

Introduction to Fire Protection

College/Division: Western Illinois University, College of Education and Human Services

Credit Hours: 3.0

Instructor's Name: William P. McCamey, Ph.D., Professor

Course Description: Organization and function of fire protection; inspections and hazard analysis; economics and survey of fire equipment and technology; examination of direct and indirect personnel functions; responsibilities and coordination with emergency agencies.

Prerequisites: None

Restrictions/Suggestions: Computer with an Internet connection; email address.

Rationale: Fire protection agencies in the United States operate in a climate of constant change. This course has been updated to reflect the traditional tasks of fire protection agencies and, at the same time, discuss the issues students will encounter related to emergency management, community fire risk, terrorism, shortages of volunteer personnel to list a few.

Intended audience: Students interested in emergency management, private security, fire service, homeland security and law enforcement related careers.

Student Learning Outcomes:

By the end of this course, students will:

- 1) Explain how the various components of fire protection organizations are interrelated.
- 2) Identify the structure and operations of fire protection organizations.
- 3) Examine the role of fire protection at the local, state and federal level.
- 4) Define terminology relevant to fire protection in the U.S.
- 5) Explain the professional responsibilities of components within fire protection organizations.

Required Text: Klinoff, Robert, W. (2007). *Introduction to Fire Protection*. 3rd ed. Clifton, NY Thomson Publishing.

Topical/subject matter outline/Course Content: The course introduces the student to various areas associated with fire protection. The course will examine in depth: fire

technology education, selection processes, fire protection career opportunities, public fire protection, chemistry and physics of fire, public and private support organizations, fire department resources, fire department administration, support functions, training, fire prevention, laws, codes and ordinances, fire protection systems and equipment, emergency incident management, and emergency operations.

Module Objectives

- 1) Examine the selection process for emergency personnel.
- 2) Understand the relationships between emergency personnel at the local, state, and federal levels.
- 3) Analyze the evolution of the fire service and emergency services and the fire problem in the U.S.
- 4) Explain the chemical and physical properties of fire.
- 5) Compare and contrast the stages of a typical structure fire.
- 6) Understand the numerous support organizations associated with emergency services.
- 7) Examine the various types of equipment employed in fire protection.
- 8) Comprehend various principles associated with fire protection administration.
- 9) Analyze the different types of fire organizations.
- 10) Examine the different forms of training and the importance of training.
- 11) Explain the importance of stress management for emergency personnel.
- 12) Understand the importance and the process of implementing fire prevention.
- 13) Compare and contrast the various types of fire codes and ordinances.
- 14) Examine the various types of fire protection systems.
- 15) Describe the process of incident planning.
- 16) Identify the functions of the fire service in emergency operations.

(Klinoff, 2007)

Course Activities:

Three Written Assignments: a minimum of six to seven pages per assignment, typed. The assignments will be graded based on content, grammar and style.

Ten Discussion Questions: each student will be able to extract expertise from the training, education and experience of other students. Students are required to post a response to the discussion questions and continue the discussion with additional posts after reading other student's comments.

Research Paper: The paper must be a minimum of six pages. Topics must be approved by the instructor and materials used in the paper must be properly cited. A minimum of five sources excluding the textbook is required. The paper must contain an Introduction or statement of the issue.

The Body of the paper involves a presentation of the results of the research. The Conclusion must be a summary of the results with recommendations. A check list of nine items concerning grammar, format, style, structure, citations, and transitions is provided.

Final Examination: An online final examination will be administered at the end of the course. The exam is composed of multiple choice and true false questions and is based on the entire textbook, Power Point slides, videotaped lectures and the practice quizzes.

Practice Quizzes: Each student is expected to participate in the practice quizzes which are based on materials presented in the modules.

Evaluation:

Three written assignments:	300 points
Ten discussion questions	100 points
Research Paper	100 points
Final Examination (comprehensive)	100 points
Total Points	600 points

- A** 540 to 600 points
- B** 480 to 539 points
- C** 420 to 479 points
- D** 360 to 419 points
- F** below 360 points

Bibliography/References:

DeHaan, J.D. (2007) *Kirk's Fire Investigation*. 6th ed. Upper Saddle River, NJ: Prentice Hall.

Icove, D.J. & DeHaan, J.D. *Forensic Fire Scene Reconstruction*. Upper Saddle River, NJ: Prentice Hall.

InterFire Online. Available online at: <http://www.interfire.com>

National Fire Academy. (numerous publications, online materials)
Emmitsburg, MA: National Fire Academy.

National Fire Protection Association. (2008). *Fire Protection Handbook*. Quincy, MA: National Fire Protection Association.

Ward, M. (2005). *Fire Officers Principles and Practices*. Sudbury, MA: Jones and Bartlett Publishers.

Zalosh, R. G. (2003). *Industrial Fire Protection Engineering*. Hoboken, MA: Wiley Publishers.