

FIRE 263 : HUMAN BEHAVIOR IN FIRE

Transcript title

Human Behavior in Fire

Credits

3

Grading mode

Standard letter grades

Total contact hours

30

Lecture hours

30

Prerequisites

FIRE 104, FIRE 105, FIRE 110, FIRE 112, FIRE 114, FIRE 120, FIRE 205, and MTH 098 (or higher) or minimum placement Math Level 14.

Course Description

Provides fundamental information on human behavior as it relates to fire and mass casualties, understanding human behavior, building design, evacuation and fire department operations. Discusses issues associated with large populations and disabled or persons with limited mobility. FESHE fire prevention curriculum requirement equivalent to NFA C0276.

Course learning outcomes

1. Analyze aspects of human behavior in mass casualties.
2. Categorize the types of behavior that people exhibit in fire situations as positive or negative as they effect emergency evacuation.
3. Identify psychological traits of building occupants which may affect their identification of and response to a fire.
4. Estimate evacuation times in occupied buildings, large buildings, and transportation facilities.
5. Identify occupancies where human behavior and response characteristics are unique to occupancies and where there is a high potential life loss.
6. Identify characteristics and list procedures for response for occupancies where human factors and building design may be factors in emergency evacuation.

Content outline

The learning outcomes are those of the National Fire Academy (NFA).

1. Introduction
2. General overview of human response to fire
3. Occupant response characteristics: familiarity with structure, pre-evacuation behavior
4. Human response to cues: alarms, signs, pre-planning/staff training
5. Decision making: panic as a rare occurrence
6. Egress behavior and decision making
7. Impact of environment on people: thermal, toxicity, visibility, psychological, perception of smoke and fire

8. Assessment of occupant movement in buildings
9. Evacuation assessment fundamentals: horizontal and vertical flow
10. Modeling of evacuation: hydraulic and behavioral
11. Special occupancies: high rise, health care (hospital, board/care)
12. Public assembly: stadium and arenas
13. Residential
14. Transportation terminals
15. Hazmat occupancies
16. Use of elevators
17. Fire department operations
18. Evacuation and rescue: provide information to evacuees, occupant egress vs. fire department ingress
19. Firefighting: heat stress, exposure to smoke, toxins and hazardous gases
20. Mass casualties

Required materials

This course requires students to purchase a textbook.