Course Description

Provides a comprehensive overview of fire protection, career opportunities in fire protection and related fields, fire loss analysis, and an orientation to the philosophy and history of fire protection and fire services.

Course Textbook


Course Learning Objectives

Upon completion of this course, students should be able to:

1. Summarize fire technology, its educational programs, and selection processes for becoming a firefighter.
2. Recognize fire protection career opportunities in the private and public sectors.
3. Describe the chemistry, physics, classification, and phases of fire.
4. Summarize the many public and private support organizations associated with fire prevention.
5. Evaluate the command structure, management cycle, fire department types, and communication within fire service organizations.
6. Explain the purpose of training in the fire service and how it contributes to effective fire protection tactics.
7. Evaluate the codes and ordinances of fire prevention and how they relate to standards for the fire service.
8. Explain water supply systems, fire protection systems, and extinguishing systems and agents.
9. Summarize the management responsibilities and incident recovery planning described in the incident command system.

Credits

Upon completion of this course, the students will earn three (3) hours of college credit.

Course Structure

1. **Unit Learning Objectives:** Each unit contains Unit Learning Objectives that specify the measurable skills and knowledge students should gain upon completion of the unit.
2. **Written Lectures:** Each unit contains a Written Lecture, which discusses lesson material.
3. **Reading Assignments:** Each unit contains Reading Assignments from one or more chapters from the textbook. Units III and VII have additional required readings provided as PDFs. Supplemental Readings are provided in Units I, III, IV, V, and VI to aid students in their course of study. Suggested Further Readings are listed in Units II, VI, and VIII. The readings themselves are not provided in the course, but students are encouraged to read the resources listed if the opportunity arises as they have valuable information that expands upon the lesson material.
4. **Key Terms:** Key Terms are intended to guide students in their course of study. Students should pay particular attention to Key Terms as they represent important concepts within the unit material and reading.
5. **Unit Quizzes:** This course contains three Unit Quizzes, one to be completed at the ends of Units I, II, and III. It is suggested that the quizzes be completed before students complete the Unit Assessments. Quizzes are used to give students quick feedback on their understanding of the unit material and are composed of multiple-choice questions.
6. **Unit Assessments:** This course contains five Unit Assessments, one to be completed at the ends of Units I, II, III, VI, and VIII. Assessments are composed of multiple-choice, short essay, and/or matching questions.
7. **Unit Assignments**: Students are required to submit for grading Unit Assignments in Units III, IV, V, and VII. (Units IV and V both have two assignments each.) Specific information and instructions regarding these assignments are provided below.

8. **Ask the Professor**: This communication forum provides you with an opportunity to ask your professor general or course content related questions.

9. **Student Break Room**: This communication forum allows for casual conversation with your classmates.

**Unit Assignments**

**Unit III Case Study**

**Fire Protection Analysis**

For this Case Study you are required to read the “NIST NCSTAR2: Volume I-Report of the Technical Investigation of The Station Nightclub Fire” found in online at [http://fire.nist.gov/bfrlpubs/fire05/PDF/f05032.pdf](http://fire.nist.gov/bfrlpubs/fire05/PDF/f05032.pdf). After reviewing the report you will write a case study analysis in response to a series of questions that are listed below. Your final report will be in APA format and will include the following: a cover page, a minimum of four pages of analysis in response to given questions, and a reference page. All responses should be written in a professional analytical manner as though you are a fire protection specialist providing counsel and advice in response to a request by a municipality wishing to avoid such a catastrophic event.

You are encouraged to use your textbook as a reference source in order to write a professional level analysis. All sources must be properly referenced both in-text and on the reference page.

The Case Study should address the following questions in your analysis:

1. What was the occupancy history of the building?
2. What were the pre-fire conditions of the building housing The Station Nightclub?
3. What were, if any, previous incidents at this building site?
4. What are the response capabilities of the West Warwick Fire Department?
5. What type of construction was the building?
6. What was the primary cause of the inferno?
7. What material was largely responsible for such volume of fire?
8. What fire protection systems where in place at the time of the fire?
9. What recommendations would you make relative to fire detection and protection systems?
10. What might another city or town do to avoid such a catastrophe as this?

Your assignment must:

- Be a minimum of four pages (cover page, two pages of text, reference page).
- Be typed, double-spaced, using Times New Roman font (size 12), with one-inch margins on all sides; citations and references must follow APA format.
- Include a cover page containing the title of the assignment, the student's name, the professor's name, the course title, and the date.

Include a reference page. You are encouraged to use your textbook as a reference source in order to write a professional level analysis. All sources must be properly referenced both in-text and on the Reference Page. Make sure to use APA format.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

**Unit IV Project**

**Designing, Developing, and Implementing an Acceptable Use Policy (AUP)**

Computers have become an integral part of the fabric of daily life in the fire service. Once seen merely as a luxury, the computer is now a necessity for a multitude of functions: computer aided dispatch, fire incident reporting, creating work schedules, outlining vacation and other time-off requests, apparatus maintenance tracking, and use by personnel for online education and earning of a college degree.
While many communities have an information technology (IT) support division, many more do not. Why? Cost! Typically in those communities that have a formal IT division or department, it is the responsibility of the IT personnel to design, develop, and implement a formal Acceptable Use Policy (AUP). An AUP is an outline of responsible use of the community’s taxpayer owned computer network. The AUP must be made known to all employees of the community, and, once educated as to the contents of the AUP, each employee is required to sign a form indicating that he/she received knowledge of the AUP, received a hard copy of it, and agrees to adhere to the AUP or suffer the penalties of misuse.

This Project Paper requires that you, acting as the IT director of your fire department (or company, if non-fire service) write a formal Acceptable Use Policy that will be distributed to all employees.

The paper will be written in proper APA format and contain not less than four full-pages of written, double-spaced text addressing the specific elements found in the outline below. The paper must have a cover page, four pages of text (body), and a reference page. You may use as many reference sources as needed to support your AUP. Text font and size are to be Times New Roman, 12pt., and margin settings should be one inch for all sides. Proper grammar and spelling are expected as well as this is a professional college-level paper.

The AUP title is your choice. The components to be researched and written into the policy are as follows:

1. The purpose of AUP
2. Audience being addressing
3. Privacy expectations
4. Responsibilities of the municipal leadership
5. Responsibilities of the municipal employees regarding use of the computer network system
6. Disciplinary action to taken for violation of AUP

Your AUP paper should be written in the present tense and may be written from the perspective of your own municipality using the name of your municipality or, if private sector, your company name.

Unit IV Research Paper

Public and Private Support Agencies

Chapter 5 tells us that a significant number of both private and public associations and agencies stand at the ready to assist fire service leaders in preparing for disasters, mitigating disasters, and recovering from disasters. Many of these organizations offer individual and company memberships, though membership is not always a requirement for securing information and assistance.

For this paper, you are required to write a full one-page summary of the scope of purpose, responsibility, and benefit of an organization of your choosing from the list of 12 provided below. You will include how the organization interacts with the fire service and how the fire service could utilize the organization’s resources.

The paper will be written in proper APA format. The paper must have a cover page, at least one page of text (body), and a reference page. Text font and size are to be Times New Roman, 12pt., and margin settings should be one inch for all sides. Your paper should be double-spaced. Proper grammar and spelling are expected as well as this is a professional college-level paper.

Choose one organization from this list:

1. American Fire Sprinkler Association (AFSA)
2. American Red Cross
3. Chemical Transportation Emergency Center (CHEMTREC)
4. Insurance Services Office (ISO)
5. National Institute for Occupational Safety and Health (NIOSH)
6. National Incident Management System (NIMS)
7. Federal Emergency Management Agency (FEMA)
8. United States Fire Administration (USFA)
9. National Fire Academy (NFA)
10. Fire and Emergency Services Higher Education (FESHE)
11. Occupational Safety and Health Administration (OSHA)
12. Environmental Protection Agency (EPA)
Unit V Project 1

Writing a Training Standard Operating Procedure/Guideline (SOP/SOG)

For this Project you are required to compose a standard operating procedure/guideline (SOP/SOG) for a training skills development exercise. The SOP/SOG will be used by all department shifts/groups and administered by different training officers assigned to each of the respective shifts/groups. The SOP/SOG shall be written in a step-by-step logistical order to avoid confusion and misunderstanding as to the purpose and benefit of the task or skill training.

The paper is to be written according to APA standards and should include a cover page, body of text, and reference page. The body of the paper should be at least two pages. Text font and size are to be Times New Roman, 12pt., and margin settings should be one inch for all sides. Your paper should be double-spaced. Proper grammar and spelling are expected as well as this is a professional college-level paper.

The skill to be taught for this training SOP/SOG is drafting from a static water supply.

Remember that the SOP/SOG requires detailed narration that eliminates confusion and projects clarity.

Unit V Project 2

Analysis and Use of the Management Cycle

For this Project you are required to analyze the six components of the management cycle as applied to a given goal and objective. The paper should conform to APA requirements and format. This paper should have a cover page, three pages of text, and a reference page.

Text font and size are to be Times New Roman, 12pt., and margin settings should be one inch for all sides. Your paper should be double-spaced. Proper grammar and spelling are expected as well as this is a professional college-level paper.

Topic of analysis: The population of your community has grown considerably during the past decade, and the demand for additional emergency medical services (EMS) has increased accordingly. Presently, the fire department has one paramedic ambulance unit (PAU) staffed 24/7 by full-time paramedics who do not participate in fire suppression operations except as fire-ground EMS and rehab personnel.

The mayor has asked the fire chief to analyze the feasibility of adding a second full-time PAU to the community fire department. Because you have taken a number of college-level fire science courses while earning a degree from an online university, the chief asks you to research and write a paper that either supports or rejects the mayor’s assessment that a second PAU is needed.

Write a paper that addresses each of the six components, providing sufficient analysis and composition that reflects a professional level response. Remember that each of the six components must be addressed in response to the mayor’s goal and objective so that your paper either supports or rejects the request.

Unit VII Case Study

One Meridian Plaza Highrise Fire of 1991

Although this fire took place 21 years ago, it remains one of the most significant non-terrorist associated highrise fires in the last century of U.S. fire history. On that fateful evening of February 23, 1991, an alarm of fire was received by the Philadelphia Fire Department reporting a fire on the “upper floors” at One Meridian Plaza. Fire-due fire companies made their best guess assessment of the situation and began fire suppression operations.

For this Case Study and analysis you will be using the PDF document titled, “Highrise Office Building Fire One Meridian Plaza, USFA-TR-049” located online at http://www.usfa.fema.gov/downloads/pdf/publications/tr-049.pdf.

You must read the document in order to analyze and write your Case Study analysis summation of the incident. Your Case Study and analysis paper will consist of the following minimum number of pages from beginning to end (for a total of 11 pages):

- A cover page containing the title of the assignment, the student’s name, the professor’s name, the course title, and the date.
Seven pages of summary text addressing the following topics:

- Building construction, occupancy, and fire protection systems
- Response, fire attack, fire spread, loss of lives, and extinguishment
- Strengths and weaknesses of incident command
- Lessons gained or lost with passage of time

A reference page in APA formant

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

**APA Guidelines**

CSU requires that students use the APA style for papers and projects. Therefore, the APA rules for formatting, quoting, paraphrasing, citing, and listing of sources are to be followed. A document titled “APA Guide” is available for you to download from the APA Guide link, found in the Learning Resources area of the myCSU Student Portal. It may also be accessed from the Student Resources link on the Course Menu. This document includes examples and sample papers and provides links to The CSU Success Center and the CSU Online Library staff.

**Grading Rubrics**

This course utilizes analytic grading rubrics as tools for your professor in assigning grades for all learning activities. Each rubric serves as a guide that communicates the expectations of the learning activity and describes the criteria for each level of achievement. In addition, a rubric is a reference tool that lists evaluation criteria and can help you organize your efforts to meet the requirements of that learning activity. It is imperative for you to familiarize yourself with these rubrics because these are the primary tools your professor uses for assessing learning activities.

Rubric categories include: (1) Assessment (Written Response) and (2) Assignment. However, it is possible that not all of the listed rubric types will be used in a single course (e.g., some courses may not have Assessments).

The Assessment (Written Response) rubric can be found embedded in a link within the directions for each Unit Assessment. However, these rubrics will only be used when written-response questions appear within the Assessment.

Each Assignment type (e.g., article critique, case study, research paper) will have its own rubric. The Assignment rubrics are built into Blackboard, allowing students to review them prior to beginning the Assignment and again once the Assignment has been scored. This rubric can be accessed via the Assignment link located within the unit where it is to be submitted. Students may also access the rubric through the course menu by selecting “Tools” and then “My Grades.”

Again, it is vitally important for you to become familiar with these rubrics because their application to your Assessments and Assignments is the method by which your instructor assigns all grades.

**Communication Forums**

These are non-graded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged, but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

Once you have completed Unit VIII, you MUST unsubscribe from the forum; otherwise, you will continue to receive e-mail updates from the forum. You will not be able to unsubscribe after your course end date.

Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.

**Ask the Professor**

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-
public nature, please feel free to email your professor. Responses to your post will be addressed or emailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

**Student Break Room**

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to share assessment answers.

**Grading**

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Unit Quizzes (3 @ 7%)</td>
<td>21%</td>
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<tr>
<td>Unit Assessments (4 @ 6%)</td>
<td>24%</td>
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<td>Case Studies (2 @ 8%)</td>
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<td>Unit Projects (3 @ 8%)</td>
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<td>Unit IV Research Paper</td>
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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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**Course Schedule/Checklist (PLEASE PRINT)**

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.
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<table>
<thead>
<tr>
<th>Unit I</th>
<th>Introduction to Fire Science Education and Job Opportunities</th>
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<tbody>
<tr>
<td>Review:</td>
<td>□ Unit Study Guide</td>
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</tbody>
</table>
| Read: | □ Chapter 1: Fire Science Education and the Firefighter Selection Process
□ Chapter 2: Fire Protection Career Opportunities
□ Supplemental Reading: See Study Guide |
| Submit: | □ Quiz
□ Assessment |
| Notes/Goals: | |

<table>
<thead>
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<th>Unit II</th>
<th>Public Fire Protection and Fire Department Resources</th>
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<tr>
<td>Review:</td>
<td>□ Unit Study Guide</td>
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</table>
| Read: | □ Chapter 3: Public Fire Protection
□ Chapter 6: Fire Department Resources
□ Suggested Further Reading: See Study Guide |
| Submit: | □ Quiz
□ Assessment |
| Notes/Goals: | |

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<tr>
<th>Unit III</th>
<th>Chemistry and Physics of Fire and Fire Protection Systems and Equipment</th>
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<tr>
<td>Review:</td>
<td>□ Unit Study Guide</td>
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</table>
| Read: | □ Chapter 4: Chemistry and Physics of Fire
□ Chapter 12: Fire Protection Systems and Equipment
□ Additional Required Reading: See Study Guide
□ Supplemental Reading: See Study Guide |
| Submit: | □ Quiz
□ Case Study |
| Notes/Goals: | |
# BFS 3251, Introduction to Fire Protection

## Course Schedule

### Unit IV: Support Organizations and Functions

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<th>Review:</th>
<th>Unit Study Guide</th>
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<tr>
<td>Read:</td>
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<td></td>
<td>Chapter 5: Public and Private Support Organizations</td>
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<td>Chapter 8: Support Functions</td>
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<td><strong>Supplemental Reading</strong>: See Study Guide</td>
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<td>Project</td>
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<td>Research Paper</td>
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**Notes/Goals:**

### Unit V: Fire Department Administration and Training

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<th>Review:</th>
<th>Unit Study Guide</th>
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<td>Read:</td>
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<td>Chapter 7: Fire Department Administration</td>
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<td>Chapter 9: Training</td>
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<td>Project 2</td>
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**Notes/Goals:**

### Unit VI: Fire Prevention and Codes and Ordinances

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<td>Read:</td>
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<td></td>
<td>Chapter 10: Fire Prevention</td>
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<td>Chapter 11: Codes and Ordinances</td>
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<td><strong>Supplemental Reading</strong>: See Study Guide</td>
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<td><strong>Suggested Further Reading</strong>: See Study Guide</td>
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<td>Submit:</td>
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<td>Assessment</td>
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**Notes/Goals:**
### Unit VII: Emergency Incident Management

**Review:**
- ☐ Unit Study Guide

**Read:**
- ☐ Chapter 13: Emergency Incident Management
- ☐ Additional Required Reading: See Study Guide

**Submit:**
- ☐ Case Study

**Notes/Goals:**

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### Unit VIII: Emergency Operations

**Review:**
- ☐ Unit Study Guide

**Read:**
- ☐ Chapter 14: Emergency Operations
- ☐ Suggested Further Reading: See Study Guide

**Submit:**
- ☐ Assessment

**Notes/Goals:**