

National Fire Academy Recruitment Online Mediated Instruction Course

Fire Protection Structures and Systems (C0262)

The National Fire Academy is currently recruiting students to help pilot-test the **online instructor mediated course**, *Fire Protection Structures and Systems* (C0262). The course will be delivered through NFA Online, www.nfaonline.dhs.gov.

Course Description: This course examines the underlying principles involved in structural fire protection systems, building furnishings, and fire protection systems including water-based fire suppressions systems, fire alarm and detection systems, special hazard suppression systems, and smoke management systems.

At the end of this course, students will be able to:

- Analyze building structural components for fire endurance and fire resistance.
- Understand the flame spread and smoke production properties of building furnishings and materials.
- Analyze, evaluate, and determine appropriate use for fire detection and alarm systems; water-based fire suppression systems; special hazard fire suppression systems; and smoke management systems, with a sophisticated understanding of how they integrate to function as a complete life safety system.
- Understand the fundamental principles related to structural fire protection, building furnishings, and fire protection systems.

Course Delivery: An online instructor mediated course balances self-study components with interactions and discussions among the students and the instructor. This course is done in an asynchronous fashion. Students and the instructor will likely be online at different times and will post and respond to discussions on their own schedule. After reviewing the self-study materials, the students will have the opportunity to participate in discussions with other students on various assigned topics. The instructor will open each module, provide feedback on assignments, summarize discussions, and provide mentoring to meet the unique needs of individual students.

This course is being offered in conjunction with the following colleges and universities and **may be** eligible to receive college credit:

Cogswell College - <http://firescience.cogswell.edu/>

Empire State College/SUNY - <http://www.esc.edu/>

University of Cincinnati - <http://www.uc.edu/>

University of Maryland, University College - <http://www.umuc.edu/spotlight/firescience.cfm>

Western Illinois University - http://www.wiu.edu/distance_learning/firefighters/

Western Oregon University - <http://www.wou.edu/las/socsci/fsa/index.php>

For more information concerning college credit eligibility please contact these schools directly.

Prospective students should have a thorough understanding of the course requirements before submitting their application and should review the Sample Module Lesson Assignment (shown below). **IMPORTANT NOTE:** This is a college-level, writing intensive course and all students will be expected to adhere to the American Psychological Association (APA) Style Guidelines for all written assignments. A tutorial for this format can be found at: <http://www.apastyle.org/>

Important Dates:

Application Period: Applications accepted now until March 15, 2013

Course begins April 15, 2013

Course ends: July 7, 2013

Please Note: This is a 12 week course.

Student Selection Criteria:

- Individuals whose primary duties are those of a full-time fire or building code enforcement inspector.
- Individuals who have the responsibility to train personnel involved in code enforcement activities.
- Suppression company officers responsible for in-service fire code enforcement activities.

Class Size: 25 students

Course Requirements: The course includes five modules; one module will be released online every two weeks. For each module, participants will be required to:

- complete the required textbook readings
- complete the online content, which includes participation in discussion forums and the submission of an individual written paper for **each** module. A sample module lesson assignment is included below (all module lesson assignments have similar requirements);
- interact with instructor and other student participants.

Costs and Fees: This course is offered free-of-charge. Students will be required to obtain a textbook.

Textbook Requirement: National Fire Protection Association *Fire Protection Handbook*®, 2004 Edition or later. **This is a two-volume set and both volumes must be obtained.**

The 2008 Edition of the textbook is available for purchase. *Fire Protection Handbook 2008 Edition (National Fire Protection Association), Volume I and II, Arthur E. Cote (Editor), 20th edition. Publisher: National Fire Protection Association; ISBN #: 0877657580.*

The cost for the textbook ranges between \$211.00 and \$308.00 and students can purchase it directly through one of the following websites:

www.barnesandnoble.com*

www.amazon.com

www.nfpa.org (member discounts available)

*Barnes and Noble provides an option to rent the textbook for a 90-day period for approximately \$70.00, more information can be found on their website. The textbook may also be available from your local library or fire station.

NOTE: **Do NOT** purchase the textbook until you have been notified by the NETC Admissions Office of your acceptance into this pilot offering.

In addition to the textbooks, you will be reading a number of course documents, articles, online resources, and Web-based research articles.

Additional Requirements:

Participation will require an active account in NFA Online. (www.nfaonline.dhs.gov) Registration in NFA Online is free.

Upon acceptance to the course, we will provide you access to our classroom discussion forum along with additional instructions.

Technical Requirements:

The system requirements listed below are required for the course to work properly:

- Internet Explorer 7 or 8 recommended
- Adobe Acrobat Reader 9 or higher
- Microsoft Word 2003 or higher
- Pop-up Blockers Turned OFF
- Optimal screen resolution 1024 x 768

How to Apply:

- Students must complete the General Admission Application (FEMA Form 119-25-1) available on the NFA website at: www.usfa.dhs.gov/nfa/about/attend/apply.shtm
- Completed applications should be submitted by March 15, 2013 to:
NETC Admissions Office
16825 South Seton Avenue
Emmitsburg, MD 21727
- Completed applications can also be:
 - Faxed to the NETC Admissions Office at 301-447-1441
 - Emailed to the NETC Admissions Office (as a pdf document): NETC-Admissions@fema.dhs.gov

Course Acceptance: You will be notified by the NETC Admissions Office by April 1 if you are accepted into this course offering. Please do not purchase the textbook until you are notified of your acceptance.

Sample Module Lesson Assignment

Module 1 – Discussion Forum

Over the past 30 years, the model building and fire codes increasingly have called for the installation of fire sprinkler systems in buildings. At the same time, the requirements for passive methods that confine the spread of fire and smoke in a building have decreased as an alternative in buildings that are equipped with sprinklers. Some fire protection engineers and other fire safety experts believe this has compromised the safety of America's buildings. Read the following article by Ritat Tatum, "[Balanced Approach to Fire Safety](#)" from the November, 2004 issue of *Building Operating Management*, which highlights the importance of having balance in fire protection design.

Describe why balanced fire protection in building design is important to the health, safety, and welfare of the public. In your discussion, give one example of a code "trade-off" that is used currently in a model building or fire code. Include the exact code citation. Also, do you feel this "trade-off" is compromising public safety? Be sure to include a discussion of reliability and economics in your discussion.

Discuss

Participate in this discussion in the discussion area for this course. After posting your original topic, follow up by responding to at least two of your colleagues with 125-word responses. Your postings must always combine your original thinking and opinion with authoritative references. Cite your sources, check your spelling and grammar, and make sure that your postings are well-written.

Module 1 – Written Assignment

Choose one of these three building types and discuss how the material properties of the specific structural components react to elevated temperatures:

- Warehouse--unprotected steel columns, beams, and trusses
- Parking garage structure--concrete columns and floor slabs
- Mill building--heavy timber construction

Be sure to discuss why it is important for an Incident Commander (IC) or fire chief at a structural fire to understand the concepts in the above question.

Your essay should be three to five double-spaced pages in length. The essay should have a formal introduction, a statement of purpose on the first page, a body, and a conclusion. Be sure to credit all sources.

Please Note: Students must follow APA Style Guidelines: <http://www.apastyle.org/>

General Instructions for Written Assignments

Your written assignment is intended to measure your understanding of important concepts and sharpen your intellectual skills of analysis, synthesis, evaluation, and application. The intent of the written assignment is to provide an opportunity for you to demonstrate the knowledge you are gaining on the topics in this course.

Grading and Course Schedule

Read Course Orientation/About This Course Module

April 15 - 28, 2013

Module 1 – Structural Fire Protection

Readings: Module 1 and required readings*

Discussion #1 Due 4/21 **3 Points**

Discussion Responses Due 4/28 **3 Points**

Written Assignment #1 Due 4/28 **14 Points**

April 29 – May 12, 2013

Module 2 – Building Furnishings and Materials

Readings: Module 2 and required readings*

Discussion #2 Due 5/5 **3 Points**

Discussion Responses Due 5/12 **3 Points**

Written Assignment #2 Due 5/12 **14 Points**

May 13 – 26, 2013

Module 3 – Fire Detection and Alarm Systems

Readings: Module 3 and required readings*

Discussion #3 Due 5/19 **3 Points**

Discussion Responses Due 5/26 **3 Points**

Written Assignment #3 Due 5/26 **14 Points**

May 27 – June 2, 2013 - BREAK

June 3 – 16, 2013

Module 4 – Fire Suppression Systems

Readings: Module 4 and required readings*

Discussion #4 Due 6/9 **3 Points**

Discussion Responses Due 6/16 **3 Points**

Written Assignment #4 Due 6/16 **14 Points**

June 17 – 30, 2013

Module 5 – Smoke Management Systems

Readings: Module 5 and required readings*

Discussion #5 Due 6/23 **3 Points**

Discussion Responses Due 6/30 **3 Points**

Written Assignment #5 Due 6/30 **14 Points**

Course concludes July 7, 2013 – Final papers returned July 1-7, 2013

*Required readings are listed at the beginning of each module

All discussions and assignments are due by 11:59 p.m. on the due date

Submit assignments to:
nfadepsupt@gmail.com

Point Totals:

Discussions	30 Points
Assignments	70 Points
Total	100 Points

Grading:

A = 100 – 90% (100-90 points)
B = 89 – 80% (89-80 points)
C = 79 – 70% (79-70 points)
D = 69 – 60% (69-60 points)
F = 59% - Below (59 points & below)