assessment: Personal Attributes - Rubric: Personal Qualities to Be Developed - Professional Portfolio Performance - Class Presentation: Personal Profiles of Fire Rescue Workers - Teacher Observation Checklist		9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 8	Science
Weeks 8-9 Career Exploration: Legal and Ethical Issues	- What current legal and ethical issues affect fire rescue personnel? - What is the importance of record keeping and data collection for fire rescue personnel? - What guidelines should fire rescue personnel follow to protect themselves from legal action? - How do HIPAA, Patients' Rights and ADA impact the fire rescue career field? - What is the impact of the Good Samaritan Act on fire rescue personnel? - What does the term ethics mean? - What is an ethical decision? - Why should ethics be a consideration for fire rescue personnel?	- Explain current legal and ethical issues relevant to fire rescue personnel. - Explain the responsibilities of record keeping and data collection in fire rescue and why these are important. - Analyze HIPAA regulations, Patients' Rights, and the American with Disabilities Act and their relevance to the fire rescue position. - Examine the Good Samaritan Act and how it affects the fire rescue personnel in providing medical services. - Predict how ethical decisions impact fire rescue personnel.	Written - Research Project: Current Legal Issues in the Fire Rescue Field - Summary: Patients' Right Documents and What They Protect - Assignment: HIPAA Case Violation - Assignment: Personal Statement of Ethical Behavior - Case Study: Challenge to Fire Rescue Personnel Under the Good Samaritan Act - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,8,10,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 8	Science
Week 10 Work-Based Learning:	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written - Career Coaching Self-Assessment - Job Shadow Reflection	Career Ready Practices CRP 1,2,4,8,10	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Career Coaching, Job Shadowing			- Professional Portfolio - Performance - Class Presentations - Teacher/Mentor Observation Checklist	Cluster Standards LW 5,6 Pathway Standards LW-EFM 1,8	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7 Science
Weeks 11-12 Fire Department Organization	- What are the different types of companies found in a fire department? - What are their roles and responsibilities? - What is meant by the chain of command and how is it applied in companies and battalions?	- Describe how fire departments are organized. - Examine the way a fire department is divided into various companies. - Analyze each company's tasks when on an emergency response. - Describe the methods in which companies interact and work independently during a fire rescue event. - Explain the advantages and disadvantages for each company to have its specialized tasks. - Explain the meaning of chain of command and the ways it impacts communication in companies and battalions.	Written - Research Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,7,11 Cluster Standards LW 1,4 Pathway Standards LW-EFM 1,7	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6 Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7 Science
Weeks 13-14 Fire Department Communication	- Why are communication skills critical for fire personnel? - What are some barriers to effective communication? - How can language and culture impact the way fire rescue workers communicate? - How do fire departments interact with other organizations and agencies? - What are the procedures for receiving nonemergency calls? - What types of communications systems and equipment are used to receive and process emergency calls? - What are the procedures for receiving and dispatching emergency calls? - What equipment and procedures are used for internal fire department communications?	- Explain the importance of communication among members of the fire rescue team. - Identify of barriers to effective communication. - Define diversity and explain how it can affect communication in emergency situations. - Explain ways that fire departments may interact with other organizations and agencies. - Explain the procedures for receiving nonemergency calls. - Describe the types of communications systems and equipment used to receive and process emergency calls. - Explain the procedures for receiving and dispatching emergency calls. - Describe radio equipment and procedures used for internal fire department communications. - Explain how to use a portable radio for routine and emergency traffic.	Written - Research Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Role Play: Responses to Non-Emergency and Emergency Calls	Career Ready Practices CRP 1,2,4,8,11 Cluster Standards LW 1,4 Pathway Standards LW-EFM 1,3	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6 Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7 Science
Weeks 15-23 Introduction to Fire Dynamics	What environmental changes impact the behavior of a fire?	Explain the basic principles of fire science.	Written Research Project	Career Ready Practices CRP 1,2,4,8,10,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
and the Science of Fire Work-Based Learning: Career Coaching, Job Shadowing	- What are the different types of fires? - Why is it important for firefighters to know and understand the characteristics of fire types? - What is important to know about how a fire progresses and is controlled? - What do firefighters need to do to stay safe during different types of fire? - What can be learned from fire rescue professionals?	- Describe how thermal energy impacts fire behavior. - Explain the function of fuel within the combustion process. - Explain the function of oxygen within the combustion process. - Explain the self-sustained chemical reaction involved in flaming combustion. - Define fire triangle and fire tetrahedron. - Differentiate among the stages of fire development. - Explain how firefighting operations can influence fire behavior in a structure. - Describe how building construction and layout affects fire development. - Explain the special conditions that occur during a fire's growth such as flameover, rollover, flashover, thermal layering, and backdraft. - Describe methods of heat transfer such as conduction, convection, and radiation. - Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	- Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Presentation - Teacher/Mentor Observation Checklist		9-10L 1,2,3,4,5,6
				Cluster Standards LW 2,5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,8,9	Science
Weeks 24-26 Fire Safety: PPE and SCBA	- What are the most important personal safety considerations for fire rescue personnel? - What are the roles of the department, the team, and the individual in firefighter safety? - What types of Personal Protective Equipment (PPE) are necessary? - What equipment is used by fire rescue workers for personal and team safety? - How is PPE correctly used and maintained? - What is a self-contained breathing apparatus (SCBA) and what is its function?	- Describe the safety issues affecting firefighters. - Describe the basic rules of personal and team safety for fire rescue personnel. - Explain the different responsibilities for safety of the department, the team, and the individual. - Explain the importance of personal and team decision making related to safety in the work environment. - Identify the different components of firefighting protective equipment and their functions. - Demonstrate the correct procedures for inspection and maintenance of PPE. - Describe the limitations of PPE in providing protection to firefighters. - Explain the physical limitations of a firefighter working in a personal protective ensemble. - Demonstrate the donning and doffing of PPE including helmet with eye protection, hood, boots, gloves, protective coat, and trousers.	Written - Assignment: Current Safety Issues for Fire Fighters - Research Project - Professional Portfolio Performance - Class Presentation: PPE - Teacher Observation Checklist - Correct Donning and Removal of PPE and SCBA	Career Ready Practices CRP 1,2,3,4,8,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,5	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		- Identify the components of a SCBA and explain their function. - Demonstrate the donning and doffing of a SCBA (non-functioning).			
Weeks 27-29 Fire Extinguishers	- What are the various types of portable fire extinguishers? - Why does each one have a different use? - What is the life of a fire extinguisher and how is it determined? - What happens to a fire extinguisher after being used on a fire? - What are the rules for fire extinguisher safety? - What are the different classes of fire? - What is the function of smoke detectors and alarms?	- Identify different types of fire extinguishers and explain where each would be used. - Identify and describe fire extinguisher characteristics and operations. - Explain the proper care and maintenance of fire extinguishers. - Identify the types of fires and the materials involved in each class of fire. - Identify the appropriate fire extinguisher for each class of fire. - Describe and demonstrate the operation of fire extinguishers using Pull Aim Squeeze Sweep (PASS). - Participate in schoolwide fire extinguisher inspection. - Describe the correct installation, replacement, and maintenance of smoke detectors and alarms. - Practice changing batteries in the smoke detector.	Written - Identification: Types of Extinguishers - Test: Types, Care, and Use of Fire Extinguishers - Self-Assessment - Professional Portfolio Performance - Class Presentation: Types and Proper Use of Fire Extinguishers - Teacher Observation Checklist - Schoolwide Fire Extinguisher Inspection	Career Ready Practices CRP 1,2,3,4,8,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,5	Science
Week 30 Work-Based Learning: Career Coaching, Job Shadowing	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Presentations - Teacher/Mentor Observation Checklist	Career Ready Practices CRP 1,2,4,8,10	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,8	Science
Weeks 31-32 Introduction to Fire Rescue Tools: Ladders and Ropes	- How do fire rescue personnel decide which ladders to use? - What safety practices are used when working with a ladder? - What types of ropes and knots are used in the fire service? - How are ropes and knots used in fire rescue situations?	- Identify the parts of ladders and explain their construction. - Explain the selection and proper use of ladders in a rescue. - Explain the various rope construction methods and their characteristics. - Identify different types of knots used in firefighting and what they are used for, e.g., overhand knot, clove hitch and figure eight knot.	Written - Identification: Types of Ladders and Components - Quiz: Rope and Knot Identification - Self-Assessment - Professional Portfolio Performance - Class Presentation: Demonstration of Tying Specific Knots - Teacher Observation Checklist	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,5	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Weeks 33-34 Introduction to Search and Survival	- How can firefighters remove themselves from a dangerous situation? - How does a firefighter search and remove for victims?	- Explain best practices to ensure firefighter survival during firefighting operations. - Describe structural search and rescue operations. - Describe search techniques for victims. - Describe victim removal methods. - Demonstrate proper methods for lifting and moving victims.	Written - Quiz: Search Techniques - Self-Assessment - Professional Portfolio Performance - Class Presentation: Lifting and Moving Victims - Teacher Observation Checklist	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,5,9	Science
Weeks 35-37 Public Outreach and Education	- What is the importance of fire and life safety programs in the community.? - What is the role of firefighters in presenting fire and life safety programs? - What important information should be included in a fire and life safety presentation? - How can the effectiveness of fire and life safety education programs be evaluated?	- Explain the importance of fire and life safety programs. - Explain the role of a firefighter with regard to fire and life safety presentations. - Explain ways to evaluate the effectiveness of fire and life safety education programs. - Participate in a fire and life safety presentation including the following information: - Stop, drop, and roll when clothes are on fire. - Crawl low under smoke. - Plan and practice a home escape plan. - Importance of a closed door to prevent heat and smoke travel. - Alert others to an emergency. - Call the fire department. - Test and maintain residential smoke alarms.	Written - Project: Fire and Life Safety Presentation - Self-Assessment - Professional Portfolio Performance - Presentation: Fire and Life Safety - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,8,10,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,13	Science
Week 38 Work-Based Learning: Career Coaching, Job Shadowing	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Presentations - Teacher/Mentor Observation Checklist	Career Ready Practices CRP 1,2,4,8,10	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,8	Science
Weeks 39-40 Final Review and Assessment	- What knowledge and skills will be assessed? - What is the importance of being physically and mentally fit?*	- Review knowledge and skills learned throughout the year. - Prepare for Final Assessments.	Written - Self-Assessment - Written Final Exam - Professional Portfolio Performance	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3,4	Literacy 9-10RST 1,2,4,7,8,9

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
			• Teacher Observation Checklist • Skill Based Final Exam • Health and Physical Fitness Assessment	Pathway Standards LW-EFM 1,2,3,4,5,7,9	9-10WHST 1,2,5,6,7 Science

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



Pathway Overview

The Fire Rescue program at PSLA is designed to provide students with the knowledge, skills, and experience of the field of firefighting that will prepare them pursue careers as firefighters, other disciplines in the fire science field. Students will become familiar with the procedures, equipment, and technologies used by fire departments and will learn how fire departments successfully fight live fires, address hazardous-materials (Hazmat) incidents, and conduct search-and-rescue operation. As students progress through the program, they will continuously review and practice the knowledge and skills from each year to reinforce their learning and abilities. The program emphasizes effective fire awareness, tactics, and operations, qualities necessary for fire rescue professionals and the development of skills that students can build on to assume a contributing role in the delivery of fire protection services. Students will compare career field and related careers to develop a personal growth plan to develop the teamwork and leadership skills necessary for working the fire rescue field. Students will study laws, ordinances, regulations, and organizational rules that govern emergency fire management and will practice response procedures in order to respond to both small and catastrophic emergency incidents. Students will have the opportunity to become certified in American Heart Association CPR, First Aid and AED, OSHA 10, as well as FEMA Emergency Management Institute NIMS (National Incident Management System) Certification for ICS-100 and ICS-700. Throughout the program students will be able to interact with local fire rescue professional through Career Coaching, and job shadowing experiences. Students who 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 for graduates from the program include firefighter, fire protection professional, industrial fire safety professional and fire investigator.

Course Description

In this course, students will continue to practice and reinforce the knowledge and skills from Fire Rescue 100 and will be introduced to some of the specific skills and training required for Basic External Firefighting Operations (BEFO) and Hazardous Materials First Responder Operations (HMFRO). Students will continue to develop their skills in donning and doffing of PPE and SCBA and will have hands-on experience with the tools and equipment for firefighting including ladders, and ropes, and will learn about the tools and techniques for forcible entry and ventilation. Students will also begin to learn about and practice with hoselines, hydrants, nozzles, and fire streams. Students will deepen their knowledge of fire dynamics, and the principles of building construction and fire protection systems and their effects on firefighting operations. Students will learn about the purpose and structure of FEMA, NIMS, and the Incident Command System as they work on certification for ICS-100 and ICS-700. Students will be introduced to different types of hazardous materials and the procedures for containing them, as well as working on certification. Students will find out about the roles and responsibilities of firefighters and fire investigators in property conservation, fire scene preservation and fire cause determination, as well as the firefighting operation involved in attacking vehicle fires. Throughout the program, students will participate as a team member in weekly health and fitness exercises to improve their physical and mental health.

Work-Based Learning

Students will be connected with working fire rescue professionals in the community through guest speakers, Career Coaching, field trips, and job shadowing leading to further opportunities for direct job training and real-world experience. Students will create and maintain a portfolio of their work-based learning experiences throughout the program to document the development of their skills.

Additional Learning Opportunities

- **Micro-credentials:** Students may pursue learning experiences and credentials depending on the requirements of the projects that they are involved in. Some examples for this pathway include, but are not limited to:
 - OSHA-10 General Certification
 - Other relevant certifications as they become available through industry collaborations, teacher certifications and student interest.
- **Summer Bridge Enrichment:** Students will have the opportunity to participate in cross-curricular Summer Bridge programs to enhance and enrich their skills. Students will explore and create solutions that address authentic needs in the school and wider community with the involvement of local industry professionals. Students will build on skills learned during the school year to work collaboratively with students from other pathways and programs.

Pre-Requisites

FRP100: Fire Rescue 100

Course Objectives

Students will:

1. Improve fitness levels and work as a member of a cohesive unit/team.
2. Demonstrate the donning and doffing of PPE and SCBA and explain their function.
3. Explain and demonstrate proper techniques for using and maintaining ladders.
4. Describe the basic principles of forcible entry.
5. Demonstrate skills in using hoselines, hydrants, nozzles, and fire streams.
6. Demonstrate skills in using ropes and knots.
7. Explain the basic principles of fire science and fire dynamics.
8. Explain the basic principles of building construction and fire protection systems and their effects on firefighting operations.
9. Explain the purpose and structure of FEMA, NIMS, and the Incident Command System.
10. Identify different types of hazardous materials and procedures for containing them and complete FEMA IS-5.A course.
11. Identify the roles and responsibilities of firefighters and fire investigators in property conservation, fire scene preservation and fire cause determination.
12. Describe the process of attacking a vehicle fire.

Integrated Academics

N/A

Concurrent Enrollment

Upon successful completion of FRP200, students will earn 3 college credits for FPT150: Principles of Emergency Services from Onondaga Community College:

Equipment and Supplies

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

Textbook

International Fire Service Training Association (IFSTA). (2018). *Essentials of Fire Fighting, 7th Edition*. Stillwater, OK: Fire Protection Publications.

Grading

20%	Tests
15%	Quizzes
15%	Classwork
10%	Homework
20%	Participation
20%	Health and Fitness Grade

Additional Course Policies

Students must receive a standard sports physical for entry into this course. Students are required to follow all classroom and training safety rules. Students must participate in weekly Health and Fitness exercises.

Course Calendar

Quarter	Units of Study
1	• Class Expectations and Team Building Activities • Health and Fitness* • Fire Safety and Firefighter Personal Protective Equipment • Ground Ladders • Introduction to Forcible Entry and Ventilation • Work-Based Learning: Career Coaching, Job Shadowing
2	• Hoselines, Hydrants and Fire Streams • Ropes and Knots • Work-Based Learning: Career Coaching, Job Shadowing
3	• Fire Dynamics and the Science of Fire • Building Construction and Fire Protection Systems • Work-Based Learning: Career Coaching, Job Shadowing
4	• Incident Command System (ICS) 100 and 700 • Introduction to Hazardous Materials • Property Conservation, Scene Preservation, Fire Origin and Cause • Vehicle Fires • Work-Based Learning: Career Coaching, Job Shadowing • Final Review and Assessment

* Health and Fitness Learning Targets and Assessments continues throughout the school year.

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



Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Week 1 Class Expectations and Team Building Activities	- What are the expectations for the fire rescue classroom? - What is the purpose of working together as a team? - Why do fire rescue professionals never work alone?	- Explain classroom expectations. - Explain the purpose of working together as a team in the classroom. - Explain why fire rescue professionals never work alone. - Work as a member of a cohesive team to accomplish goals. - Demonstrate the safe and proper use and handling of equipment in the fire rescue classroom.	Written - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,8,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,8	Science
Week 2 Health and Fitness (*Health and Fitness Learning Targets and Assessments continue throughout the year)	- What fitness and physical characteristics are required of fire rescue personnel? - What does physical fitness mean as it relates to a fire rescue worker's job performance? - What is meant by personal health? - What are the components of a healthy lifestyle and how do they affect fire rescue employees? - What lifestyle choices negatively affect health? - What is the importance of being physically and mentally fit?*	- Describe the physical demands of fire rescue workers. - Explain the concept of a personal healthy lifestyle. - Describe proper nutrition. - Identify nutrition needs and food sources. - Identify healthy choices and explain how selections impact overall wellness and health. - Describe the process of decision making for developing a safe and healthy lifestyle. - Identify harmful choices related to nutrition, sleep, drug, and alcohol use. - Assess personal fitness levels and determine readiness for fire rescue work. - Identify individual baseline levels for personal fitness. - Improve fitness levels and work as a member of a cohesive unit/team.*	Written - Self-Assessment - Journal: Food Intake and Physical Activity - Data: Baseline Fitness - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Fitness Tests - Weekly Physical Fitness Training Demonstrating Increase from Baseline Level*	Career Ready Practices CRP 1,2,3,4,8,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 4,5	Science
Weeks 3-5 Fire Safety and Personal Protective Equipment	- What are the most important personal safety considerations for fire rescue personnel? - What are the general guidelines for operating safely at structural fire scenes? - What are the types and uses of personal protective equipment (PPE) worn by firefighters? - How is PPE inspected, cleaned, and maintained?	- Describe the safety issues affecting firefighters. - Describe the basic rules of personal and team safety for fire rescue personnel. - Summarize general guidelines for operating safely at structural fire scenes. - Describe the various types and uses of personal protective equipment (PPE) worn by firefighters.	Written - Research Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on PPE Use/Handling: Donning and Doffing	Career Ready Practice CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,5	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What are the conditions that require the use of respiratory protection equipment? - What is a self-contained breathing apparatus (SCBA)? - What are the components of a SCBA and what are their function? - What are the procedures for donning and doffing SCBA? - What are the limitations of PPE?	- Describe the inspection, cleaning, and maintenance of PPE. - Demonstrate the donning and doffing of PPE including helmet with eye protection, hood, boots, gloves, protective coat, and trousers. - Describe conditions that require the use of respiratory protection equipment - Identify the components of a SCBA and explain their function. - Demonstrate the donning and doffing of a SCBA (non-functioning). - Describe the limitations of PPE in providing protection to firefighters. - Explain the physical limitations of a firefighter working in a personal protective ensemble.			
Weeks 6-7 Ground Ladders	- What are the different types of ladders? - What are the parts of a ladder? - What is the process of cleaning, inspecting, and maintaining a ladder? - What are safe practices for using ladders? - What is the process of carrying a ladder? - What is the proper procedure for placing a ground ladder? - What are ways to secure a ground ladder? - What are methods for raising and lowering a ladder? - What are the methods to safely work from a ladder? - What are methods to assist a victim down a ladder?	- Differentiate among types of ladders. - Identify the parts of a ladder. - Identify the materials used in ladder construction and their features. - Identify and select a ladder for a given task. - Describe the process of cleaning, inspecting, and maintaining a ladder. - Describe safe practices for using ladders. - Describe the process of carrying a ladder. - Describe the proper procedure for placing a ground ladder. - Describe ways to secure a ground ladder. - Describe methods for raising and lowering a ladder. - Describe how to safely work from a ladder. - Describe methods to assist a victim down a ladder. - Explain and demonstrate proper ladder climbing techniques while transporting tools and equipment.	Written - Research Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Ladder Use/Handling: Cleaning, Inspection, Maintenance, Carrying, Raising, Lowering and Repositioning	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,5	Science
Weeks 8-9 Introduction to Forcible Entry and Ventilation	- What are the basic principles of forcible entry? - What kind of tools are used for forcible entry?	- Describe the basic principles of forcible entry. - Describe forcible entry tools. - Explain considerations for forcible entry tool safety.	Written - Self-Assessment - Professional Portfolio Performance - Class Presentation	Career Ready Practice CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards	Literacy

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What are the considerations for forcible entry tool safety? - How are forcible entry tools carried? - How are forcible entry tools cleaned and maintained? - What are the methods of forcing entry through doors and windows? - What are the methods for breaching walls? - Why is tactical ventilation performed at a structure fire? - What are the safety considerations related to tactical ventilation? - What tools and equipment are used for ventilation? - What is horizontal ventilation? - What is vertical ventilation? - What are the considerations related to the ventilation of basements and other special compartments?	- Explain how to carry forcible entry tools. - Describe how to clean and maintain forcible entry tools - Demonstrate methods for forcing entry through doors and windows. - Describe methods for breaching walls. - Identify types of forcible entry tools. - Explain why tactical ventilation is performed at a structure fire. - Describe safety considerations related to tactical ventilation. - Describe ventilation tools and equipment. - Describe horizontal ventilation. - Describe vertical ventilation. - Describe considerations related to the ventilation of basements and other special compartments.	- Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: Cleaning, Inspection, Maintenance of Forcible Entry Tools, Forcible Entry Through Door, Lock, Window, Wood-Framed Wall	LW 1,2,3 Pathway Standards LW-EFM 1,2,4,5,9	9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7 Science
Week 10 Work-Based Learning: Career Coaching, Job Shadowing	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Class Presentations - Teacher/Mentor Observation Checklist	Career Ready Practices CRP 1,2,4,8,10 Cluster Standards LW 5,6 Pathway Standards LW-EFM 1,8	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6 Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7 Science
Week 11-17 Hoselines, Hydrants and Fire Streams	- What are the characteristics of fire hose? - How is fire hose inspected, cared for, and maintained? - What are different methods of rolling hose? - What are hose loads? - What are the methods of supplying water for firefighting operations? - What are the methods used to deploy fire hose? - What are the methods of advancing hoselines?	- Describe characteristics of fire hose. - Identify and describe the construction of fire hoses and couplings. - Describe the inspection, care, and maintenance of fire hose. - Explain methods of rolling hose. - Describe hose loads. - Describe methods of advancing hoselines. - Demonstrate the methods of connecting fire hose couplings. - Describe methods of supplying water for firefighting operations.	Written - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Hose Use/Handling: Inspection, Cleaning, and Maintenance; Making Hose Rolls; Coupling and Uncoupling; Advancing a Hose Load; Operating Small and Large	Career Ready Practices CRP 1,2,3,4,8,11,12 Cluster Standards LW 1,2,3 Pathway Standards LW-EFM 1,2,4,5,9	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6 Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7 Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What are the different types of hose streams and nozzles? - How are different types of hoselines, and nozzles?	- Describe the operation of fire hydrants such as fully opened fire hydrants and closed fire hydrants. - Operate a hydrant. - Describe different types and uses of fire streams and hoses. - Identify various types of nozzles and their components. - Operate various fire streams.	Hoselines Making Hydrant Connections; Operating Different Hose Nozzles		
Weeks 18-19 Ropes and Knots	- What types of ropes and knots are used in the fire service? - How are ropes and knots used in fire rescue situations? - What are the various materials and methods used to construct ropes? - What is the difference between life safety rope and utility rope? - What are the procedures for inspecting, cleaning, and maintaining ropes? - What are different types of knots? - What is the procedure for hoisting various tools and equipment? - How are ropes and knots used during rescues and at other emergencies?	- Describe different types of ropes and knots used in firefighting and what they are used for. - Explain the various rope construction methods and their characteristics. - Differentiate between life safety rope and utility rope. - Describe the various materials and methods used to construct ropes. - Describe the procedures for inspecting, cleaning, and maintaining ropes. - Identify types of knots. - Describe the procedure for hoisting various tools and equipment. - Explain how ropes and knots are used during rescues and at other emergencies.	Written - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Rope Use/Handling: Inspection, Cleaning, And Storage; Overhand Knot, Clove Hitch, Figure-Eight Knot; Hoisting Equipment	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,3,4,5,9	Science
Week 20 Work-Based Learning: Career Coaching, Job Shadowing	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Class Presentations - Teacher/Mentor Observation Checklist	Career Ready Practices CRP 1,2,4,8,10	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,8	Science
Weeks 21-24 Fire Dynamics and the Science of Fire	- What are the basic principles of fire science? - What are the different types of fires? - Why is it important for firefighters to know and understand the characteristics of fire types?	- Explain the basic principles of fire science. - Explain the different types of fires. - Explain why firefighters need to know and understand the characteristics of fire types. - Define fire triangle and fire tetrahedron. - Explain the function of fuel within the combustion process.	Written - Research Project: Fire Growth and Development - Quiz: Fire Dynamics - Test: Fire Dynamics - Professional Portfolio Performance - Presentation - Teacher Observation	Career Ready Practices CRP 1,2,4,7,8,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,3,4,5	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What is the difference between the fire triangle and the fire tetrahedron? - What is the function of fuel within the combustion process? - What is the function of oxygen within the combustion process? - What is the self-sustained chemical reaction involved in flaming combustion? - What are the stages of fire development? - How does thermal energy impact fire behavior? - How does fire influence the pressure of the surrounding gases? - What are different methods of heat transfer? - How can firefighting operations influence fire behavior in a structure? - How does building construction and layout affect fire development?	- Explain the function of oxygen within the combustion process. - Explain the self-sustained chemical reaction involved in flaming combustion. - Differentiate among the stages of fire development. - Describe how thermal energy impacts fire behavior. - Explain how fire influences the pressure of the surrounding gases. - Describe methods of heat transfer such as conduction, convection, and radiation. - Explain the special conditions that occur during a fire's growth such as flameover, rollover, flashover, thermal layering, and backdraft. - Explain how firefighting operations can influence fire behavior in a structure. - Describe how building construction and layout affects fire development.	Checklist		
Weeks 25-29 Building Construction and Fire Protection Systems	- What are different types of building construction? - How are floors, ceilings, and walls constructed? - How can basements and stairs impact firefighting operations? - How are different roof types constructed? - How are different types of doors constructed and operated? - How are different types of windows constructed and operated? - How do different construction types effect fire growth? - Why are certain construction types more dangerous than others for firefighters? - How does building construction change the way an attack is made on a fire?	- Differentiate among types of building construction. - Describe the construction of floors, ceilings, and walls. - Explain how basements and stairs may impact firefighting operations. - Compare the construction of different roof types. - Describe the construction and operation methods of different types of doors. - Describe the construction and operation methods of different types of windows. - Predict a fire's growth and development according to type of building construction and explain why certain construction types are more dangerous than others for firefighters. - Explain how building construction can change the way an attack may be made on a fire.	Written - Quiz: Building Construction - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,7,8,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,4,5	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What is the importance of fire protection systems to help preserve life and property? - What are the types, components, and valve types of sprinkler systems? - What are standpipe systems?	- Explain the importance of fire protection systems to help preserve life and property. - Identify types, components, and valve types of sprinkler systems. - Identify standpipe systems and connections.			
Week 30 Work-Based Learning: Career Coaching, Job Shadowing	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Presentations - Teacher/Mentor Observation Checklist	Career Ready Practices CRP 1,2,4,8,10	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,8	Science
Weeks 31-32 NIMS Incident Command System (ICS) 100 and 700	- What are NIMS and FEMA? - How does ICS affect the duties of an firefighter and who is required to have ICS Certification? - What are the key concepts and principles underlying NIMS? - What are the activities and methods for managing resources? - What are the characteristics of NIMS Management? - What are the principles and basic structure of the Incident Command System (ICS)?	- Describe the National Incident Management System (NIMS) and the purpose of the Federal Emergency Management Agency (FEMA). - Describe and identify key concepts and principles underlying NIMS. - Describe activities and methods for managing resources. - Describe NIMS Management characteristics. - Explain the principles and basic structure of the Incident Command System (ICS).	Written - Quiz: FEMA, NIMS, and ICS - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Completion of FEMA's ICS 100 and ICS 700 Courses	Career Ready Practices CRP 1,2,4,7,8,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3,4	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,14	Science
Weeks 33-34 Introduction to Hazardous Materials	- What is Hazmat? - What are hazardous materials? - Which agencies regulate the use and handling of hazardous materials? - What do fire rescue workers need to know to work safely with hazardous materials? - What are the hazard classes? - What is the APIE process at hazardous materials incidents? - What are the seven clues to the presence of hazardous materials?	- Define Hazmat and identify the associated regulatory agencies. - Describe materials classified as hazardous material. - Identify the physical and chemical properties of hazardous materials. - Define the hazard classes. - Explain the APIE (Assessment, Planning, Implementing and Evaluating) process at hazardous materials incidents. - Identify the seven clues to the presence of hazardous materials. - Describe general container types and their associated behaviors and hazards.	Written - Research and written reports on Hazmat and regulatory agencies - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Course Completion: FEMA IS-5.A	Career Ready Practices CRP 1,2,4,7,8,11	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3,4	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,12	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What are general container types and their associated behaviors and hazards? - What are ways that transportation placards, labels, and markings indicate the presence and hazards of hazardous materials? - What are other markings and colors that indicate the presence of hazardous materials? - What personal protective equipment is used during hazardous materials incidents? - How are Hazmat situations contained?	- Describe ways that transportation placards, labels, and markings indicate the presence and hazards of hazardous materials. - Identify other markings and colors that indicate the presence of hazardous materials. - Describe personal protective equipment used during hazardous materials incidents. - Explain how Hazmat situations are contained. - Complete FEMA IS-5.A: An Introduction to Hazardous Materials Course.			
Weeks 35-36 Property Conservation, Scene Preservation, Fire Origin and Cause	- How can firefighters help to preserve a fire scene, when their main priority is life and property safety? - What are the best methods of fire scene preservation? - What are the roles and responsibilities of firefighters and fire investigators at a fire investigation? - What is the process of determining area of origin? - What is the process of fire cause determination? - What are some considerations related to evidence preservation?	- Explain how to conserve property at a fire scene. - Describe the duties that firefighters must perform to protect and preserve a fire scene. - Identify the roles and responsibilities of firefighters and fire investigators at a fire investigation. - Explain the process of determining area of origin. - Explain the process of fire cause determination. - Describe considerations related to evidence preservation.	Written - Field Visit: Recent Fire Scene with SFD Fire Investigators - Self-Assessment - Professional Portfolio Performance - Class Presentation: Fire Scene Preservation - Teacher Observation Checklist - Protect and document evidence of fire origin and cause.	Career Ready Practices CRP 1,2,4,7,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3,4	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,4,5,9	Science
Week 37 Vehicle Fires	What is the process of attacking a vehicle fire?	Describe the process of attacking a vehicle fire.	Written - Research Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,4,5,9	Science
Week 38 Work-Based Learning:	What can be learned from fire rescue professionals?	- Participate in Career Coaching process. - Participate in Job Shadowing process with local fire rescue professionals.	Written Career Coaching Self-Assessment	Career Ready Practices CRP 1,2,4,8,10	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Career Coaching, Job Shadowing			• Job Shadow Reflection • Professional Portfolio Performance • Presentations • Teacher/Mentor Observation Checklist		9-10L 1,2,3,4,5,6
				Cluster Standards LW 5,6	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,8	Science
Weeks 39-40 Final Review and Assessment	• What knowledge and skills will be assessed? • What is the importance of being physically and mentally fit?*	• Review knowledge and skills learned throughout the year. • Prepare for Final Assessments.	Written • Self-Assessment • Written Final Exam • Professional Portfolio Performance • Teacher Observation Checklist • Skill Based Final Exam • Health and Physical Fitness Assessment	Career Ready Practices CRP 1,2,3,4,8,11,12	ELA 9-10R 1,2,4,7,8,9 9-10W 1,2,5,6,7 9-10SL 1,2,3,4,5,6 9-10L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 9-10RST 1,2,4,7,8,9 9-10WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,4,5,7,9,12,14	Science

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



Pathway Overview

The Fire Rescue program at PSLA is designed to provide students with the knowledge, skills, and experience of the field of firefighting that will prepare them pursue careers as firefighters, other disciplines in the fire science field. Students will become familiar with the procedures, equipment, and technologies used by fire departments and will learn how fire departments successfully fight live fires, address hazardous-materials (Hazmat) incidents, and conduct search-and-rescue operation. As students progress through the program, they will continuously review and practice the knowledge and skills from each year to reinforce their learning and abilities. The program emphasizes effective fire awareness, tactics, and operations, qualities necessary for fire rescue professionals and the development of skills that students can build on to assume a contributing role in the delivery of fire protection services. Students will compare career field and related careers to develop a personal growth plan to develop the teamwork and leadership skills necessary for working the fire rescue field. Students will study laws, ordinances, regulations, and organizational rules that govern emergency fire management and will practice response procedures in order to respond to both small and catastrophic emergency incidents. Students will have the opportunity to become certified in American Heart Association CPR, First Aid and AED, OSHA 10, as well as FEMA Emergency Management Institute NIMS (National Incident Management System) Certification for ICS-100 and ICS-700. Throughout the program students will be able to interact with local fire rescue professional through Career Coaching, and job shadowing experiences. Students who 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 for graduates from the program include firefighter, fire protection professional, industrial fire safety professional and fire investigator.

Course Description

In this course, students will continue to review, practice, and reinforce the knowledge and skills from Fire Rescue 100 and 200 and will expand their abilities with specific skills and training required for Basic External Firefighting Operations (BEFO) and Hazardous Materials First Responder Operations (HMFRO). Students will also be introduced to some of the specific skills and training required for Interior Firefighting Operations (IFO). Students will have the opportunity throughout the year to interact with Syracuse Fire Department instructors and equipment as they practice and are assessed on BEFO, HMFRO and IFO skills. Students will continue to develop their skills in donning and doffing of PPE and SCBA and will have hands-on experience with the tools and equipment for firefighting including ladders, and ropes, and will expand their knowledge about the tools and techniques for forcible entry and ventilation. Students will also continue to learn about and practice with hoselines, hydrants, nozzles, and fire streams. Students will continue to extend their knowledge of fire dynamics, and the principles of building construction and fire protection systems and their effects on firefighting operations. Students will practice the procedures and techniques used for exterior fire suppression. Students will review and develop a deeper understanding of the purpose and structure of FEMA, NIMS, and the Incident Command System. Students will continue to learn about different types of hazardous materials and the procedures for containing them. Students will expand their knowledge of the roles and responsibilities of firefighters and fire investigators in property conservation, fire scene preservation and fire cause determination, as well as the firefighting operation involved in attacking vehicle fires. A continued emphasis on firefighter safety and survival skills will be of paramount importance. Throughout the program, students will participate as a team member in weekly health and fitness exercises to improve their physical and mental health.

Work-Based Learning

Students will be connected with working fire rescue professionals in the community through guest speakers, Career Coaching, field trips, and job shadowing leading to further opportunities for direct job training and real-world experience. Students will create and maintain a portfolio of their work-based learning experiences throughout the program to document the development of their skills.

Additional Learning Opportunities

- **Micro-credentials:** Students may pursue learning experiences and credentials depending on the requirements of the projects that they are involved in. Some examples for this pathway include, but are not limited to:
 - OSHA-10 Certification
 -

- Other relevant certifications as they become available through industry collaborations, teacher certifications and student interest.
- **Summer Bridge Enrichment:** Students will have the opportunity to participate in cross-curricular Summer Bridge programs to enhance and enrich their skills. Students will explore and create solutions that address authentic needs in the school and wider community with the involvement of local industry professionals. Students will build on skills learned during the school year to work collaboratively with students from other pathways and programs.

Pre-Requisites

FRP100: Fire Rescue 100 and FRP200: Fire Rescue 200

Course Objectives

Students will:

1. Improve fitness levels and work as a member of a cohesive unit/team.
2. Continue to gain proficiency in the firefighting and fire rescue knowledge and skills required for Basic External Firefighting Operations (BEFO) and Hazardous Materials First Responder Operations (HMFRO).
3. Complete CPR & First Aid Certification.
4. Demonstrate the donning and doffing of PPE and SCBA and explain their function.
5. Explain and demonstrate proper techniques for using and maintaining firefighting tools and equipment.
6. Describe the basic principles of forcible entry and ventilation.
7. Demonstrate skills in using hoselines, hydrants, nozzles, and fire streams.
8. Demonstrate skills in using ropes and knots.
9. Explain the principles of fire science and fire dynamics.
10. Explain the principles of building construction and fire protection systems and their effects on firefighting operations.
11. Explain the principles and procedures of fire suppression.
12. Explain the purpose and structure of FEMA, NIMS, and the Incident Command System.
13. Identify different types of hazardous materials and procedures for containing them.
14. Identify the roles and responsibilities of firefighters and fire investigators in property conservation, fire scene preservation and fire cause determination.

Integrated Academics

- 1 CTE Integrated ELA Credit
- 1 CTE Integrated Science Credit

Equipment and Supplies

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

Textbook

International Fire Service Training Association (IFSTA). (2018). *Essentials of Fire Fighting, 7th Edition*. Stillwater, OK: Fire Protection Publications.

Grading

20%	Tests
15%	Quizzes
15%	Classwork
10%	Homework
20%	Participation
20%	Health and Fitness Grade

Additional Course Policies

Students must receive a standard sports physical for entry into this course. Students will be fit tested to use Self-Contained Breathing Apparatus (SCBA). Students are required to follow all classroom and training safety rules. Students must participate in weekly Health and Fitness exercises.

Course Calendar

Quarter	Units of Study
1	• Orientation and Review • Fire Service and Firefighter Safety • Health and Fitness* • Firefighter Personal Protective Equipment • Fire Dynamics • Portable Fire Extinguishers • Building Construction • Communications • Scene Size-Ups • Work-Based Learning: Career Coaching, Job Shadowing
2	• Ground Ladders • Ropes and Knots • Structural Search and Rescue • Analyzing the Incident • Personal Protective Equipment, Product Control, and Decontamination • Fire Origin and Cause Determination • Work-Based Learning: Career Coaching, Job Shadowing
3	• Overhaul, Property Conservation, and Scene Preservation • National Incident Management System-Incident Command Structure: NIMS 700 and NIMS 100 Review • Fire Hose • Fire Suppression • Forcible Entry • Tactical Ventilation • Hose Operations and Hose Streams • Work-Based Learning: Career Coaching, Job Shadowing • Fire Suppression Review, Vehicle Fires • Survival Skills
4	• Incident Scene Operations • Action Options and Response Objectives • Structural Fire Skill Review • First Aid Provider: CPR, First Aid and AED • Work-Based Learning: Career Coaching, Job Shadowing • OSHA Certification and Civil Service Test Preparation • Review and Final Exam

* Health and Fitness Learning Targets and Assessments continue throughout the school year.

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
FRP300: Fire Rescue 300



Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Week 1 Orientation and Review Fire Service and Firefighter Safety	- What are the classroom expectations? - What is the mission of the fire service? - How are fire departments organized? - What are the various specializations within the fire service? - What fire department SOPs, rules, and regulations affect a fire fighter? - How do fire departments interact with other organizations and agencies? - What are the roles and duties of a fire fighter? - What fire and life safety initiatives are aimed at reducing firefighter illnesses, injuries, and fatalities? - What are the general guidelines for operating safely at structural fire scenes? - What are safe practices for riding in fire service vehicles and apparatus? - What is the importance of personnel accountability systems? - What are the guidelines for operating safely at highway and roadway incidents?	- Identify and describe the uses of classroom equipment. - Demonstrate the safe and proper use and handling of equipment in the fire rescue classroom. - Explain the mission of the fire service. - Describe how fire departments are organized. - Describe the various specializations within the fire service. - Describe fire department SOPs, rules, and regulations that affect a firefighter. - Explain ways that fire departments may interact with other organizations and agencies. - Explain the roles and duties of a firefighter. - Describe fire and life safety initiatives aimed at reducing firefighter illnesses, injuries, and fatalities. - Describe the aspects of NFPA 1500 related to firefighter safety and health. - Describe fire department programs intended to reduce firefighter illnesses, injuries, and fatalities. - Summarize general guidelines for operating safely at structural fire scenes. - Summarize safe practices for riding in fire service vehicles and apparatus. - Explain the use of emergency scene lighting and equipment. - Explain the importance of personnel accountability systems. - Summarize general guidelines for operating safely at highway/roadway incidents.	Written - Officer Applications - Lab Safety Contracts - Class Contracts - Quiz - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Mount and dismount an apparatus for incident response. - Deploy and operate a portable electrical power supply unit. - Deploy lighting equipment. - Demonstrate scene management at a roadway incident using traffic and scene control devices.	Career Ready Practices CRP 1,2,3,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3,4,5,6	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,3,4,5,6,10	Science
Week 2		Describe the physical demands of fire rescue workers.	Written Self-Assessment	Career Ready Practices CRP 1,2,3,4,8,9	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Health and Fitness (*Health and Fitness Learning Targets and Assessments continue throughout the year)	- What fitness and physical characteristics are required of fire rescue personnel? - What does physical fitness mean as it relates to a fire rescue worker's job performance? - What is meant by personal health? - What are the components of a healthy lifestyle and how do they affect fire rescue employees? - What lifestyle choices negatively affect health? - What is the importance of being physically and mentally fit?*	- Explain the concept of a personal healthy lifestyle. - Describe proper nutrition. - Identify nutrition needs and food sources. - Identify healthy choices and explain how selections impact overall wellness and health. - Describe the process of decision making for developing a safe and healthy lifestyle. - Identify harmful choices related to nutrition, sleep, drug, and alcohol use. - Assess personal fitness levels and determine readiness for fire rescue work. - Identify individual baseline levels for personal fitness. - Improve fitness levels and work as a member of a cohesive unit/team.*	- Journal: Food Intake and Physical Activity - Data: Baseline Fitness - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Fitness Tests - Weekly Physical Fitness Training Demonstrating Increase from Baseline Level*		11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 2	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,4,9	Science
Week 3 Firefighter Personal Protective Equipment	- What are the types and uses of personal protective equipment (PPE) worn by firefighters? - How is PPE inspected, cleaned, and maintained? - What are the conditions that require the use of respiratory protection equipment? - What the components of SCBA (Self-Contained Breathing Apparatus)? - What are the limitations of SCBA? - What are the procedures for donning and doffing SCBA? - What are safety considerations for working in and exiting a hazardous atmosphere while wearing SCBA?	- Describe the various types and uses of personal protective equipment (PPE) worn by firefighters. - Describe the inspection, cleaning, and maintenance of PPE. - Describe conditions that require the use of respiratory protection equipment. - Identify SCBA components. - Describe SCBA limitations. - Describe the procedures for donning and doffing SCBA. - Explain the process of inspecting and cleaning SCBA. - Describe methods of refilling, replacing, and storing SCBA cylinders. - Describe safety considerations for working in and exiting a hazardous atmosphere while wearing SCBA.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Don structural PPE. - Don SCBA. - Don SCBA while seated. - Doff personal protective equipment, including SCBA, and prepare for reuse. - Inspect SCBA. - Clean and sanitize SCBA. - Fill an SCBA cylinder. - Replace an SCBA cylinder.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,3,5,6,10	Science
Weeks 4-5 Fire Dynamics	- What are the basic principles of fire science? - How does thermal energy impact fire behavior?	- Explain the basic principles of fire science. - Describe how thermal energy impacts fire behavior.	Written - Quiz - Self-Assessment - Professional Portfolio	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What is the function of fuel within the combustion process? - What is the function of oxygen within the combustion process? - What is the self-sustained chemical reaction involved in flaming combustion? - What are the stages of fire development? - How can firefighting operations influence fire behavior in a structure? - How does building construction and layout affect fire development?	- Explain the function of fuel within the combustion process. - Explain the function of oxygen within the combustion process. - Explain the self-sustained chemical reaction involved in flaming combustion. - Differentiate among the stages of fire development. - Explain how firefighting operations can influence fire behavior in a structure. - Describe how building construction and layout affects fire development.	Performance - Class Presentation - Teacher Observation Checklist - Fire Labs - Skills Based Tests on Equipment Use/Handling	Cluster Standards LW 1,2,3 Pathway Standards LW-EFM 1,3,5,6	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7 Science
Week 6 Portable Fire Extinguishers	- What are the five classifications of portable fire extinguishers? - What are the various types of portable fire extinguishers? - What is the process of selecting and using a portable fire extinguisher?	- Distinguish among the five classifications of portable fire extinguishers. - Distinguish among the various types of portable fire extinguishers. - Describe the process of selecting and using a portable fire extinguisher.	Written - Quiz - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Extinguish an incipient Class A, B, or C fire with a portable fire extinguisher.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science
Weeks 7-8 Building Construction	- What are different types of building construction? - How are floors, ceilings, and walls constructed? - How can basements and stairs impact firefighting operations? - How are different roof types constructed? - How are different types of doors constructed and operated? - How are different types of windows constructed and operated?	- Differentiate among types of building construction. - Describe the construction of floors, ceilings, and walls. - Explain how basements and stairs may impact firefighting operations. - Compare the construction of different roof types. - Describe the construction and operation methods of different types of doors. - Describe the construction and operation methods of different types of windows.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,3,5,6,10	Science
Week 9 Communications Scene Size-Ups	What are the procedures for receiving nonemergency calls?	- Explain the procedures for receiving nonemergency calls. - Describe the types of communications systems and	Written - Quiz - Project	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Work-Based Learning: Career Coaching, Job Shadowing	- What types of communications systems and equipment are used to receive and process emergency calls? - What are the procedures for receiving and dispatching emergency calls? - What radio equipment and procedures are used for internal fire department communications? - What information needs to be gathered for a scene size-up? - What can be learned from fire rescue professionals?	- equipment used to receive and process emergency calls. - Explain the procedures for receiving and dispatching emergency calls. - Describe radio equipment and procedures used for internal fire department communications. - Describe the types of information that needs to be gathered for a scene size-up. - Participate in Career Coaching process.	- Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Class Presentation - Size Up Activity - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Handle emergency and nonemergency phone calls. - Use a portable radio for routine and emergency traffic.	Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science
Weeks 10-11 Ground Ladders	- What are the parts of a ladder? - What are the different types of ladders? - What is the process of cleaning, inspecting, and maintaining a ladder? - What are safe practices for using ladders? - What is the process of carrying a ladder? - What is the proper procedure for placing a ground ladder? - What are ways to secure a ground ladder? - What are methods for raising and lowering a ladder? - What are the methods to safely work from a ladder? - What are methods to assist a victim down a ladder?	- Identify the parts of a ladder. - Differentiate among types of ladders. - Describe the process of cleaning, inspecting, and maintaining a ladder. - Describe safe practices for using ladders. - Describe the process of carrying a ladder. - Describe the proper procedure for placing a ground ladder. - Describe ways to secure a ground ladder. - Describe methods for raising and lowering a ladder. - Describe how to safely work from a ladder. - Describe methods to assist a victim down a ladder.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Clean, inspect, and maintain a ladder. - Carry a ladder using the one-firefighter low-shoulder method. - Carry a ladder using a two-firefighter carry. - Raise and lower a ladder using a one-firefighter method. - Raise and lower a ladder using a two-firefighter method. - Reposition a ladder. - Leg lock on a ground ladder. - Deploy a roof ladder on a pitched roof. - Assist a victim down a ground ladder	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science
Weeks 12-13			Written	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Ropes and Knots	- What is the difference between life safety rope and utility rope? - What are the various materials and methods used to construct ropes? - What are the procedures for inspecting, cleaning, and maintaining ropes? - How is webbing used, inspected, maintained, and stored? - What are different types of knots? - What is the procedure for hoisting various tools and equipment? - How are ropes and knots used during rescues and at other emergencies?	- Differentiate between life safety rope and utility rope. - Describe the various materials and methods used to construct ropes. - Describe the procedures for inspecting, cleaning, and maintaining ropes. - Describe how webbing is used, inspected, maintained, and stored. - Identify types of knots. - Describe the procedure for hoisting various tools and equipment. - Explain how ropes and knots are used during rescues and at other emergencies.	- Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Inspect, clean, and store rope. - Tie an overhand knot. - Tie a clove hitch. - Tie a clove hitch around an object. - Tie a figure-eight knot. - Tie a figure-eight on a bight. - Tie a figure-eight follow through. - Tie a water knot. - Hoist an axe. - Hoist a pike pole. - Hoist a roof ladder. - Hoist a dry hoseline. - Hoist a power saw.	Cluster Standards LW 1,2,3	11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Pathway Standards LW-EFM 1,2,3,5,6,10	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
					Science
Weeks 14-16 Structural Search and Rescue	- What are best practices to ensure firefighter survival during interior operations? - What are air-monitoring operations? - What are structural search and rescue operations? - What are victim removal methods? - What are MAYDAY protocols? - What are emergency evacuation methods? - What are rapid intervention crew equipment and duties?	- Explain best practices to ensure firefighter survival during interior operations. - Describe air-monitoring operations. - Describe structural search and rescue operations. - Describe victim removal methods. - Describe MAYDAY protocols. - Describe emergency evacuation methods. - Describe rapid intervention crew equipment and duties.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Enact the proper procedures for an SCBA air emergency. - Operate an air-monitoring device. - Conduct a primary or secondary search - Perform the incline drag - Perform the extremities lift/carry using the two-rescuer method - Perform the webbing drag - Transmit a MAYDAY report.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
			- Follow a hoseline or search line out as a withdrawal procedure. - Perform reduced profile maneuvers without removal of SCBA using the side technique. - Breach an interior wall. - Perform reduced profile maneuvers without removal of SCBA using the SCBA-first technique. - Disentangle from debris or wires.		
Week 17 Analyzing the Incident	- What is the APIE (Assessment, Planning, Implementing and Evaluating) process at hazardous materials incidents? - What is a hazardous materials incident? - What are ways that hazardous materials harm people? - What are states of matter as they relate to hazardous materials? - What are the physical properties that aid in identifying potential hazards and predicting behavior of hazardous materials? - What are the chemical properties that aid in identifying potential hazards and predicting behavior of hazardous materials? - What is the role of the General Hazardous Materials Behavior Model in predicting the behavior of containers? - What are the seven clues to the presence of hazardous materials? - How do preincident plans, occupancy types, and	- Explain the APIE process at hazardous materials incidents. - Define a hazardous materials incident. - Recognize ways that hazardous materials harm people. - Identify states of matter as they relate to hazardous materials. - Explain physical properties that aid in identifying potential hazards and predicting behavior of hazardous materials. - Explain chemical properties that aid in identifying potential hazards and predicting behavior of hazardous materials. - Explain the role of the General Hazardous Materials Behavior Model in predicting the behavior of containers. - Identify the seven clues to the presence of hazardous materials. - Explain how preincident plans, occupancy types, and locations may indicate the presence of hazardous materials. - Recognize general container types and their associated behaviors and hazards. - Describe ways that transportation placards, labels, and markings indicate the presence and hazards of hazardous materials. - Define the hazard classes.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Analyze a hazardous materials scenario to identify potential hazards. - Identify indicators and hazards present at a hazardous materials incident using approved reference sources.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	locations indicate the presence of hazardous materials? - What are general container types and their associated behaviors and hazards? - What are ways that transportation placards, labels, and markings indicate the presence and hazards of hazardous materials? - What are the hazard classes? - What are other markings and colors that indicate the presence of hazardous materials? - What are ways that written resources are used to identify hazardous materials and their hazards?	- Identify other markings and colors that indicate the presence of hazardous materials. - Describe ways that written resources are used to identify hazardous materials and their hazards.			
Week 18 Personal Protective Equipment, Product Control, and Decontamination	- What respiratory protection is used at hazardous materials incidents? - What types of protective clothing is worn at hazardous materials incidents? - What personal protective equipment ensembles are used during hazardous materials incidents? - What are PPE-related stresses? - What are the procedures for safely using PPE? - What are the procedures for inspection, storage, testing, maintenance, and documentation of PPE? - What are the methods of spill control? - What are the methods of leak control? - What is the difference between gross decontamination and	- Describe respiratory protection used at hazardous materials incidents. - Describe types of protective clothing worn at hazardous materials incidents. - Describe personal protective equipment ensembles used during hazardous materials incidents. - Explain PPE-related stresses. - Describe procedures for safely using PPE. - Identify procedures for inspection, storage, testing, maintenance, and documentation of PPE. - Describe methods of spill control. - Describe methods of leak control. - Differentiate between gross decontamination and emergency decontamination.	Written - Quiz - Hazmat Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Select appropriate PPE to address a hazardous materials scenario. - Don, work in, and doff a Level C ensemble. - Don, work in, and doff liquid splash-protective clothing. - Don, work in, and doff vapor-protective clothing. - Perform absorption/adsorption. - Perform damming. - Perform diking operations. - Perform diversion. - Perform retention. - Perform vapor suppression.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	emergency decontamination?		• Perform vapor dispersion. • Perform dilution. • Perform remote valve shutoff or activate emergency shutoff device. • Perform gross decontamination. • Perform emergency decontamination.		
Week 19 Fire Origin and Cause Determination (Work-Based Learning: Career Coaching, Job Shadowing	• What are the roles and responsibilities of firefighters and fire investigators at a fire investigation? • What is the process of determining area of origin? • What is the process of fire cause determination? • What are some considerations related to evidence preservation? • What can be learned from fire rescue professionals?	• Identify the roles and responsibilities of firefighters and fire investigators at a fire investigation. • Explain the process of determining area of origin. • Explain the process of fire cause determination. • Describe considerations related to evidence preservation. • Participate in Career Coaching process.	Written • Quiz • Project • Career Coaching Self-Assessment • Job Shadow Reflection • Professional Portfolio Performance • Class Presentation • Teacher Observation Checklist • Skills Based Tests on Equipment Use/Handling: • Protect and document evidence of fire origin and cause.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science
Week 20 Overhaul, Property Conservation, and Scene Preservation	• What is overhaul? • How can property be conserved at a fire scene? • What are the duties that firefighters must perform to protect and preserve a fire scene?	• Describe overhaul. • Explain how to conserve property at a fire scene. • Describe the duties that firefighters must perform to protect and preserve a fire scene.	Written • Quiz • Project • Self-Assessment • Professional Portfolio Performance • Class Presentation • Teacher Observation Checklist • Skills Based Tests on Equipment Use/Handling: • Locate and extinguish hidden fires. • Roll a salvage cover for a one-firefighter spread. • Spread a rolled salvage cover using a one-firefighter method. • Fold a salvage cover for a one-firefighter spread. • Spread a folded salvage cover using a one-firefighter method. • Fold a salvage cover for a two-firefighter spread.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
			• Spread a folded salvage cover using the two-firefighter balloon throw. • Construct and place a water chute. • Construct a catchall. • Construct a water chute and attach it to a catchall. • Cover building openings to prevent damage after fire suppression. • Clean, inspect, and repair a salvage cover.		
Weeks 21-22 National Incident Management System-Incident Command Structure NIMS 700 and NIMS 100 Review	• What is the function of each section within the NIMS-ICS organizational structure? • What is the process of establishing and transferring command of an incident? • What are the traits and values of an effective leader? • How are incidents managed? • How is an Incident Action Plan used? • What are the key concepts, principles, scope, and applicability underlying NIMS? • What are some activities and methods for managing resources? • What are the characteristics of NIMS Management? • What are the organizational structures of the Incident Command System (ICS)? • What are the functions, common models for staff organization, and activation levels of the Emergency Operations Center (EOC)? • How are the NIMS Management and other	• Describe the function of each section within the NIMS-ICS organizational structure. • Explain the process of establishing and transferring command of an incident. • Identify the traits and values of an effective leader. • Explain how incidents are managed. • Describe the use of an Incident Action Plan. • Describe and identify key concepts, principles, scope, and applicability underlying NIMS. (NIMS 700) • Describe activities and methods for managing resources. (NIMS 700) • Describe NIMS Management characteristics. (NIMS 700) • Identify and describe Incident Command System (ICS) organizational structures. (NIMS 700) • Explain Emergency Operations Center (EOC) functions, common models for staff organization, and activation levels. (NIMS 700) • Explain the interconnectivity within the NIMS Management and Coordination structures: ICS, EOC, Joint Information Systems (JIS), and Multiagency Coordination Groups (MAC Groups). (NIMS 700) • Identify and describe the characteristics of communications and information systems, effective communication, incident information,	Written • Quiz • Project • Self-Assessment • Professional Portfolio Performance • Class Presentation • Teacher Observation Checklist • Skills Based Tests on Equipment Use/Handling	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	coordination structures interconnected? - What are the characteristics of communications and information systems, effective communication, incident information, and communication standards and formats? - What are the ICS functional areas and the roles of the Incident Commander and Command Staff? - What are the General Staff roles within ICS? - How do the NIMS Management Characteristics apply to ICS for a variety of roles and discipline areas?	and communication standards and formats. (NIMS 700) - Explain the principles and basic structure of the Incident Command System (ICS). (NIMS 100) - Describe the NIMS Management Characteristics that are the foundation of the ICS. (NIMS 100) - Describe the ICS functional areas and the roles of the Incident Commander and Command Staff. (NIMS 100) - Identify the General Staff roles within ICS. (NIMS 100) - Identify how the NIMS Management Characteristics apply to ICS for a variety of roles and discipline areas. (NIMS 100)			
Week 23 Fire Hose	- What are the characteristics of fire hose? - How is fire hose inspected, cared for, and maintained? - What are different methods of rolling hose? - What are hose loads?	- Describe characteristics of fire hose. - Describe the inspection, care, and maintenance of fire hose. - Explain methods of rolling hose. - Describe hose loads.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Couple and uncouple a hose. - Inspect, clean, and maintain a hose. - Make a straight hose roll. - Make a donut hose roll. - Make a flat hose load. - Make the accordion hose load. - Make the preconnected flat hose load. - Make the triple layer hose load. - Make the minuteman hose load.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science
Week 24 Fire Suppression	What is the science behind fire suppression?	Explain the science behind fire suppression.	Written Quiz	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What are the methods for suppressing structural fires? - What is the role of firefighters with regards to supporting fire protection systems during fire suppression? - What are the duties of firefighters related to building utilities? - What is the process of attacking fires in exterior Class A materials? - What is ground cover fire attack?	- Describe methods for suppressing structural fires. - Explain the role of firefighters with regards to supporting fire protection systems during fire suppression. - Explain the duties of firefighters related to building utilities. - Describe the process of attacking fires in exterior Class A materials. - Describe ground cover fire attack.	- Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Attack an interior structure fire at ground level using a direct, indirect, or combination attack. - Attack a structure fire using a transitional attack. - Attack a structure fire above and below grade level using an interior attack. - Operate sprinkler system control valves. - Stop the flow of water from an activated sprinkler. - Turn off building utilities. - Attack a fire in exterior stacked or piled Class A materials. - Attack a fire in a small unattached structure. - Extinguish a fire in a trash container. - Attack a ground cover fire. - Construct a fire line.		11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science
Weeks 25 Forcible Entry	- What are the basic principles of forcible entry? - What kind of tools are used for forcible entry? - What are the considerations for forcible entry tool safety? - How are forcible entry tools carried? - How are forcible entry tools cleaned and maintained? - What are the methods of forcing entry through doors and windows? - What are the methods for breaching walls?	- Describe the basic principles of forcible entry. - Describe forcible entry tools. - Explain considerations for forcible entry tool safety. - Explain how to carry forcible entry tools. - Describe how to clean and maintain forcible entry tools. - Describe methods of forcing entry through doors. - Describe methods for forcing entry through windows. - Describe methods for breaching walls.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Clean, inspect, and maintain hand tools and equipment. - Force entry through an inward-swinging door. - Force entry through an outward-swinging door. - Force entry through a door lock.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
			- Force entry through a padlock. - Force entry through a window. - Force entry through a wood-framed wall (Type V construction). - Breach a masonry wall with hand tools. - Breach a metal wall with a rotary saw.		
Weeks 26 Tactical Ventilation	- Explain why tactical ventilation is performed at a structure fire? - What are the safety considerations related to tactical ventilation? - What tools and equipment are used for ventilation? - What is horizontal ventilation? - What is vertical ventilation? - What are the considerations related to the ventilation of basements and other special compartments?	- Explain why tactical ventilation is performed at a structure fire. - Describe safety considerations related to tactical ventilation. - Describe ventilation tools and equipment. - Describe horizontal ventilation. - Describe vertical ventilation. - Describe considerations related to the ventilation of basements and other special compartments.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Perform mechanical positive pressure ventilation. - Perform horizontal hydraulic ventilation. - Ventilate a flat roof. - Ventilate a pitched roof.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science
Week 27 Hose Operations and Hose Streams Work-Based Learning: Career Coaching, Job Shadowing	- Describe methods of supplying water for firefighting operations? - Describe methods used to deploy fire hose? - Describe methods of advancing hoselines? - Differentiate among types of hose streams and nozzles? - Explain how to operate different types of hoselines, nozzles, and master stream devices? - What can be learned from fire rescue professionals?	- Describe methods of supplying water for firefighting operations. - Describe methods used to deploy fire hose. - Describe methods of advancing hoselines. - Differentiate among types of hose streams and nozzles. - Explain how to operate different types of hoselines, nozzles, and master stream devices. - Participate in Career Coaching process.	Written - Quiz - Project - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Make soft-sleeve and hard-suction hydrant connections. - Connect and place a hard-suction hose for drafting from a static water source. - Deploy a portable water tank. - Make a hydrant connection from a forward lay. - Make a reverse hose lay.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
			• Advance a hose load. • Extend a hoseline. • Replace a burst hoseline. • Advance a charged hoseline using the working line drag method. • Advance a hoseline into a structure. • Advance a hoseline up or down an interior stairway. • Connect to a stairway or improvised standpipe and advance an attack hoseline onto a floor. • Advance an uncharged line up a ladder into a window. • Advance a charged attack line up a ladder into a window. • Operate a charged attack line from a ladder. • Operate a smooth bore or fog nozzle. • Operate a small hoseline using the one-firefighter method. • Operate a large hoseline for exposure protection using the one-firefighter method. • Operate a large hoseline using the two-firefighter method. • Deploy and operate a master stream device.		
Weeks 28-29 Fire Suppression Review Vehicle Fires Survival Skills	• What is the science behind fire suppression? • What are the methods for suppressing structural fires? • What is the role of firefighters with regards to supporting fire protection systems during fire suppression? • What are the duties of firefighters related to building utilities? • What is the process of attacking a vehicle fire?	• Explain the science behind fire suppression. • Describe methods for suppressing structural fires. • Explain the role of firefighters with regards to supporting fire protection systems during fire suppression. • Explain the duties of firefighters related to building utilities. • Describe the process of attacking a vehicle fire. • Describe the process of attacking fires in exterior Class A materials. • Describe ground cover fire attack.	Written • Quiz • Project • Self-Assessment • Professional Portfolio Performance • Class Presentation • Teacher Observation Checklist • Maze/Survival Activity • Skills Based Tests on Equipment Use/Handling: • Attack an interior structure fire at ground level using a direct, indirect, or combination attack.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What is the process of attacking fires in exterior Class A materials? - What is ground cover fire attack?		- Attack a structure fire using a transitional attack. - Attack a structure fire above and below grade level using an interior attack. - Operate sprinkler system control valves. - Stop the flow of water from an activated sprinkler. - Turn off building utilities. - Attack a passenger vehicle fire. - Attack a fire in exterior stacked or piled Class A materials. - Attack a fire in a small unattached structure. - Extinguish a fire in a trash container. - Attack a ground cover fire. - Construct a fire line.		
Week 30 Incident Scene Operations	- What is the process of initiating incident operations? - What is the process of transferring Command? - What are the duties of a unit or team leader during fireground operations? - What is the use of post incident reports?	- Explain the process of initiating incident operations. - Explain the process of transferring Command. - Describe the duties of a unit or team leader during fireground operations. - Explain the use of postincident reports.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Skills Based Tests on Equipment Use/Handling: - Establish Incident Command and coordinate interior attack of a structure fire. - Create a postincident report.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science
Weeks 31-33 Action Options and Response Objectives Structural Fire Skill Review	- What are predetermined procedures and notification procedures? - What is the role of first responders in initiating protective actions? - What is the process of size-up and risk assessment? - What are the different hazardous materials incident levels?	- Explain predetermined procedures and notification procedures. - Explain the role of first responders in initiating protective actions. - Describe the process of size-up and risk assessment. - Differentiate among hazardous materials incident levels. - Explain the three modes of operation at hazardous materials incidents. - Explain the process of planning the initial response at hazardous materials incidents.	Written - Quiz - Project - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Burn Tower Activity - Skills Based Tests on Equipment Use/Handling: - Make appropriate notifications of a hazardous materials incident.	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	- What are the three modes of operation at hazardous materials incidents? - What is the process of planning the initial response at hazardous materials incidents? - What are ways of implementing response objectives and action options? - What are different types of terrorist attacks and their associated hazards? - What are the hazards at illicit laboratories? - What are the characteristics of illegal hazardous materials dumps? - What is the hazardous materials response during and after natural disasters? - What are processes for evaluating progress at a hazardous materials incident?	- Explain ways of implementing response objectives and action options. - Differentiate among types of terrorist attacks and their associated hazards. - Identify hazards at illicit laboratories. - Recognize illegal hazardous materials dumps. - Describe hazardous materials response during and after natural disasters. - Identify processes for evaluating progress at a hazardous materials incident.	- Implement protective actions at a hazardous materials incident. - Provide scene control at a hazardous materials incident. - Identify actions available at a hazardous materials incident. - Evaluate progress made at a hazardous materials incident.		
Week 34-35 First Aid Provider: CPR, First Aid and AED Work-Based Learning: Career Coaching, Job Shadowing	- What is the role of the fire service in providing emergency medical care? - What are the requirements for patient confidentiality? - What are some communicable diseases that first responders commonly encounter? - What are ways to prevent the spread of communicable diseases during emergency medical care? - What is the process of patient assessment? - What is Cardiopulmonary Resuscitation (CPR)? - What are the methods of controlling bleeding? - What is shock management?	- Describe the role of the fire service in providing emergency medical care. - Explain patient confidentiality requirements. - Identify communicable diseases that first responders commonly encounter. - Explain ways to prevent the spread of communicable diseases during emergency medical care. - Explain the process of patient assessment. - Describe Cardiopulmonary Resuscitation (CPR). - Describe methods of controlling bleeding. - Explain shock management. - Obtain American Heart Association CPR, First Aid and AED - Participate in Career Coaching process.	Written - Quiz - Project - Career Coaching Self-Assessment - Job Shadow Reflection - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist - Cooperative Activity with EMT - American Heart Association CPR, First Aid and AED Training and Certification - Skills Based Tests on Equipment Use/Handling	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,10	Science

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	What can be learned from fire rescue professionals?				
Weeks 36-37 OSHA 10 Hour Training General Civil Service Test Preparation	- What is required in the OSHA 10 Hour Training? - What are the requirements and ways to prepare for a Civil Service Examination?	- Complete OSHA 10 Hour Training. - Explain the requirements and ways to prepare for a Civil Service Examination.	Written - OSHA Training Completion - Civil Service Practice Test - Self-Assessment - Professional Portfolio Performance - Class Presentation - Teacher Observation Checklist	Career Ready Practices CRP 1,2,4,8,9,12	ELA 11-12R 1,2,4,7,8,9 11-12W 1,2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 1,2,3,4,5,6	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 1,2,5,6,7
				Pathway Standards LW-EFM 1,2,3,5,6,9,10,11	Science
Weeks 38-40 Final Review and Assessment	- What knowledge and skills will be assessed? - What is the importance of being physically and mentally fit?*	- Review knowledge and skills learned throughout the year. - Prepare for Final Assessments.	Written - Self-Assessment - Written Final Exam - Professional Portfolio Performance - Teacher Observation Checklist - Skill Based Final Exam - Health and Physical Fitness Assessment	Career Ready Practice CRP 1,2,3,4,6,8,9,11,12	ELA 11-12R 1,2,4,7,8,9 11-12W 2,5,6,7 11-12SL 1,2,3,4,5,6 11-12L 1,2,3,4,5,6
				Cluster Standards LW 2,3	Literacy 11-12RST 1,2,4,7,8,9 11-12WHST 2,5,6,7
				Pathway Standards LW-EFM 1,4,5,7,10,12	Science