



FIRE-597: FIRE SERVICE SKILLS TRAINING AND MAINTENANCE

Effective Term

Fall 2026

BOT Approval Date

12/11/2025

Discipline

FIRE - Fire Technology

Course Number

597

Course Title

Fire Service Skills Training and Maintenance

Short Title

Firefighter Skills and Maint

Credit Status (CB 04)

D - Credit - Degree applicable

Units**Lab Units**

0.50

to

3.00

Total Units

0.50 - 3.00

Variable Hours**Lab Contact Hours Variable**

24 - 162

Out of Class Hours Lab Variable

0 - 0

Total Student Learning Hours Variable

24 - 162

Is this an existing Extensive Lab?

No

Do you want to propose this for Extensive Lab?

No

Distance Education

No

Catalog Description

This course is designed to support both professional and volunteer firefighters currently in the field. It focuses on maintaining career awareness, developing positive work habits and attitudes, and strengthening skills aligned with the objectives of the California State Fire Marshal.



Requisites

Other Enrollment Criteria

Other Enrollment Criteria

The student must have completed a California State Fire Marshal Basic Fire Academy or possess a California State Fire Marshal Firefighter 1 certification and meet the physical requirements outlined in NFPA 1582.

Codes

TOP Code (CB 03)

2133.00* - *Fire Technology

CIP Code

43.0203 - Fire Science/Fire-fighting.

Repeatability Code

No

Grading Option

P/NP only

Minimum Qualifications

Minimum Qualifications

And/Or

Fire Technology

End

Learning Objectives

Learning Objectives

Learning Objective

1. Evaluate fire behavior, building construction, and risk factors to develop effective firefighting strategies in diverse emergency scenarios.
2. Design fire prevention and suppression plans that integrate NFPA standards, safety protocols, and community risk reduction strategies.
3. Implement advanced search, rescue, and ventilation techniques while ensuring firefighter safety and efficiency during operations.
4. Assess the functionality and maintenance requirements of firefighting tools, equipment, and personal protective gear to ensure operational readiness.
5. Develop incident command strategies to coordinate fireground operations, resource deployment, and emergency response procedures.
6. Critique real-world firefighting incidents to identify successes, challenges, and areas for improvement in fire service operations.
7. Synthesize knowledge of hazardous materials, fire dynamics, and suppression techniques to manage complex fire and rescue situations.
8. Integrate diversity, equity, and inclusion (DEI) principles into fire service operations by developing culturally competent communication strategies, ensuring equitable fire prevention outreach, and addressing the unique safety needs of diverse communities.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome

1. Students will demonstrate fire suppression techniques, including hose operation, fire attack strategies, and managing different fire scenarios.
2. Students will perform victim search and removal techniques in various environments, ensuring safety and effective rescue operations.
3. Students will apply the Incident Command System (ICS), effectively manage fireground operations, and make tactical decisions during emergencies.

4. Students will properly use and maintain personal protective equipment (PPE), and understand firefighter health, wellness, and stress management.
5. Students will execute vehicle extrication, confined space, and high-angle rescue operations using specialized tools and techniques.

Content

Course Lab Content

1. Building Construction (.5 Lab Hours)
 - a. Fire features of buildings
 - b. Changes in construction materials and techniques
2. Fire Behavior (.5 Lab Hours)
 - a. Read smoke to better assess fire conditions. Ventilation theory to maximize the removal of smoke, heat, and gases in any type of structure
 - b. Fire extension to avoid being trapped by hidden fire
 - c. Signs of flashover and backdraft to avoid being trapped in a flashover or making entry before backdraft conditions are relieved
3. Hazardous Materials (1.0 Lab Hour)
 - a. Awareness, Identification
 - b. Transportation
 - c. Storage, use and handling
 - d. Fire, Spill, Release, Exposure
 - e. Responder Safety
4. Personal Safety (1.0 Lab Hour)
 - a. Self-contained breathing apparatus-Air management to avoid running out of air before exiting the building
 - i. Components of a positive pressure self-contained breathing apparatus
 - ii. Operation
 - iii. Donning
 - iv. Maze operation
 - v. Smoke evolution
 - vi. Emergency operations
 - vii. Care and maintenance
 - b. PPE: Donning protective clothing to make sure that as much exposed skin as possible is covered
 - i. Operation
 - ii. Donning/doffing
 - iii. Emergency operations
 - iv. Care and maintenance
 - c. Procedures to follow when there is a need for assistance before it is too late
 - d. Ropes and knots
5. Scene Safety (.5 Lab Hour)
 - a. Scene safety to avoid contact with downed power lines, being struck by a building collapse, or accountability to avoid freelancing
 - b. Emergency vehicle operations
 - c. Scene lighting-placement so that the whole scene is adequately lit
6. Fireground Operations (1.0 Lab Hour)
 - a. Ladder Operations: Ground ladders (roof, 24 ft., 28 ft., 35 ft.)
 - i. Carrying
 - ii. Raising
 - iii. Climbing (working from, leg lock, and roof ladder placement)
 - b. Ventilation Operations
 - i. Natural
 - ii. Negative pressure (set up and operation)
 - iii. Positive pressure (set up and operation)
 - iv. Tactical considerations (size up)
 - v. NPA vs. PPV
 - c. Fire attack

- i. Interior fire attack (accountability)
 - ii. Primary and secondary lines
 - iii. Back-up teams (rapid intervention)
 - d. Supply line operations
 - i. Forward, reverse, and splits lays (single and dual lines)
 - ii. Large diameter hose operations (manifolds and wyes)
 - iii. Setting up folding tanks
 - iv. Setting up for draft
 - v. Hydrant valve use (Human valve operations)
 - e. Attack line handling
 - i. Advancing uncharged lines up and down stairs
 - ii. Advancing charged lines up and down stairs
 - iii. Advancing uncharged lines up ground ladders
 - iv. Advancing charged lines up ground ladders
 - f. Standpipe operations (single and multiple lines, extending standpipe lines and flying standpipes)
 - g. Leader line operations
 - h. Wildland Urban Interface (WUI)
 - i. Update new information, research, case studies
 - ii. Update tactics, strategies and equipment
 - iii. 18 Situations that Shout Watch Out!
 - iv. 10 Standard Fire Orders
 - v. Emergency Procedures
 - vi. Case Study
 - i. Hoisting tools
- 7. Search and Rescue (0.5 Lab Hours)
 - a. Forcible Entry
 - i. Forcing doors, windows, and roofs using hand tools
 - ii. Forcing doors, windows, and roofs using power tools
 - iii. Hand and power tool care and maintenance
 - b. Interior search
 - c. Victim removal (drags, from building, down ladder)
- 8. Vehicle Emergencies (0.5 Lab Hours)
 - a. Updates
 - b. Fire
 - c. Rescue
 - d. Equipment and Technology
 - e. Hazards
- 9. Emergency Medical Operations (2.00 Lab Hour)
 - a. Policy and Procedures updates
 - b. Equipment use, storage and maintenance
 - c. Patient assessment
 - d. Transportation of the sick and injured
 - e. Infection control
 - f. Community health update
- 10. Community Risk Reduction (1.0 Lab Hours)
 - a. Emergency Planning
 - i. Natural and technical hazards
 - ii. Disaster Plan
 - iii. ICS Applications
 - iv. Personal Preparedness
 - b. Fire Prevention
 - i. Target Hazards
 - ii. Pre Incident

1. Survey
2. Planning
- iii. Public Education
11. The Importance of DEI in the Fire Service (1.0 Lab Hours)
 - a. Operational Benefits
 - i. Broader perspectives improve decision-making
 - ii. Inclusive leadership enhances morale and performance
 - b. Community Impact
 - i. Representation improves public trust
 - ii. Supports Firewise and CRR (Community Risk Reduction) outreach
 - c. Legal & Ethical Context
 - i. Title VII, EEOC, and California employment laws
 - ii. Departmental liability and professional standards
12. Additional Laboratory Content
 - a. Skills Performance/Drills - (286 Lab Hours)
 - i. Select the tools and explain or demonstrate the procedure for making entry through a double hung window with multiple panes and minimal damage
 - ii. Select the tools and explain or demonstrate the method for making entry through a metal covered fire door equipped with a mortise lock with minimal damage
 - iii. Identify the major parts of a positive pressure self-contained breathing apparatus
 - iv. Don and put into operation a positive pressure self-contained breathing apparatus within 1 minute while attired in full personal protective clothing (coat, pants, hood, helmet, boots, and gloves)
 - v. Identify the hydrostatic test date on a positive pressure self-contained breathing apparatus cylinder and refill the cylinder to the appropriate pressure using a cascade system
 - vi. Demonstrate the method for checking the condition of lifeline rope and explain what is being checked
 - vii. Tie a bowline, clove hitch, half hitch, figure eight on a bight, becket bend, and safety knot, all within 2 minutes
 - viii. Hoist a pike pole, halligan bar, smoke ejector, and roof ladder to a height of at least 20 feet using the proper knots and safety practices
 - ix. Working alone, cover an arrangement of furniture using a salvage cover which has been folded in a one person fold
 - x. With the assistance of another firefighter, fold a salvage cover for one-person usage
 - xi. Explain the application and operation of a double male, double female, gated wye, siamese, fog nozzle, and solid stream nozzle
 - xii. Using a modified flat load, pull and advance a pre-connected 150-foot, 1-1/2-inch, 1-3/4-inch, or 2-inch attack line.
 - xiii. Once pulled, demonstrate the position on the nozzle and application of the water for interior firefighting using the direct method of attack
 - xiv. Lay out and charge a 3-inch, 4-inch, or 5-inch supply line using a hydrant valve
 - xv. Advance 150 feet of pre-connected 2-1/2-inch hose (uncharged) up an extension ladder. Exit the ladder and secure the hose to the ladder, connect a section of 2-1/2-inch or 3-inch hose with 2-1/2-inch couplings to a section of 1-1/2-inch, 1-3/4-inch, or 2-inch hose with 1-1/2-inch couplings
 - xvi. Working with another firefighter, lift, carry, and raise a 24-foot extension ladder. Once raised, each person should climb, take a leg lock, and foot the ladder alternatively
 - xvii. Working with two other firefighters, lift, carry, and raise a 35-foot extension ladder
 - xviii. Working alone, demonstrate the method for carrying a roof ladder up an extension ladder and placing it on a roof
 - xix. Working alone, bring a simulated unconscious victim down an extension ladder from a height of at least 15 feet
 - xx. Working with another firefighter, conduct a search of a small room such as a bedroom filled with smoke, and locate and remove any victims or simulated victims found
 - xxi. Demonstrate the placement of a positive pressure blower for removal of smoke from an interior room.
 - xxii. Explain the operational procedure for venting a house to relieve a backdraft condition
 - xxiii. Demonstrate the method of carrying and using the axe, pike pole, pressurized water fire extinguisher, and halligan bar
 - xxiv. Working with another firefighter, demonstrate emergency medical patient assessment intervention, treatment and transportation technique
 - b. DEI Lab Skills
 - i. Active Listening & Inclusive Communication
 1. Identify a situation (real or simulated) where unconscious/implicit bias might affect crew assignment, mentorship, promotion, or community outreach

2. Role-play an intervention: a crewmember notices a biased remark; practice stepping in respectfully and redirecting the conversation
3. small-group simulation of a station or community outreach event where a diverse audience is present (e.g., under-represented community, language barrier, cultural difference)

Methods of Instruction

Method

Activity

Integration

Working with another firefighter, lift, carry, and raise a 24-foot extension ladder. Once raised, each person should climb, take a leg lock, and foot the ladder alternatively

Method

Discussion

Integration

Students will have a discussion on the method for making entry through a metal covered fire door equipped with a mortise lock with minimal damage

Method

Lecture

Integration

Lecture will cover the major parts of a positive pressure self-contained breathing apparatus. The operational procedure for venting a house to relieve a backdraft condition.

Method

Observation and Demonstration

Integration

Slide decks and other forms of media may be used to demonstrate and illustrate proper techniques for fire suppression, victim rescue, and emergency medical aid for injured persons.

Method

In-class Exercises

Integration

Simulate a one-on-one mentoring conversation: a new member from an under-represented background discusses barriers; mentor practices identifying structural vs individual obstacles and proposes support actions

Methods of Evaluation

Method

Class Participation

Integration

Students will actively participate in fire service-related discussions and activities, including incident command simulations, size-up exercises, and group problem-solving scenarios. Evaluation will be based on engagement, professionalism, communication, and the student's ability to apply fireground principles and operational procedures during class activities.



Method

Exams/Tests

Integration

Quizzes and examinations will be administered to assess understanding of terminology, knowledge of subject matter, and the ability to perform essential fire service skills such as hose deployment, nozzle operation, and water application techniques.

Method

Simulation

Integration

Students will engage in DEI-based simulations replicating realistic fire service situations, including multi-agency operations, public contact, and workforce diversity challenges. Performance will be evaluated on responses, situational awareness, and decision-making that demonstrate respect, inclusivity, and professionalism under pressure.

Assignments**Assignment Type**

Writing

In-class and/or outside of class

In-class

Outside of class

Formative or Summative

Formative

Assignment

Writing Assignment: Analyzing the Impact of Fire Prevention on Reducing Life and Property Loss

Objective:

To research and analyze the effectiveness of fire prevention programs and their contribution to reducing life and property loss in communities. This assignment will help you develop your research, analytical, and writing skills while connecting theoretical knowledge with practical applications in fire service.

Assignment Instructions:

Introduction (1-2 Paragraphs):

Begin your paper by introducing the concept of fire prevention and why it is crucial for community safety.

Briefly define what fire prevention programs are and their general goals.

Research a Fire Prevention Program (2-3 Paragraphs):

Select a fire prevention program or initiative that has been implemented in a specific region or country. This can be a national, regional, or local program.

Provide background information on the program, including:

What the program entails (e.g., public education campaigns, building codes, installation of fire alarms, fire sprinkler systems).

The targeted outcomes (e.g., reducing fires, preventing injuries or fatalities, lowering property damage).

Use credible sources such as government websites, fire department reports, or academic articles to gather information.

Data and Analysis (2-3 Paragraphs):



Analyze the data related to the impact of the fire prevention program. This could include statistics or case studies showing a reduction in fire-related injuries, fatalities, or property loss after the implementation of the program.

Address the following questions:

How effective was the program in reducing fire-related incidents?

Did it lead to a decrease in fatalities or property loss?

Were there any challenges in executing or sustaining the program?

Include relevant data to support your analysis. This could be pre- and post-program statistics, survey results, or expert opinions.

Conclusion and Recommendations (1-2 Paragraphs):

Summarize your findings regarding the effectiveness of the fire prevention program.
Reflect on how similar programs could be applied or improved in your community or within the fire service.

Offer recommendations on how fire prevention efforts can be strengthened or expanded to further reduce fire-related harm and promote safety.

Formatting and Submission Guidelines:
The paper should be 3-5 pages in length (excluding title page and references).
Use APA format for citations and references.

Provide a title page with your name, course title, instructor's name, and the date of submission.

Submit your assignment electronically by [Insert Due Date] to [Instructor's Email or Submission Platform].

Evaluation Criteria:
Research: Depth of research and understanding of the selected fire prevention program.
Analysis: Ability to critically analyze and evaluate the effectiveness of the program in reducing fire-related losses.

Writing Quality: Clear and concise writing, logical flow of ideas, and proper organization of the paper.

Critical Thinking: Demonstrating thoughtful reflection and providing practical recommendations for improving fire prevention strategies.

This assignment is designed to help you apply your knowledge of fire prevention to real-world scenarios, developing both your research skills and your ability to analyze fire prevention effectiveness in reducing risks to life and property.

Assignment Type

Other

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

Objective:

To provide practical, scenario-based training that reinforces fire suppression skills, including hose operation, fire attack strategies, and teamwork, while focusing on maintaining firefighter safety.



Method of Instruction:

Lecture and Demonstration (15 minutes):

The instructor will begin with a brief lecture on the key concepts of fire suppression, including the fire behavior, types of fires, and the importance of using the correct techniques based on the fire's stage and type. A demonstration of proper hose handling and nozzle operation will be conducted.

Scenario-Based Hands-On Drill (60 minutes):

Trainees will be split into small teams and given different fire scenarios (e.g., residential, commercial, car fire, etc.). Each team will be tasked with properly deploying hoses, positioning nozzles, and executing firefighting strategies such as direct and indirect attack. Scenario Examples:

Residential Fire: Firefighters must enter a simulated building and conduct an attack on a growing fire while ensuring the safety of civilians.

Vehicle Fire: Teams must extricate a victim from a vehicle while managing a fire that could spread to nearby structures.

Role-Playing Command and Support Roles (15 minutes):

Each trainee will take turns assuming different roles, such as Incident Commander, Safety Officer, and firefighter roles, to simulate decision-making processes in real-time.

This activity reinforces leadership, communication, and teamwork under pressure.

Debriefing and Reflection (15 minutes):

After the drill, the instructor will lead a debriefing session to evaluate performance, address any safety issues, and discuss what went well and what could be improved. Feedback from the instructor and peers will be provided to improve overall performance in future drills.

Materials Needed:

Fire hoses and nozzles

Fire props for scenario simulation (e.g., smoke machines, controlled fire pits, or simulated fire props)

Personal Protective Equipment (PPE) for each participant

Incident Command boards or radios for communication practice

Evaluation:

Trainee performance will be evaluated on their ability to correctly apply fire suppression techniques, communicate effectively within the team, and follow safety protocols.

Emphasis will be placed on teamwork, leadership under pressure, and the safe operation of firefighting equipment.

Assignment Type

Reading

In-class and/or outside of class

In-class

Formative or Summative

Summative

Assignment

The purpose of this assignment is to assess your understanding of the role fire prevention plays in reducing life and property loss from fires. Through reading and reflection, you will gain insights into the various fire prevention strategies and their effectiveness in real-world scenarios.

Instructions:

Read the Assigned Materials: You are required to read the following materials (provided by your instructor):

Article: "The Impact of Fire Prevention Programs on Community Safety"

Case Study: "Fire Prevention Success Stories: Reductions in Fire Deaths and Property Loss"

Fire Prevention Manual/Chapter from your textbook (if applicable)

Reading Focus Areas: While reading the materials, focus on the following key points:



Different fire prevention strategies (e.g., public education, code enforcement, smoke detector installation, fire-resistant building materials).

Statistical data related to the reduction in fire-related injuries, fatalities, and property damage due to fire prevention efforts.

Case studies highlighting successful fire prevention programs.

Challenges faced by fire services and communities in implementing fire prevention programs.

Lessons learned and best practices from various fire prevention initiatives.

Reflection Questions: After reading the materials, answer the following reflection questions in 1-2 paragraphs each:

a. What are the most effective fire prevention strategies, and why?

Consider factors such as cost, ease of implementation, and impact on reducing fire-related risks.

b. How do fire prevention programs contribute to community safety?

Reflect on the importance of these programs in protecting lives, homes, and businesses.

c. Identify a specific case study or example from the readings that shows significant improvement in reducing fire incidents. What were the key elements that led to success?

d. What challenges might fire departments face when trying to implement fire prevention programs, and how can these challenges be overcome?

Summary: Write a brief summary (1-2 paragraphs) of the key takeaways from the readings. Discuss the importance of fire prevention in the context of your role as a firefighter or future fire service professional. How can you contribute to the fire prevention efforts in your community?

Evaluation Criteria:

Comprehension: Demonstrating a strong understanding of the key concepts and strategies discussed in the readings.

Critical Thinking: Ability to analyze and reflect on how fire prevention can reduce loss of life and property.

Clarity and Organization: Clear and concise writing, logical structure, and thoughtful responses to the reflection questions.

Engagement with the Material: Depth of insight in the summary and reflection questions, showing engagement with the readings.

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

Objective:

To research and analyze the effectiveness of firefighting programs, their contribution to reducing life and property loss in communities, and how incorporating Diversity, Equity, and Inclusion (DEI) principles can enhance these programs. This assignment will help you develop your research, analytical, and writing skills while connecting theoretical knowledge with practical applications in firefighting.

Assignment Instructions:

Introduction (1-2 Paragraphs):

Begin your paper by introducing the concept of firefighting and why it is crucial for community safety.

Briefly define what firefighting programs and services are, and their general goals.

Highlight the importance of Diversity, Equity, and Inclusion (DEI) in these programs. Explain how DEI can play a role in ensuring that all populations—particularly those that are underserved or at-risk—are equally protected by firefighting services.

Research a Firefighting Program (2-3 Paragraphs):

Select a firefighting program or initiative that has been implemented in a specific region or country. This can be a national, regional, or local program.

Provide background information on the program, including:



What the program entails (e.g., emergency response protocols, community outreach, fire suppression tactics, fire department training).

The targeted outcomes (e.g., reducing fire-related fatalities and injuries, minimizing property damage, improving firefighter safety). Explore how DEI is integrated into the program. Does the program ensure diverse representation within firefighting teams? Are there efforts to reach marginalized or underserved communities with fire services? Does the program address the needs of vulnerable groups during firefighting operations?

Use credible sources such as government websites, fire department reports, or academic articles to gather information.

Data and Analysis (2-3 Paragraphs):

Analyze the data related to the impact of the firefighting program. This could include statistics or case studies showing a reduction in fire-related injuries, fatalities, or property loss after the implementation of the program.

Address the following questions:

How effective was the program in reducing fire-related incidents? Did it show a measurable decrease in fatalities or property loss?

Did the program take DEI factors into account, such as ensuring equitable access to fire services for all community members, including people from marginalized groups?

Were there any challenges in executing or sustaining the program, particularly in ensuring inclusivity and fair representation in the firefighting workforce?

Include relevant data to support your analysis. This could be pre- and post-program statistics, survey results, or expert opinions.

Conclusion and Recommendations (1-2 Paragraphs):

Summarize your findings regarding the effectiveness of the firefighting program, including any DEI considerations.

Reflect on how similar programs could be applied or improved in your community or within the firefighting service to ensure that DEI principles are fully integrated, so that fire services benefit all individuals, regardless of their background.

Offer recommendations on how firefighting efforts can be strengthened or expanded to further reduce fire-related harm and promote safety. Consider how DEI strategies can be leveraged to ensure equitable access to firefighting resources and improve firefighter diversity, safety, and efficiency.

Formatting and Submission Guidelines:

The paper should be 3-5 pages in length (excluding title page and references).

Use APA format for citations and references.

Provide a title page with your name, course title, instructor's name, and the date of submission.

Submit your assignment electronically by [Insert Due Date] to [Instructor's Email or Submission Platform].

Evaluation Criteria:

Research: Depth of research and understanding of the selected firefighting program, including DEI principles.

Analysis: Ability to critically analyze and evaluate the effectiveness of the program in reducing fire-related losses and its consideration of DEI factors.

Writing Quality: Clear and concise writing, logical flow of ideas, and proper organization of the paper.

Critical Thinking: Demonstrating thoughtful reflection and providing practical recommendations for improving firefighting strategies, with an emphasis on equity and inclusivity.

Course Materials

Textbooks

Fundamentals of Firefighter Skills. (2025). Jones & Bartlett Learning.

International Fire Service Training Association (IFSTA). Essentials of Fire Fighting, 8th Edition: Firefighter I. Fire Protection Publications, 2024.

Fortney, J., & Clausing, C. (2024). Essentials of fire fighting: Firefighter 1. Oklahoma State University, Fire Protection Publications.

Class Size Information

Class Size

30

Class Size Category

F - Individualized, skills#based instruction/field practice 30

Diversity and Inclusion

Course Design and Materials: Course will incorporate diverse perspectives, authors, and examples that reflect a variety of cultures, identities, and lived experiences. Instructional materials will be reviewed regularly to ensure representation, inclusivity, and alignment with equity-minded practices across disciplines.

Inclusive Learning Environment: Instructors will establish classroom norms and policies that promote respect, civil discourse, and belonging in both online and face-to-face classes. Clear expectations for communication and engagement will support a learning space where all students feel valued and heard.

Accessible Instruction: Course content will be delivered using accessible design. Materials will follow accessibility guidelines within the CMS, including captioned media, readable document formats, and multiple means of engagement to support diverse learning.

Equitable Teaching Practices: Instructors will use transparent and grading criteria, varied assessment methods, and timely feedback to promote fairness and student success. Opportunities for revision, reflection, and multiple demonstrations of learning may be incorporated when appropriate to the discipline.

Culturally Responsive Pedagogies: Instructional strategies will encourage critical thinking about diverse perspectives and systems of power relevant to the course content. Faculty will foster opportunities for students to connect course material to real-world contexts.

Ongoing Reflection and Improvement: Faculty will engage in continuous professional development related to IDEAA principles and reflect on course practices using metacognition to identify opportunities for increased equity, inclusion, and accessibility.

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

The class includes students from diverse backgrounds, including various genders, races, and experiences, with a strong emphasis on encouraging active participation from everyone. To deepen their understanding of DEI (Diversity, Equity, and Inclusion) practices in the fire service, students will interview full-time firefighters to learn about current trends and DEI initiatives within local fire departments. These interviews will provide students with real-world perspectives on how diversity and inclusivity are being integrated into firefighting practices, equipment maintenance, and team coordination.

Using the knowledge gained from these interviews, students will apply their findings to create a report project that analyzes DEI practices and offers recommendations for improvement within the fire service. This project will highlight how diverse and inclusive teams contribute to more effective firefighting operations and safety protocols. For example, students may learn how fire departments with diverse teams are better equipped to understand and serve the needs of a wide variety of communities, from culturally diverse populations to individuals with disabilities. They will also explore how such diversity leads to more effective communication, problem-solving, and team dynamics, ultimately enhancing both fire service delivery and safety standards.

Through this process, students will gain a better understanding of how fire service skills and maintenance practices can be more effectively delivered in a way that acknowledges the value of diversity, ensuring that the entire team can respond to a broad range of emergency situations with efficiency and empathy.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

Students will have equal access to all learning resources and the opportunity for one-on-one interaction with the professor. Various forms of media, including video, will be used to support DEI (Diversity, Equity, and Inclusion) and enhance the learning experience, particularly in the context of Fire Service Skills Training and Maintenance.

For group activities, students will be placed in diverse teams based on gender, age, race, and sex. These groups will collaborate, with each student expected to contribute to the discussion. This collaborative environment will allow students to experience firsthand how DEI can positively impact any group or organization, especially within fire service teams, by fostering a variety of perspectives and enhancing problem-solving and decision-making.

As part of an interview project designed to deepen their understanding of DEI practices in the fire service, students will either visit a local fire department or contact one by phone to inquire about their DEI considerations in hiring, operations, and equipment maintenance. After gathering information, students will reconvene to discuss their findings and share insights. This exercise will provide practical exposure to how DEI policies and practices are integrated into firefighting operations, equipment management, and team coordination, further reinforcing the importance of inclusivity and diversity in the field.

Interactions

Explain how the course will incorporate student-to-student interaction.

Within a classroom setting, students will engage in discussions related to Fire Service Skills Training and Maintenance, including topics such as advancements in firefighting techniques, new developments in fire service equipment, and best practices for maintaining fire apparatus and gear. Students will also provide feedback to their peers on in-class projects and assignments, such as hands-on skill drills, equipment maintenance assessments, and safety protocol evaluations.

This interactive approach will promote collaborative learning and ensure a deeper understanding of both the theoretical and practical aspects of fire service skills and maintenance. Students will be able to apply their knowledge through real-world scenarios while honing their skills in fire suppression, equipment care, and maintaining firefighter safety standards.

Explain how the course will incorporate instructor-to-student interaction.

During class discussions, the instructor will ask open-ended questions to promote critical thinking and deepen student understanding of Fire Service Skills Training and Maintenance. These questions will encourage students to reflect on the material, share insights, and actively engage with key concepts related to firefighting techniques, equipment maintenance, and safety protocols.

For example, the instructor may ask:

"How do you think diverse perspectives could influence firefighting tactics and team coordination?"

"What challenges might fire departments face in maintaining equipment and apparatus, and how can they address these challenges?"

"What factors should be considered when evaluating the effectiveness of firefighting tools and protective gear?"

"How does proper maintenance of fire service equipment impact the safety and success of firefighting operations?"

This approach will help assess student comprehension while fostering meaningful classroom interactions in the study of fire service skills and maintenance practices, ensuring that students are equipped to apply their knowledge in real-world fire service scenarios.

Explain how the course will incorporate student-to-content interaction.

The student will analyze the concepts learned in class, conduct real-life interviews, and write a term paper that demonstrates mastery of the topic related to Fire Service Skills Training and Maintenance, including the proper maintenance of fire service equipment and the practical application of firefighting techniques.

Embedded video interactions within the course will require each student to engage and respond to questions that directly relate to firefighting tactics, equipment maintenance, and fire service operations. These videos will cover scenarios such as fire suppression techniques, maintenance protocols for fire apparatus, and the importance of maintaining personal protective equipment (PPE).

The instructor will provide real-life videos and images from actual fire service operations, including fireground operations, apparatus inspections, and equipment failure investigations. These materials will serve as a foundation for discussion with students, both online through the discussion board in the CMS and in the classroom setting.

This approach will enhance student comprehension by connecting theoretical knowledge to real-world applications in fire service skills and maintenance practices, ensuring students are well-prepared for practical situations in the field.

Explain how the course will incorporate student-to-self interaction (metacognitive).

Students will have the opportunity to self-analyze their study habits, learning abilities, and career goals throughout the course by completing various assignments related to Fire Service Skills Training and Maintenance, including topics such as equipment maintenance, firefighting tactics, and the application of fire service protocols.

The course will also focus on teaching students effective study strategies, building confidence through active participation, providing constructive feedback to peers, and engaging in self-reflection. One key component will be an assignment where students will evaluate their own performance and grade one of their own assignments. Students will justify their grading decisions based on their effort and work completed, considering areas such as the proper maintenance of firefighting equipment, execution of fire suppression techniques, and adherence to safety standards.

Students will be evaluated on their participation in class discussions, both in group settings and one-on-one interactions, where active engagement and critical thinking are encouraged. Evaluation will also include their completion of assignments, such as the



self-grading assignment, where students reflect on their efforts, assess their own progress, and provide rationale for their grades based on their understanding of firefighting operations, equipment care, and fire service safety protocols.

Additionally, peer feedback will be part of the evaluation process, encouraging students to critically engage with each other's work and provide thoughtful, constructive input on topics such as equipment maintenance procedures, safety measures, and tactical fire suppression strategies. Overall, the evaluation will assess students' ability to reflect on their learning, apply new fire service skills, and demonstrate improvement throughout the course.

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