Course Description

Focuses on fire prevention through inspection, code enforcement, the use of model building and fire prevention codes, including detailed information on the legal, economic, and political aspects of the fire inspection process.

Course Textbook


Course Learning Outcomes

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

1. Evaluate the interrelationship of codes, standards, and inspections in fire prevention.
2. Examine the building code development and modification process.
3. Explain the use and value of fire resistant materials in the construction process.
4. Analyze fire tests and rating systems that assess the quality of fire resistant materials used in construction.
5. Discuss the inspection procedures for each type of suppression system.
6. Summarize a comprehensive overview of the general fire safety provisions for occupied buildings.
7. Demonstrate the rationale for the general fire safety provisions as methods of fire protection.
8. Investigate characteristics of unsafe structures in accordance to fire codes.
9. Develop strategies to bring an unsafe structure into compliance with proper fire codes.
10. Discuss the installation, maintenance, and inspection procedures for water-based, halon, dry-chemical, and clean-agent fire suppression systems.

Credits

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

Course Structure

1. **Study Guide**: Each unit contains a Study Guide that provides students with the learning outcomes, unit lesson, required reading assignments, and supplemental resources.
2. **Learning Outcomes**: Each unit contains Learning Outcomes that specify the measurable skills and knowledge students should gain upon completion of the unit.
3. **Unit Lesson**: Each unit contains a Unit Lesson, which discusses lesson material.
4. **Reading Assignments**: Each unit contains Reading Assignments from one or more chapters from the textbook and/or outside resources.
5. **Suggested Reading**: Suggested Readings are listed in the Unit I-VI and VIII study guides. Students are encouraged to read the resources listed if the opportunity arises, but they will not be tested on their knowledge of the Suggested Readings.
6. **Unit Assessment**: This course contains one Unit Assessment, to be completed at the end of Unit VII. This assessment is composed of written-response questions.
7. **Unit Assignments**: Students are required to submit for grading Unit Assignments in Units I-VI and VIII. There are two assignments in Unit VI. Specific information and instructions regarding these assignments are provided below. Grading rubrics are included with each assignment. Specific information about accessing these rubrics is 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.

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**CSU Online Library**

The CSU Online Library is available to support your courses and programs. The online library includes databases, journals, e-books, and research guides. These resources are always accessible and can be reached through the library webpage. To access the library, log into the myCSU Student Portal, and click on "CSU Online Library." You can also access the CSU Online Library from the "My Library" button on the course menu for each course in Blackboard.

The CSU Online Library offers several reference services. E-mail (library@columbiasouthern.edu) and telephone (1.877.268.8046) assistance is available Monday – Thursday from 8 am to 5 pm and Friday from 8 am to 3 pm. The library’s chat reference service, *Ask a Librarian*, is available 24/7; look for the chat box on the online library page.

Librarians can help you develop your research plan or assist you in finding relevant, appropriate, and timely information. Reference requests can include customized keyword search strategies, links to articles, database help, and other services.

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**Unit Assignments**

**Unit I Essay**

Locate the fire codes for your current jurisdiction or your hometown. Provide a link to their location on the city/town website. Include the information below in your response.

- What codes are in place?
- How were the codes adopted, and who adopted them?
- Why were these codes adopted and/or modified for your jurisdiction?
- Who enforces the codes, and is it currently happening?
- How do the codes affect standards?
- What impact do the codes have on inspections?
- What is the impact of not enforcing the codes?

Your response should be at least two pages in length. You may use your textbook as source material for your response. You must also use one outside source. All sources used, including the textbook, must be referenced; paraphrased and quoted material must have accompanying citations in APA format.

Information about accessing the grading rubric for this assignment is provided below.

**Unit II PowerPoint Presentation**

Create a 10- to 15-slide PowerPoint presentation on building construction.

Using your own jurisdiction (community), identify buildings for three of the five types of construction. Provide a picture for each type of construction, and address the questions below for each type.

- What type of building construction was used?
- What, if any, fire resistive materials were used?
- What value, if any, do the materials provide to occupants and firefighters?
- As a firefighter, what concerns do you have about this particular building?

In addition to the three buildings above, provide a picture for a fourth building:

- This should be the safest building, in your opinion, with regards to occupant and firefighter safety.
- Explain the use and value of fire resistant materials used in the construction process of the building.
- How would you justify/encourage the use of these materials in future construction?
If you do not have these building construction types or occupancies in your area, an Internet search is acceptable. You may also use the information in your textbook. Your presentation should include at least one reference and citations to support your discussion. You are expected to provide notes in the notes section to define the types and occupancies. Be sure to cite any sources used in a reference slide using proper APA formatting. The title and reference slides do not count towards the slide-count requirement.

These CSU Success Center videos are available to view should you need additional assistance in the development of your PowerPoint presentation:

Click [here](http://www.google.com) to view PowerPoint: Zero to Hero. This webinar will demonstrate how to make a basic PowerPoint presentation as well as how to incorporate backgrounds, text, pictures, screen shots, and other elements that will be useful for making a basic PowerPoint.

For more advanced help, click [here](http://www.google.com) to view Presentable PowerPoints. This webinar will cover guidelines and tips for making a PowerPoint presentation for the academic setting. While there will be some information about how to use PowerPoint, this webinar will mostly focus on the accepted norms for creating a professional presentation. This webinar will also go over how to make a PowerPoint presentation APA compatible.

Information about accessing the grading rubric for this assignment is provided below.

**Unit III Case Study**

Review the National Institute of Standards and Technology (NIST) technical note and video below.


National Institute of Standards and Technology. (2014, December 2). *Simulation of an attic fire in a wood frame residential structure—Chicago* [Video file]. Retrieved from [https://www.youtube.com/watch?v=nY3JO_Kf9Qk#t=14](https://www.youtube.com/watch?v=nY3JO_Kf9Qk#t=14)

Be sure to include the components listed below in your case study:

- Examine the applicable building codes for this structure.
  - How were they developed?
    - Were they developed locally?
    - Were they modified or adopted?
    - If modified, how so?
- Analyze the tests conducted on materials found in the structure.
  - What types of materials were used in the construction of the house?
  - What were the results?
  - What were the lessons learned?

Your case study response should be two to four pages in length and follow APA guidelines. Make sure to use the textbook and at least one additional scholarly reference from the CSU Online Library to support your response.

Information about accessing the grading rubric for this assignment is provided below.

**Unit IV PowerPoint Presentation**

Your municipality is considering adoption of several modifications to the current fire code for all commercial buildings over 4,000 square feet. Specifically of interest to you, the primary modification will require the installation, maintenance, and inspection of the appropriate fire protection system for each type of commercial business. As the fire inspector, you have been asked to come to the next city council meeting to educate the members on the matter.

Prepare a 10- to 15-slide PowerPoint presentation that includes information on the installation, maintenance, and inspection of each of the following types of fire suppression systems:

- automatic sprinkler systems,
- wet-pipe sprinkler systems,
- dry-pipe sprinkler systems,
- preaction sprinkler systems,
- deluge sprinkler systems,
- dry-chemical extinguishing systems,
- wet-chemical extinguishing systems,
- clean-agent extinguishing systems (halogenated agents), and
- carbon dioxide extinguishing systems.

Remember that the city council members are laypeople, so be sure to include pictures and explain any technical information that may be confusing for them. You are encouraged to include information regarding the economic impact of this code adoption.

You may also use the information in your textbook. Your presentation should include at least two references to support your discussion. Be sure to cite any sources used in a reference slide, using proper APA formatting. The title and reference slides do not count toward meeting the slide-count requirement.

Information about accessing the grading rubric for this assignment is provided below.

**Unit V Scholarly Activity**

Fire code violations have increased in your area over the past 2 years. Local business owners are complaining to city officials about the fines and costs to mitigate the code violations. The chief has asked you to conduct a cost–benefit analysis of fire code compliance. This analysis should provide an overview of non-enforcement versus enforcement of the fire code.

Try to research the number of commercial fires that occur within your jurisdiction, and determine if the fires could have been prevented if fire codes were enforced.

Your analysis should be two to three pages in length and follow APA guidelines. Make sure to use the textbook and at least one scholarly reference to support your statements. The title and reference pages are not included in the page-count requirement.

Information about accessing the grading rubric for this assignment is provided below.

**Unit VI Project**

**Inspection Checklist**

The Chamber of Commerce is planning an outreach event for all business owners in the area. The event, Being Good Neighbors, will focus on things that businesses and business owners can do to better serve their employees and the community. As a member of the Fire Prevention and Code Enforcement division, you have been asked by the chamber to present information on common fire code violations found in businesses and to provide suggestions on ways to avoid or mitigate them.

First, research common fire code violations, and develop an inspection checklist to promote more consistent fire safety inspections. Your checklist should include at least 10 checklist items. Each item should reference a specific code, list the most common violations, and list some methods for mitigation. Table format is suggested for your checklist.

Information about accessing the grading rubric for this assignment is provided below.

**Unit VI PowerPoint Presentation**

**Community Outreach PowerPoint Presentation**

Using the same scenario that was presented in the Unit V Project, prepare a 10- to 12-slide PowerPoint presentation (based on your checklist) for the community outreach program. Your presentation should highlight the common code violations and include suggestions to mitigate them. You are encouraged to use pictures to illustrate your points.

You are required to use at least one source for this presentation. This can be your textbook or any other scholarly source. All sources used, including the textbook, must be referenced; paraphrased and quoted material must have accompanying citations. The title and reference slides do not count toward meeting the slide-count requirement.
Unit VIII Project

Fire and Life Safety Education Program Plan

The department has been approached by the school superintendent about starting a Fire and Life Safety Education Program for all grades, K–12. As the fire inspector, this project will fall under your responsibility. The superintendent has asked that you submit your program plan in writing so that it can be reviewed and discussed at the next school board meeting. If your plan is approved, the program will begin the next school year. However, there are budget constraints, and several members of the school board feel like there are more important areas and programs that need funding.

You are to create a plan for a Fire and Life Safety Education Program. Given the circumstances with some of the school board members, your plan should begin with a summary of a comprehensive overview of general fire safety for occupied buildings. You should also demonstrate rationale for the general fire safety provisions as methods of fire protection. Let them know how important this program is through the short-term and long-term benefits to students and to the community as a whole. Also, be sure to include the following elements:

- goals for the program,
- organization of grades (Will you group some grades?),
- a broad outline of the topics to be taught,
- broad details of any special events/activities, and
- a plan to keep the program going, year after year. (Will certain grades be taught certain topics each year so that, as student progress, they learn new things?)

Your response must be at least two pages in length and be formatted in APA style. All sources used, including the textbook, must be referenced; paraphrased and quoted material must have accompanying APA citations. The title and reference pages are not included in the page-count requirement.

Information about accessing the grading rubric for this assignment is provided below.

APA Guidelines

The application of the APA writing style shall be practical, functional, and appropriate to each academic level, with the primary purpose being the documentation (citation) of sources. CSU requires that students use APA style for certain papers and projects. Students should always carefully read and follow assignment directions and review the associated grading rubric when available. Students can find CSU’s Citation Guide by clicking here. This document includes examples and sample papers and provides information on how to contact the CSU Success Center.

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**

- Unit I Essay = 9%
- PowerPoint Presentations (3 @ 14%) = 42%
- Projects (2 @ 11%) = 22%
- Unit III Case Study = 9%
- Unit V Scholarly Activity = 9%
- Unit VII Assessment = 9%

**Total** = 100%

**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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## Unit I  Understanding the Code Process and Inspections

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<thead>
<tr>
<th>Review:</th>
<th>□ Unit Study Guide</th>
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| Read: | □ Chapter 1: Introduction to Fire Inspector  
□ Chapter 5: Performing an Inspection  
□ Suggested Reading: See Study Guide |
| Submit: | □ Essay |

Notes/Goals:

## Unit II  Understanding Building Code

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| Read: | □ Chapter 2: Building Construction  
□ Chapter 3: Types of Occupancies  
□ Suggested Reading: See Study Guide |
| Submit: | □ PowerPoint Presentation |

Notes/Goals:

## Unit III  Understanding Fire Behavior

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| Read: | □ Chapter 4: Fire Growth  
□ Chapter 10: Portable Fire Extinguishers  
□ Suggested Reading: See Study Guide |
| Submit: | □ Case Study |

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<td>Read:</td>
<td>□ Chapter 7: Occupancy Safety and Evacuation Plans</td>
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<td>□ Chapter 13: Safe Housekeeping Practices</td>
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### Unit VIII: Fire Inspector

**Review:**
- Unit Study Guide

**Read:**
- Chapter 15: Life Safety and the Fire Inspector
- Suggested Reading: See Study Guide

**Submit:**
- Project

**Notes/Goals:**