

FPST 1373 Human Behavior Outline

- I. Building conditions
 - a. Construction classifications: NFPA
 - i. Type I (Concrete)
 - ii. Type II (Steel)
 - iii. Type III (Wood frame with brick exterior)
 - iv. Type IV (Heavy timber)
 - v. Type V (Wood frame)
 - b. Detection system
 - c. Notification system
 - d. Means of egress
 - i. How people move to safety
 - e. Height
 - f. Fire load
- II. Personal characteristics
 - a. Number of occupants
 - b. Physiological characteristics
- III. Response of occupants
 - a. Role
 - i. Can vary by situation (home vs. work)
 - b. Time
 - i. Different response based on time of day
 - c. Appearance of fire
 - i. Personalization of risk
 - d. Method of notification
 - i. Personalization of risk
 - e. Level of training
 - i. More training typically leads to better response
 - ii. Diminishing returns
 - f. Expected actions
 - i. People will do what they think they are supposed to do
 - g. Decision making process
 - i. Recognition
 - 1. Physically sense cues
 - ii. Validation
 - 1. Confirm what it is that is being sensed
 - iii. Definition
 - 1. Identify what the cues mean
 - iv. Evaluation
 - 1. Consider alternatives
 - v. Commitment
 - 1. Choose the best course of action
 - vi. Reassessment
 - 1. Only if first choice failed
 - 2. Leads to stress and anxiety
 - 3. Avoid this step
- IV. Influencing factors

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- a. Visual access
 - i. Can people see where they are going
 - b. Familiarity
 - i. Will know alternatives
 - c. Role and responsibility
 - d. Position
 - i. Physical location within building
 - e. Commitment
 - f. Training
 - g. Confidence in signals
 - i. Cry Wolf
 - h. Method of notification
 - i. Trust
 - ii. Personalization of risk
 - 1. Risk appetite
 - a. Can be situational
- V. Effects from fire
 - a. Visibility
 - i. Cannot find exit
 - b. Heat
 - i. Burns
 - c. Smoke
 - i. Asphyxiants
 - ii. Irritants
 - d. Low oxygen
 - e. Designing for tenability
 - i. Incapacity
 - 1. More conservative
 - ii. Fatality
 - iii. Not all people are the same
 - f. Spread
 - i. Building conditions
 - g. Hazards
 - i. Furnishings and finishes