

# DOD FIRE SERVICE CERTIFICATION SYSTEM

## LESSON PLAN 1

**Personnel Classification:** Fire Instructor I

**Subject:** Roles and Responsibilities

### NFPA 1041 Objectives

2-10.1

2-10.2

2-10.3

### Training Materials/Equipment:

Classroom, chalkboard or equivalent

### References:

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

NFPA 1041: Fire Service Instructor Professional Qualifications, 1992 National Fire Protection Association, Quincy, Massachusetts.

Bulletin Number FSTB-402, Achieving Job-Related Selection for Entry-Level Police Officers and Firefighters, U.S. Office of Personnel Management

### Additional Information:

#### Written

IFSTA, Orientation and Terminology, 3rd Edition, 1993, Fire Protection Publications, Oklahoma State University.

**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
- ¥ Review references for lesson.
- ¥ Use additional references and your knowledge to enrich lesson outline.
- ¥ Select and prepare any additional audio-visual aids that may assist in the presentation of the lesson.
- ¥ Ensure that all equipment needed, including any audio-visual equipment, is available.
- ¥ Review lesson at end of session to ensure student understanding.
- ¥ Ensure that the objectives of the lesson have been adequately covered.

## INTRODUCTION AND OBJECTIVES

- I. Greet class
- II. State purpose of the lesson
- III. Establish relation to following lessons
- IV. Review NFPA 1041 objectives for this lesson
- V. Review additional objectives for this lesson

## PRESENTATION

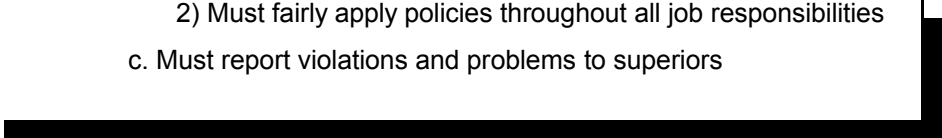
### LESSON OUTLINE

- 2-10.1 The organization's chain-of-command
  - A. Review the instructor's position in the organization
    1. The organizational chart
    2. Levels of instructor within the system
    3. The instructor's position
    4. Superiors
  - B. Role in the organization
    1. Primary Role
      - a. Plan training
      - b. Conduct training
    2. Ensuring performance standards are met
      - a. National Fire Protection Association Professional Qualification Standards
      - b. Organizational performance standards
      - c. Must measure performance consistently, with valid test
    3. Types of test which provide feedback on student learning
      - a. Performance (skills) test
      - b. Written (knowledge) test
    4. Other roles
      - a. Evaluate and re-evaluate training program and testing
      - b. Provide feedback to course designers
      - c. Observe firefighters to determine training needs
    5. Training is not limited to recruits
      - a. Firefighter levels and officers

- c. Special topics (e.g. leadership, hazardous materials, etc.)
  - 6. Colleges and state or regional training offer additional training opportunities
- 2-10.2 The instructor's responsibility to the fire service, administration, and student
- A. Responsibility to the fire service
    - 1. Fire service is different because wrong actions can be devastating
    - 2. Safety of those in the fire service is closely linked to proper training
    - 3. Instructors must stay up-to-date on improvements, techniques, and acceptable practices or standards
    - 4. Be devoted to saving lives
    - 5. Be a student, as well as a teacher
  - B. Responsibility to the administration
    - 1. Ensure students meet the organization's performance standards and all lesson plans are completed.
    - 2. Provide training program feedback
      - a. Student performance
      - b. Records
        - 1) Attendance
        - 2) Test scores
        - 3) Progress and student achievement reports
        - 4) Program administration
        - 5) Safety Practices
    - 3. Follow required guidelines
      - a. For safety reasons
      - b. For legal reasons
    - 4. Competently teach the subject matter with professionalism, enthusiasm and integrity
  - C. Responsibility to the student
    - 1. Cover all requisite training topics
    - 2. Coach performance
    - 3. Motivate by being enthusiastic, empathic, and professional
    - 4. Communicate effectively to gain credibility
      - a. Be honest

- c. Avoid bluffing, sarcasm, complaining, and comedy
  - 5. Be unbiased and attentive to learning needs
  - 6. Provide for mental and physical safety
  - 7. Teach up-to-date material
    - a. Obtained through professional development
    - b. Because the fireground is not the place to second guess training
  - 8. Promote fair, unbiased testing
  - 9. Remember that the students lives depends on receiving quality training
- 2-10.3 Equal employment opportunity (EEO) and affirmative action programs
- A. Discuss EEO and affirmative action programs
    - 1. EEO
      - a. Established in 1972
      - b. Strictly applies to all government agencies and private industries with government contracts
      - c. Broadly applies to all businesses through state adoption
      - d. Created to ensure all applicants are hired on job-related criteria and not excluded due to gender, race, ethnic background, disability, or religious preference.
      - e. Requires systematic selection for hiring and promotion
        - 1) Based on job-related criteria
        - 2) Linked to fair testing and evaluation
    - 2. Affirmative action
      - a. Closely related to EEO programs
      - b. Goal is to promote a workforce that fairly represents the sexual and ethnic composition of the surrounding area population throughout all levels and jobs of the organization.
      - c. Purpose is correct past inequities to special populations
      - d. Programs are designed to identify, hire, and promote special populations to balance the organization's personnel toward the make-up of the area population
      - e. Often a part of the EEO program plan
    - 3. Who is responsible for EEO and Affirmative action programs
      - a. Usually established and administrated by the personnel department
      - b. Instructors responsible for ensuring compliance with policies during training and testing
        - 1) Must be aware and understand relevant sections of the

## Instructor Notes

- 2) Must fairly apply policies throughout all job responsibilities
  - c. Must report violations and problems to superiors
- 

## Instructor Notes

4. Resources to enhance understanding
  - a. The organizations policies and procedures manual
  - b. The personnel department
  - c. Superiors
  - d. Bulletin Number FSTB-402, *Achieving Job-Related Selection for Entry-Level Police Officers and Firefighters* created by the U.S. Office of Personnel Management
  - e. The International Association of Fire Chiefs

## REVIEW

- I. Discuss key lesson points.
- II. Ask questions on the material covered.
- III. Review material that may be unclear.
- IV. Administer test or quiz.
- V. Critique test or quiz.

## SUMMARY

- I. Summarize what has been covered.
- II. Relate what has been covered to the next lesson.

### DOD FIRE SERVICE CERTIFICATION SYSTEM

#### LESSON PLAN 2

**Personnel Classification:** Fire Instructor I

**Subject:** Safety

**NFPA 1041 Objectives**

2-10.4

**Training Materials/Equipment:**

Classroom, chalkboard or equivalent

**References:**

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

NFPA 1041: Fire Service Instructor Professional Qualifications, 1992 National Fire Protection Association, Quincy, Massachusetts.

IFSTA, Fire Department Occupational Safety, 2nd Edition, 1991, Fire Protection Publications, Oklahoma State University.

NFPA 1500: Fire Department Safety and Health Programs, 1992 National Fire Protection Association, Quincy, Massachusetts.

NFPA 1402: Guide to Building Fire Service Training Centers, 1985 National Fire Protection Association, Quincy, Massachusetts.

NFPA 1403: Standard on Live Fire Training Evolutions in Structures, 1986 National Fire Protection Association, Quincy, Massachusetts.

NFPA 1501: Standard for Fire department Safety Officer, 1987 National Fire Protection Association, Quincy, Massachusetts.

NFPA 1410: Training Standard on Initial Fire Attack, 1988 National Fire Protection Association, Quincy, Massachusetts.



**Additional Information:**

**Written**

IFSTA, Building Construction, 1st Edition, 1986, Fire Protection Publications, Oklahoma State University.

Dunn, Vincent, Collapse of Burning Buildings, Fire Engineering Books and Videos, Fire Protection Publications, Oklahoma State University

**Audio-Visual**

IFSTA Firefighter Videotape Series, Safety Fire Protection Publications, Oklahoma State University.

Dunn, Vincent, Collapse of Burning Building Videotape Series, Fire Engineering Books and Videos, Fire Protection Publications, Oklahoma State University

Action Training Systems, Incident Safety Officer, Fire Protection Publications, Oklahoma State University

**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
- ¥ Review references for lesson.
- ¥ Use additional references and your knowledge to enrich lesson outline.
- ¥ Select and prepare any additional audio-visual aids that may assist in the presentation of the lesson.
- ¥ Ensure that all equipment needed, including any audio-visual equipment, is available.
- ¥ Review lesson at end of session to ensure student understanding.
- ¥ Ensure that the objectives of the lesson have been adequately covered.

## INTRODUCTION AND OBJECTIVES

- I. Greet class
- II. State purpose of the lesson
- III. Establish relation to previous and following lessons
- IV. Review NFPA 1041 objectives for this lesson
- V. Review additional objectives for this lesson

## PRESENTATION

### LESSON OUTLINE

#### 2-10.4 The instructor's role in ensuring safe training

##### A. Overview the importance of safety in all fire service activities

1. Fire service has one of the highest accident rates for any occupation
2. Safety not historically emphasized
3. Fire service is inherently dangerous
4. Training departments and instructors should proactively improve the safety margin for firefighters

##### B. Review legal issues

1. Instructors are in a professional position of high trust
  - a. As part of the human resource team
  - b. With responsibility for promoting the career opportunities of students
  - c. With significant legal implications if they fail to meet their job performance requirements
  - d. Routine actions and duties have a high impact towards protecting both themselves and their department from legal disputes
2. Review legal terms and implications
  - a. American Law has roots in English Common Law
    - 1) Common Law doctrine transferred to American Law
    - 2) Doctrine of Sovereign immunity came from the English Kings position that the King, thus the government, was immune from legal suits
    - 3) Transferred to the States, originally protecting federal, state, and local governmental agencies from liability torts  
liability for actions during the performance of official

## Instructor Notes

- 4) Sovereign immunity applied to individuals as well
- 5) 1946, US Government waived its immunity from liability
- 6) Since then, continuing trend away from governmental immunity
- 7) Individual, as well as agency, can be held liable in tort.

### b. Tort liability

- 1) A civil wrong or injury
- 2) Main purpose is to seek payment for injuries and property damage based on an organization's or individual's responsibility according to law
- 3) Responsibility implies that if a wrong occurs, organizations and or individuals must respond to legal allegations
- 4) Minimize litigation potential by avoiding negligence
- 5) Recite common examples of instructor liability

### c. Conditions for liability

- 1) The defendant owed a legal duty which was the minimum required to protect the students from unreasonable risk
- 2) The instructor failed to act according to that duty
- 3) There is a causal relationship between the action or inaction of the instructor and the resulting injury
- 4) The person suing sustained damages

### d. Critical elements for instructors

- 1) Proving breach of duty, or failure to act in a reasonable and prudent manner forms one of the important elements for the plaintiff
- 2) Instructors can be found negligent for wrongful performance (malfeasance) or for not performing when action should have been taken (nonfeasance)
- 3) Standard of Care is the care in which the instructor applies during the performance of their duties
- 4) Standard of Care is based on what reasonable, careful, and prudent fire service instructors would do given a similar situation
- 5) The more expertise an instructor has, the greater their responsibility--thus their liability exposure
- 6) Instructors have the responsibility to reasonably act given available information and resources
- 7) The reasonableness of an action is judged by: gravity of harm posed during the situation, likelihood of harm, availability of resources, usefulness of the condition for other purposes, and the burden of removing the hazardous

## Instructor Notes

8) Instructors are responsible to make efforts to foresee dangerous situations and take action to minimize student risk not only during training, but also on the job

9) Training to recognized standards of practice, and competency testing, reduce liability exposure

### e. Legal expectations

1) Have a plan or strategy to prevent injuries

2) Follow the plan

3) Provide for health and safety

4) Provide proper, complete instruction

### f. Reducing liability exposure and chance of lawsuits

1) Maintain written training objectives

2) Document each training activity

3) Check equipment regularly for safe operating conditions

4) Instruct and test all students in safe equipment operations

5) Ensure students are physically fit and prepared for course activities

6) Provide students with written information and descriptions of the course

7) Keep student information private, according to policy

8) Never leave the students unattended during hazardous exercises or when dangerous conditions exist

## C. Overview the instructor's role in promoting safety

### 1. Instructor has significant impact

a. New recruits almost always interact with instructor

b. Early training often sets safety thinking in motion throughout career

c. Firefighters should be trained and qualified for the type of incidents which they will attempt to control

d. Safety must be given the highest priority throughout training

e. Always demonstrate to fire fighters the "right, safe way", they will discover the "wrong way" on their own

f. Safety must be stressed at the station, at incidents, and in emergency vehicles

### 2. Safety programs

a. Safety cannot be overemphasized

b. Departments should have a written safety policy

## Instructor Notes

- 2) For training
  - 3) Read by management, at the onset of training, showing their support
  - 4) Which adheres to standards and guidelines
  - 5) Should include accident investigation protocols to determine why accidents happened and aid instructors to revise training
- c. All departments should implement a safety program, which includes
- 1) An appointed safety officer
  - 2) Accurate accident and injury records
  - 3) Continuous, ongoing training
  - 4) Program guidelines tied to the safety policy
3. Safety in the classroom
- a. Mainly an issue during demonstrations
  - b. Demonstrate while stressing safety during each step
    - 1) Avoid trying to impress students with speed
    - 2) Discuss safety issues while walking through the demonstration
  - c. Check equipment and tools for operability before class
  - d. When students are to practice in the classroom, make sure safety demonstrations occur first
  - e. Always be present during practical exercises
  - f. Insure the safety of those who act a victims or role play
5. Safety on the training ground
- a. Due to the nature of the job, practice evolutions are hazardous
  - b. Must constantly balance safety and value of the evolution
  - c. Students must be checked to insure fitness for evolutions
  - d. All equipment, apparatus, and facilities must be checked before class
    - 1) According to operational guidelines
    - 2) Document all readiness checks
  - e. Conduct practical exercises and evolutions strictly according to training objectives and guidelines
  - f. Use recognized performance criteria and checklist
  - g. All personal protective equipment should meet or exceed departmental guidelines for standard usage and operational readiness
  - h. Safety officers should be assigned to each evolution and

## Instructor Notes

- i. Damaged protective equipment, tools, or facilities should be quickly placed out of service and documented or reported according to departmental guidelines

## Instructor Notes

- j. Student discipline must be maintained during the training
  - 1) Inherent risk associated with evolutions cannot be elevated by undisciplined students
  - 2) Discipline should be strict and fair
  - 3) Rules of conduct must be explained before the evolutions begin
- k. Instructors should continuously reflect safe practices while on the training ground

### REVIEW

- I. Discuss key lesson points.
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### SUMMARY

- I. Summarize what has been covered.
- II. Relate what has been covered to the next lesson.

### **DOD FIRE SERVICE CERTIFICATION SYSTEM**

### **LESSON PLAN 3**

**Personnel Classification:** Fire Instructor I

**Subject:** Adult Learners, Communications, and Student Management

### **NFPA 1041 Objectives**

- 2-8.2
- 2-8.1
- 2-9.1
- 2-9.2
- 2-4.4

**Training Materials/Equipment:**



## Instructor Notes

Classroom, chalkboard or equivalent

### References:

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

NFPA 1041: Fire Service Instructor Professional Qualifications, 1992 National Fire Protection Association, Quincy, Massachusetts.

### Additional Information:

Written

Mack, Gary, M.A.P., 1st Edition, 1991, Phoenix Fire Department, Phoenix

**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
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**INTRODUCTION AND OBJECTIVES**

- I. Greet class
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- V. Review additional objectives for this lesson

**PRESENTATION**

**LESSON OUTLINE**

2-8.2 Learning principles

A. Learning definition

- 1. Relatively permanent change in behavior
- 2. Acquired through new information, skills, or attitudes
- 3. From or through experience
- 4. Reinforced through practice and enhanced by intensity or frequency of experience

B. Learning can be by design or incidental to experience

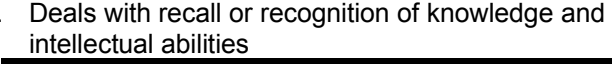
C. Adult learners

- 1. Adult learners are somewhat different from children
- 2. Adults have many experiences to relate new information to
- 3. Adults are goal oriented learners
- 4. Adults need to sequence or organize information
- 5. Adults learn best when they actively participate in the learning
- 6. Adults learn more quickly when they problem-solve
- 7. Adults need to set their own pace
- 8. Adults need frequent feedback about their progress
- 9. Adults sometimes lack confidence in their learning ability
- 10. Adults are more different from one another

D. Three types of learning domains

- 1. Cognitive (knowledge) Learning

## Instructor Notes

- a. Deals with recall or recognition of knowledge and intellectual abilities
- 

b. Six progressive cognitive levels developed by Bloom and Associates

- 1) Knowledge
- 2) Comprehension
- 3) Application
- 4) Analysis
- 5) Synthesis
- 6) Evaluation

c. Usually taught via lecture and classroom activities

d. Testing is written or oral test, most often

2. Psychomotor (skill) Learning

a. Deals with physical manipulation of items or body movement

b. Most common learning domain in the fire service

c. Five progressive psychomotor levels

- 1) Observation
- 2) Imitation
- 3) Adaptation
- 4) Performance
- 5) Perfection

d. Usually taught via training ground exercises or evolution and classroom activities and group exercises

e. Testing is performance evaluations, most often

3. Affective (attitude) Learning

a. Deals with feelings or attitude-related behaviors

b. Relates to awareness, attitudes, interest, appreciation, and values

c. Five progressive affective levels

- 1) Receiving
- 2) Responding
- 3) Valuing
- 4) Organizing
- 5) Characterizing

- d. Differs from cognitive and psychomotor domains in that affective learning must often be inferred from student behavior and is not as observable or measurable
- e. Must look at indicators to measure, not specific measures
- f. Most often taught in classroom or during training field activities and closely linked to other instructional content e.g. appreciate safety when conducting ventilation activities
- g. Learning may not be observable until the student returns to the job
- h. Testing can be included in performance test or written test

E. Laws of Learning

- 1. Based on Thorndike's work
- 2. Six Laws of Learning

a. Law of Readiness

- 1) Person learns best when physically and mentally prepared or adjusted
- 2) Evident when students show interest or anticipation

b. Law of Exercise

- 1) Repetition is basic to learning
- 2) Proficiency is developed through practice
- 3) Needed practice is based on the individual
- 4) Interest, meaning, and goal orientation make practice beneficial and speed up the learning
- 5) Lack of interest and dull activities may result in a lack of proficiency, regardless of the repetition

c. Law of Effect

- 1) Learning increases when the result is seen by the student as being rewarding or satisfying
- 2) Setbacks are acceptable if the overall result is rewarding
- 3) Praise motivates better than punishment or blame

d. Law of Association

- 1) Learning accelerates when students can associate new information with past experiences or previously

## Instructor Notes

- 2) Instructors should make efforts to connect what is being taught to the students previously learned materials

### e. Law of Recency

- 1) Practicing a skill immediately before using it increases performance
- 2) Reviews, warm-ups, and exercises are all based on this principle
- 3) Closely linked to Law of Exercise

f. Law of Intensity

- 1) When the experience (stimulus) is realistic, behavioral change is made easier
- 2) Explain: Demonstration will likely have a greater impact than a video, experience producing activities are better than lecture

2-8.1 Motivational factors

A. Attitudes

1. Instructor

- a. Instructor attitudes expressed through their behaviors
- b. Can positively or negatively influence student learning
- c. Focus on providing positive influences
  - 1) Belief that anyone can learn new skills
  - 2) Reduce student stress and frustrations
  - 3) Accept individual differences
  - 4) Encourage freedom of expression
  - 5) Create pleasant classroom environments
  - 6) Promote success
  - 7) Give recognition for small successes

2. Student

- a. Emotional attitude is vital
- b. Must have clear mind, without being overly concerned about existing or imaginary problems
- c. Need and desire to learn are important attitudes to develop
- d. Motive to learn based on instructor provided stimulus
- e. Closely linked to goal orientation

B. Experience and knowledge

1. Instructor

- a. Critical elements toward gaining student trust
- b. Important in order to have material accepted
- c. Lack of knowledge demotivates students to learn
- d. Knowledge ÓbluffsÓ are easily determined by students



2. Students

- a. Experience and knowledge of a particular subject makes the student more receptive to new information
- b. True because the transfer of knowledge is easier
- c. Instructors should link new to old
- d. Instructor should encourage students to think of alternative ways to question and apply knowledge
- e. Attention spans will dwindle if instructional content is not new or too repetitive based on the student's experience and knowledge

C. Education

1. Students prior educational experiences significantly impact attitude, confidence and ability to handle new learning

2. Three educational experience concerns

a. Educational level

- 1) Based on number of years spent in school
- 2) Higher levels of education often have prepared students to receive new information
- 3) Closely linked to more critical issue of literacy level

b. Literacy level

- 1) Based on ability to read and write
- 2) Must be considered when developing lesson plans and instructional materials
- 3) False assumption: Educational level equals literacy level
- 4) Recently, fire service instructors noticed higher levels of education for entering firefighters, but lower literacy levels
- 5) Methods to overcome learning barriers when instructing lower literacy level students

- (a) Use more visual and training aids, less lecture
- (b) Avoid learning activities based on text and handouts
- (c) Use written materials with short sentences and bullet points
- (d) Provide glossaries for or carefully explain

- (e) Keep classroom vocabulary simple
- (f) Verbally explain all written directions for test and equipment use

c. Learning disabilities

- 1) Almost everyone has some type of learning disability and they find different ways to compensate
- 2) Provide understanding, assistance, and patience for those whose disabilities are a major barrier to learning
- 3) Tutoring, individualized instruction, or specific feedback facilitates learning

D. Personality

- 1. Instructors must remember that all students are individuals, with their own unique personality
- 2. Personalities can be influenced by the learning environment or instructional style
- 3. Differences in personality between the instructor-student and student-student can be used as an advantage to heighten learning
- 4. Differences can become a learning barrier if not recognized or managed
- 5. Personality clashes should be managed through activities assignments or counseling

E. Physical condition

- 1. Firefighter training is inherently intense and dangerous, requiring students to be in good physical condition
- 2. Poor physical condition will result in demotivation
- 3. Fatigue, illness, etc. should be recognized and monitored by the instructor
- 4. Drill grounds are especially prone to injury for improperly prepared students
- 5. Students should be told to notify the instructor if their physical condition can put themselves or others in harms way or of any ailments
- 6. The instructor should always be in good physical condition
- 7. Fatigue can occur in the classroom, resulting in decreased learning
- 8. Methods to reduce fatigue

a.

- b. Appropriate meals
- c. Teach techniques to minimize stress and exertion
- d. Avoid long delays between classroom activities
- e. Ensure equipment is used or worn properly
- f. Always provide and require the use of personal protective clothing and equipment

F. Maslows Hierarchy of Needs

1. Theory that motivation can be created or facilitated by satisfying certain basic needs of all humans
2. The hierarchy has five levels
  - a. Physiological-e.g. comfortable classroom environment
  - b. Security-e.g. requisite knowledge and experience to belong in class
  - c. Social-e.g. accepted by others
  - d. Self-esteem-e.g. accepted by self, through praise etc.
  - e. Self-actualization-e.g. able to perform beyond expectation
3. Self-actualization allows for the highest degree of performance
4. Physiological needs must be met before one can advance to the security level, and so on to achieve self-actualization
5. Based on the training experience, one can move down as well as up the hierarchy

2-9 Communication Principles

- A. Communication skills are critical to the instructor
- B. Communication is about understanding one another
  1. More than speaking well
  2. Requires confirmation that what was said is what was heard
  3. Understanding often requires active participation by all parties involved, often in the form of questioning for clarity
- C. Four elements of communication
  1. Encoding
    - a. Forming the message to be provided
    - b. Based on determined need to give information
  2. Transmitting

- a. Actual conveyance of information
- b. Can include verbal, body language, and visual aids

3. Receiving

- a. Hearing or seeing transmitted information

4. Decoding

- a. Determining the meaning of provided information
- b. Open to interpretation based on
  - 1) What was actually transmitted
  - 2) Receivers experiences
  - 3) Attitude

c. Assessment of multiple cues

- 1) What information was provided
- 2) How was the information provided
- 3) Did the body language support the verbal commentary

D. Different communication mediums

- 1. Verbal
- 2. Body language
- 3. Correspondence
- 4. Instructional materials
- 5. Training aids

E. Ways to improve communications

- 1. Keep it simple
- 2. Explain new or unusual terms
- 3. Think, than speak
- 4. Watch out for misguided body language
- 5. Listen carefully and completely
  - a. Ask questions to clarify understanding
  - b. Restate other's comments or issues
  - c. Avoid interrupting others
  - d. Avoid completing others sentences

6. Support information with visual aids
7. Provide examples

F. Speaking characteristics

1. Instructors must be good speakers
2. Use clear, distinct voice
3. Use fluctuations to keep interest and add emphasis
4. Slow down the speech pattern when giving important information or when students are taking notes
5. Avoid improper grammar, slang, and vulgar language
6. Do not use discriminatory language or remarks
7. Frequently pause to allow for questions
8. Watch for mannerisms which detract from the message

- a. Chewing
- b. Facial expressions
- c. Pacing
- d. Excessive use of Ôpet wordsÕ like Òyou knowÓ or ÒumÓ
- e. Biting fingernails
- f. Frequent adjustments clothing
- g. Jingling coins or keys
- h. Clock watching
- i. Looking away from students or excessive reading

9. Make eye contact with students when speaking
10. Use your hands to reinforce ideas

2-4.4 Student management

- A. Not all adults are great learners
- B. Some students require more or different types of attention
- C. The instructor needs to recognize certain types of individuals and deal with them
- D. Two categories and several types of learners who need special attention

1. Non-disruptive students
  - a. Fast (gifted) learners

## Instructor Notes

- 1) Learn quickly
- 2) Can accomplish more than average student
- 3) Often ahead of the class
- 4) Need to be given assignments deemed challenging to them
- 5) Should not be idle

### b. Slow learners

- 1) Instructors should not jump to conclusions about who is a slow learner
- 2) May be necessary to give individual instruction, extra study assignments, or private conferences
- 3) Instructional methods may need to be adjusted
- 4) Slow learners may respond better to skill based assignments or excel in one area, but not another
- 5) Additional praise can especially benefit

### c. Shy or timid students

- 1) Often have much to offer
- 2) Passive learning is occurring
- 3) Fear often keeps them from actively participating in class
- 4) Should not be pressed to participate
- 5) Informal classes are best for this type of student
- 6) Simple questions and discussions permit safe participation
- 7) If gradually led, shy and timid students will participate more fully

### d. Daydreamers

- 1) Indicated when a student gazes around the room, doodles, or thumbs through reading materials
- 2) Displays little energy or enthusiasm
- 3) Low learning or accomplishment rate
- 4) Can result from above average ability, boredom with instructor, uninteresting subject matter, or improper pacing of content

- 5) Also results from lack of background, not understanding instructional terms, improper preparation, illness, nervousness, or being worried about other matters
- 6) Person can be converted
- 7) Instructor should determine if health is OK
- 8) Ask simple personal questions if needed
- 9) Remind the student they have a responsibility to learn
- 10) Can shift or modify the instruction to make it more interesting, if not to the detriment of other students
- 11) Ask direct questions to encourage participation and attention
- 12) Engage in discussions or activities

2. Disruptive students

- a. Fire service instructors cannot tolerate inattention or trouble-making of any kind
- b. Disruptive students take away from all other student's learning ability
- c. Managing troublemakers or "wise guys"
  - 1) Discuss with the person their behaviors and the seriousness of their actions
  - 2) Explain that staying in the class will require a change in their behavior
  - 3) Consider expelling if behavior does not change
- d. Managing sidetrackers and stallers
  - 1) These are people who divert attention and interest from the instructor or instructional materials or attempt to monopolize the conversation
  - 2) Often results from the person not being prepared for class or feeling the need to be recognized
  - 3) Call on the person often, but limit their time
  - 4) Discuss their behavior in private and ask them to be watchful, do so before class when possible
  - 5) Keep the lesson on track
  - 6) Give the offender an extra assignment
  - 7) Let the class know that special problems will be discussed after class
- e. General strategies for discipline-The LEAST Method

## Instructor Notes

- 1) Leave it alone, if first occurrence because it may be isolated
- 2) Eye contact to show dissatisfaction on second occurrence
- 3) Action is required if disruptive behaviors continue, such as discussing the importance of attention and learning
- 4) Stop the class and have a personal discussion with the student if the behavior is continuing, explaining the results of continuing the behavior
- 5) Terminate the individual's rights to participate in the class



## **REVIEW**

- I. Discuss key lesson points.
- II. Ask questions on the material covered.
- III. Review material that may be unclear.
- IV. Administer test or quiz.
- V. Critique test or quiz.

## **SUMMARY**

- I. Summarize what has been covered.
- II. Relate what has been covered to the next lesson.

# **DOD FIRE SERVICE CERTIFICATION SYSTEM**

## **LESSON PLAN 4**

**Personnel Classification:** Fire Instructor I

**Subject:** Instructional Planning

### **NFPA 1041 Objectives**

2-2.1

2-2.2

2-5

### **Training Materials/Equipment:**

Classroom, chalkboard or equivalent

### **References:**

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

NFPA 1041: Fire Service Instructor Professional Qualifications, 1992 National Fire Protection Association, Quincy, Massachusetts.

**Additional Information:**

**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
- ¥ Review references for lesson.
- ¥ Use additional references and your knowledge to enrich lesson outline.
- ¥ Select and prepare any additional audio-visual aids that may assist in the presentation of the lesson.
- ¥ Ensure that all equipment needed, including any audio-visual equipment, is available.
- ¥ Review lesson at end of session to ensure student understanding.
- ¥ Ensure that the objectives of the lesson have been adequately covered.

**INTRODUCTION AND OBJECTIVES**

- I. Greet class
- II. State purpose of the lesson
- III. Establish relation to previous and following lessons
- IV. Review NFPA 1041 objectives for this lesson
- V. Review additional objectives for this lesson

**PRESENTATION**

**LESSON OUTLINE**

2-2.1 Establishing conducive learning and teaching environments

A. The learning environment

1. Purpose of creating a good environment

- a. Defined by the available facilities and equipment
- b. Reduces fatigue if correctly established
- c. Increases student attention span
- d. Promotes learning retention

2. Indoor facilities

a. Lighting

- 1) Should be adequate for taking notes
- 2) Should not wash out visual aids
- 3) Can be adjusted during the session

b. Distractions

- 1) Don't clutter the room with unnecessary equipment
- 2) Organize training aids to easily find and manage
- 3) Ensure all students can see and hear
- 4) If room arrangements limit students, encourage them to move or use handouts
- 5) Do not stand between the students and visual aids
- 6) Noise control should be maintained, closing doors and windows helps students concentrate

c. Temperature settings should be comfortable to cool

d. Seating

- 1) The audience should never be seated closer than twice the width of the screen for farther away than six times the screen's width
- 2) Before class, preview by sitting in various positions
- 3) Ensure that the seating arrangement supports the activities

**B. Definition and purpose of training aids**

1. Training aids are the materials, equipment, and devices which support learning
2. Aids support and clarify instruction, not to be used as a substitute
3. Make use of senses other than hearing
4. Brings about reality and understanding
5. Reduces instructional time requirements

**C. General guidelines for audiovisual aid use**

1. Selection is based on the behavioral objectives and content
2. Must be accurate and realistic
3. Select aids which are easy to manage
4. Must be simple, legible, and readable to all students
5. Should be cost effective
6. Organize before class and test all equipment
7. Extension cords are often necessary, and overlooked during preparations
8. Arrive to the classroom early to set up the tables and seats so that everyone can see and to facilitate the planned instruction- valuable class time is lost if tables and chairs have to be rearranged

**D. Specific guidelines for the use of selected audiovisual tools**

1. Slides
  - a. 35mm picture projected onto a screen
  - b. Provide good flexibility
    - 1) Instructor controlled, thus allowing for as long a discussion as warranted
    - 2) Can pace according to student needs
    - 3) Can modify easily when session times need to be adjusted
  - c. General rule: only show for 30 seconds, use handouts if

## Instructor Notes

- d. Keep text to a minimum
- e. Ensure up to date material and switch out of date slides
- f. Slide projectors

- 1) Instructors should be familiar with the projectors lamp mount, fan control, power switch, focus knob, and storage compartments
- 2) Use slide trays which store and feed slides on demand
- 3) Some are automatic, all can be instructor controlled with a wired or remote control
- 4) Check for operational readiness before class, and make sure a spare lamp is available or in the storage compartment

- g. Manage keystoneing, a distortion of the projected image when the screen is not square with the projector

- 1) Keystoneing results in out of focus text and distorted graphics
- 2) Tilt the top of the screen towards the projector to correct vertical keystoneing
- 3) Move the projector left or right to correct horizontal keystoneing
- 4) Most tripod screens, and some wall screen, have an keystone eliminator adjustment mechanism which tilts the screen as needed

## 2. Video

- a. Two main types

- 1) Video tape
- 2) Motion pictures

- b. When to use

- 1) When the training is standard or to standardize content
- 2) To dramatize class content
- 3) To demonstrate both correct and incorrect behaviors
- 4) To enhance understanding
- 5) To magnify small items so all students can see
- 6) As a safe way to show hazards, dangerous conditions, or the effects of improper behavior
- 7) As an aid to understanding training ground activities
- 8) When the training is complex or difficult to understand

## Instructor Notes

- 9) To reach a large, geographically disperse population if transmitted via closed-circuit
  - 10) For student review
- c. When not to use
- 1) Film content is not accurate or authentic
  - 2) Does not contribute to the lesson
  - 3) Material is outdated
  - 4) Content does not fit the students current level of understanding
  - 5) The time required to show the film does not match its value to improving understanding
- d. The instructor should always preview the film before class
- e. Introduce the film and explain its purpose in the course
- f. Explain key terms which are used in the film
- g. Put questions on the board or in a handout which the film will answer
- h. Assign certain students questions to answer
- i. Stop the film and discuss key points or address unique questions
- j. Equipment needed
- 1) Tape player or film projector
  - 2) Projection screen or video monitors (TVs)
- k. Ensure operational readiness of equipment before class and be familiar with the equipment
3. Overhead transparencies
- a. Used in conjunction with an overhead projector
  - b. Made of plastic, acetate, or cellophane sheets measuring 252 mm by 250 mm (10 x 10 inches)
  - c. Additional sheets can be overlaid to provide step-by-step instruction for processes and complex ideas
  - d. When to use
- 1) For process instruction
  - 2) To support lecture
  - 3) To bridge complex ideas
  - 4) For naming equipment or tool parts
  - 5) To project handwritten instructor notes on blanks
- e. When not to use

## Instructor Notes

- 1) When the facilities lighting washes out the image
- 2) When content is not up-to-date
- 3) If the text size or colors make the image unreadable
- 4) If the content can be better presented on charts, slides, or film

f. The instructor should be familiar with the lamp, on/off switch, fan, focus knob, mirror, glass, and keystone correction techniques

g. General overhead projector operations

- 1) Lay transparency on glass surface with the bottom of the transparency towards the screen
- 2) Turn the fan and lamp on. The lamp will burn out due to overheating if the fan is not running
- 3) Adjust to fit the screen, moving the mirror if necessary-which also helps correct keystone
- 4) Focus the image
- 5) After presenting the content, turn the lamp off and then the fan after the unit cools-check by placing your hand near the vent (some projectors automatically turn off the fan after the lamp cools)

E. Other teaching aids

1. Chalk and whiteboards

- a. Chalkboards use colored chalk, hard surface whiteboards use felt tip markers
- b. Permanent markers will not come off either of these surfaces
- c. Whiteboards allow for the use of many colors and reduce chalk dust, but are harder to clean and may require special markers and cleaning tools
- d. When to use

- 1) Supports student note taking of key instructional points
- 2) Can be used to stress critical subject matter
- 3) To demonstrate problem solving, such as math equations

e. Advantages

- 1) Readily available
- 2) Keeps student attention
- 3) Highlights key points
- 4)



## Instructor Notes

5) Requires no special skills or equipment

f. Disadvantages

1) No permanent record

2) Not portable

3) Must condense ideas

4) Sometimes requires quick thinking

g. Effective use

1) Keep the board clean

2) Place complex drawings or text before class

3) Do not stand in front of written material when lecturing

4) Use rulers, T-squares and compasses when accuracy is important

5) Use to present new terms, key points, rules, and important ideas

2. Flipcharts

- a. Bound paper on a stand
- b. Generally used to help illustrate lecture content or to keep list
- c. Effectiveness based on instructors ability to integrate the visual with the lecture
- d. When to use
  - 1) To explain key points
  - 2) To list ideas
  - 3) For diagrams
  - 4) To quickly record student input
- e. Advantages
  - 1) Same as chalkboard
  - 2) Provides a permanent record
  - 3) Can be reused
  - 4) Advance preparation possible
- f. Disadvantages
  - 1) Size of paper may be hard for students to see
  - 2) Is less flexible than the chalkboard
  - 3) Can be difficult to transport
  - 4) Preparation and changes often take time, and cost more
- g. Effective use
  - 1) Legibility is critical, use plain lettering and simple diagrams
  - 2) Flipchart paper size must be appropriate for the audience
  - 3) Don't crowd text and lettering
  - 4) Use colors which provide high contrast to the paper
  - 5) Letters with a width-to-height ratio of three to five are best
  - 6) Don't put too much on one page
  - 7) Keep the pages sequenced according to planned use

3. Illustrations

- a. Includes pictures, charts, diagrams, etc.
- b. [Redacted]

## Instructor Notes

- c. Especially useful when operating in a small areas
- d. Can be created as large or small as necessary

e. Advantages

- 1) Ideal for study displays
- 2) Needed materials are readily available
- 3) Can be enlarged to show detail
- 4) Can be used in a lighted room

f. Disadvantages

- 1) Difficult to transport and store
- 2) Originals cannot be easily altered

4. Bulletin Boards

- a. Commonly used to display pertinent session or class information
- b. Information can be tailored to class needs
- c. Easy to update
- d. Instructor can arrange information at will

5. Handouts

- a. Arrange in the order they will be used
- b. Cover so that they do not become a distraction
- c. Make sure they are readable
- d. Ensure correct citing of references
- e. Advantages
  - 1) Reduces wasted learner time from devoted note taking
  - 2) Ensures lecture information is available for study and follow-up
  - 3) Students can give full attention to instructor
  - 4) Easy to produce
  - 5) No group size limits

f. Disadvantages

- 1) Material may not be read
- 2) Class is disrupted during distribution
- 3) Preparation requires time and research
- 4) Printing cost

6. Models

- a. Characteristics of the model

- b. Allows for examination and operation
- c. Three types of models
  - 1) Cutaway or sectional
  - 2) Working
  - 3) Transparent
- d. Lessons should be planned around models
- e. Ensure everyone can see or operate
- f. Provide instruction, then allow for examination
- g. Do not pass a model around the class, it distracts from lecture
- h. Make sure the model can be moved if necessary or plan around the placement

7. Simulators

- a. Useful to create situations for students to practice applying new knowledge
- b. Allows for learning about hazardous situations without risk to life
- c. Good for running scenarios and processes
- d. Are often used in conjunction with pre-fire planning, tactics exercises and post-fire analysis
- e. Lesson must be designed around the simulator activities
- f. Not very useful for introductory training
- g. Requires debriefing

2-2.2 Using outdoor facilities and drill grounds

- A. Includes drill towers, station yards, parking lots, in the streets, and target hazards
- B. Maintaining a conducive learning environment outside is not easy
  - 1. The instructor has limited control over many outdoor distractions
  - 2. Careful attention to planning, organizing, and managing is required
  - 3. Instructor must properly prepare and motivate the students in order for distractions to be minimized
  - 4. Inclement weather cannot always be predicted, and can only be managed through contingency planning
    - a. Frequent breaks can help manage time
    - b. Contingency activities should be developed prior to class
    - c. Provide for reasonable student comfort if weather must

## Instructor Notes

be endured

C. As the size of the group increases, the ability for students to see and hear decreases

1. Manage through the use of small groupings of students when possible, or multiple instructors attached to small groups
2. Plan the placement of visual aids
3. Use platforms for demonstrations or displays
4. Move the students when necessary
5. Use portable public address systems when needed
6. Create large visual aids if necessary
7. Always check with the student to determine visual or sound problems

## **REVIEW**

- I. Discuss key lesson points.
- II. Ask questions on the material covered.
- III. Review material that may be unclear.
- IV. Administer test or quiz.
- V. Critique test or quiz.

## **SUMMARY**

- I. Summarize what has been covered.
- II. Relate what has been covered to the next lesson.

## **DOD FIRE SERVICE CERTIFICATION SYSTEM**

### **LESSON PLAN 5**

**Personnel Classification:** Fire Instructor I

**Subject:** Lesson Plans

#### **NFPA 1041 Objectives**

2-3

#### **Training Materials/Equipment:**

Classroom, chalkboard or equivalent

#### **References:**

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

NFPA 1041: Fire Service Instructor Professional Qualifications, 1992 National Fire Protection Association, Quincy, Massachusetts.

#### **Additional Information:**





**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
- ¥ Review references for lesson.
- ¥ Use additional references and your knowledge to enrich lesson outline.
- ¥ Select and prepare any additional audio-visual aids that may assist in the presentation of the lesson.
- ¥ Ensure that all equipment needed, including any audio-visual equipment, is available.
- ¥ Review lesson at end of session to ensure student understanding.
- ¥ Ensure that the objectives of the lesson have been adequately covered.

## INTRODUCTION AND OBJECTIVES

- I. Greet class
- II. State purpose of the lesson
- III. Establish relation to previous and following lessons
- IV. Review NFPA 1041 objectives for this lesson
- V. Review additional objectives for this lesson

## PRESENTATION

### LESSON OUTLINE

#### 2-4 Using lesson plans

##### A. Purpose

1. A step-by-step guide the instructor
2. Ensure all critical content is covered and emphasis is correctly placed
3. Provide sequence
4. Serves as an outline for material and procedures
5. Helps to make efficient use of time
6. Contributes to uniformity

##### B. Components of a well designed lesson plan

1. Topic: Brief statement of the lesson goal or description of the material to be covered
2. Level: Based on the job requirements being addressed
3. Time: Estimated time frame for the lesson
4. Behavioral objectives or performance objectives: Behaviors which the student will (must) be able to complete or demonstrate at the end of the session
5. Instructional materials: Listing of A/V equipment, handouts, audiovisuals, and other items needed to present the lesson
  - a. Must include correct number of materials given the class size
  - b. May include items which must be developed before class
6. References: Specific references for the instructor to study in preparation for the class, should include all resource materials and page numbers
7. An outline

## Instructor Notes

- a. Beginning with preparation
  - 1) Designed to engage or motivate the student
  - 2) Explains how the instructor can establish relevance to the students job
  - 3) Introduces the topic and performance objectives
- b. The presentation outline
  - 1) Lists the order of information
  - 2) Describes how it will be covered
  - 3) Summarizes what the instructor must do to teach the lesson
- c. Application
  - 1) Does not have to follow the presentation outline
  - 2) Instructor supplies exercises, activities, and jobs for the students to apply
- d. Lesson summary
  - 1) Restatement of critical information presented
  - 2) Serves to clarify, prevent misconceptions, and increase learning retention
- e. Evaluation
  - 1) Administration of test to assess learning and proficiency
  - 2) Determines if behavioral or performance objectives were achieved
- f. Assignments: Activities to be completed by students away from the class
  - 1) Used to re-enforce learning
  - 2) Can be used to prepare for the next lesson
  - 3) Not always needed or appropriate



## **REVIEW**

- I. Discuss key lesson points.
- II. Ask questions on the material covered.
- III. Review material that may be unclear.
- IV. Administer test or quiz.
- V. Critique test or quiz.

## **SUMMARY**

- I. Summarize what has been covered.
- II. Relate what has been covered to the next lesson.

## **DOD FIRE SERVICE CERTIFICATION SYSTEM**

### **LESSON PLAN 6**

**Personnel Classification:** Fire Instructor I

**Subject:** Instructional Methodology

#### **NFPA 1041 Objectives**

2-4.1

2-4.2

2-4.3

#### **Training Materials/Equipment:**

Classroom, chalkboard or equivalent

#### **References:**

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

NFPA 1041: Fire Service Instructor Professional Qualifications, 1992 National Fire Protection Association, Quincy, Massachusetts.

**Additional Information:**

**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
- ¥ Review references for lesson.
- ¥ Use additional references and your knowledge to enrich lesson outline.
- ¥ Select and prepare any additional audio-visual aids that may assist in the presentation of the lesson.
- ¥ Ensure that all equipment needed, including any audio-visual equipment, is available.
- ¥ Review lesson at end of session to ensure student understanding.
- ¥ Ensure that the objectives of the lesson have been adequately covered.

**INTRODUCTION AND OBJECTIVES**

- I. Greet class
- II. State purpose of the lesson
- III. Establish relation to previous and following lessons
- IV. Review NFPA 1041 objectives for this lesson
- V. Review additional objectives for this lesson

**PRESENTATION**

**LESSON OUTLINE**

2-4.1 Instructional methods

- A. Instructional methods are the different ways that lessons are presented
- B. There are six main methods
- C. The various methods each have a different impact on learning
- D. The instructor should choose the method based on:
  - 1. The instructional objective and learning domain
  - 2. Required level of student participation
  - 3. Current level of student knowledge, skill, and ability
- E. Discuss the six methods
  - 1. Lecture
    - a. Information verbally presented by the instructor
    - b. Assumes students can progress at the same rate
    - c. Most useful when students are new or have little subject matter knowledge
    - d. Little to no student interaction
    - e. Instructors are in the telling, not teaching, mode
    - f. The lecture method is often overused
    - g. Most common mistake is not preparing or organizing due to subject matter knowledge
    - h. How to use
      - 1) Prepare
      - 2) Use visual aids
      - 3) Allow for student feedback



- 4) Make sure voice, posture, and clothing don't distract
- 5) Use normal speaking style
- 6) Make sure everyone can hear the lecture
- 7) Pause to allow note taking and comprehension
- 8) Summarize lectures

**2. Discussion**

- a. Instructor facilitates the students discussion about a subject
- b. Facilitation should be towards a specific goal or learning objective
- c. Challenges the students to think
- d. Most useful when the students have enough knowledge or skills to contribute
- e. How to use

- 1) Introduce a question or topic
- 2) Ask for explanations, definitions, issues, or comments
- 3) Allow the student to discuss
- 4) Use the flipcharts or overhead projector to record important points
- 5) Correct inaccuracies or misconceptions as the discussion progresses
- 6) Keep the students focused on the lesson objective
- 7) Summarize the discussion

**3. Demonstration**

- a. The instructor shows how something is done
- b. Watching is the primary learning method
- c. Most useful for introducing new skills
- d. Supports learning manipulative skills, physical principles, and working mechanical devices
- e. Best to use step-by-step instructional processes
- f. Preparing the demonstration

- 1) Planning is required
- 2) Must know exactly what should be demonstrated and where
- 3) Don't allow the demonstration materials to distract from the class before the demonstration begins
- 4) Any equipment or tools should be readied and

## Instructor Notes

- 5) Set boundary lines to help ensure all students can see and hear, or make sure the location of the demonstration allows the entire class to observe and hear
- 6) Practice beforehand to insure smooth, safe, and competent demonstrations

g. Important guidelines for the instructor

- 1) Complete the demonstration slowly and with mastery
- 2) Emphasize key points during the demonstration
- 3) Safety must be stressed before and during the demonstration
- 4) Encourage questions from the students, and ask questions for all students to answer
- 5) Don't demonstrate multiple methods during the same session, allow the students to grasp one method

h. How to use

- 1) Introduce the lesson, cover theory and background
- 2) Go through the process at normal speed, without discussion
- 3) Repeat the process, explaining each step and emphasizing key points
- 4) Repeat while a student explains each step
- 5) Have another student perform the task
- 6) Allow students to practice under supervision

4. Illustration

- a. The use of drawings, pictures, slides, transparencies, models, mock-ups, or other visual aids
- b. Useful as an aid, and not a replacement for other instructional methods
- c. Can not take the place of a demonstration
- d. Must be clearly visible to all students
- e. Good for showing sequence, steps, or design

f. How to use

- 1) Keep out of sight until needed, unless using to create interest
- 2) Focus on one illustration at a time for lecture or discussion
- 3) Put away discussed illustrations

5. Conference

- a. One method of discussion
- b. Useful for problem solving
- c. Must have a clearly stated goal or end result
- d. Don't forget to ask the student to explain the process

## Instructor Notes

- e. Cannot be overly influenced by one person, including the instructor
- f. Success rest with the instructor(s)
- g. Planning is important
- h. How to use

- 1) Discuss the background, scope, and limits of the conference
- 2) Introduce and define the problem
- 3) Explain discussion rules
- 4) Turn over the discussion to the class in either small groups or as one group
- 5) Do not interfere with the discussion except to restate the problem, ask questions, state cases, or to jump-start continued discussion
- 6) Summarize key points

### 6. Individualized

- a. A process for matching instructional style, preferred learning style, and learning objective
- b. Includes independent study, reading assignments, tutorial instruction, programmed learning, computer based learning, and activity packets
- c. Recently, becoming more popular because all six principles of instruction are used
- d. Used in combination with other instructional methods, not as a replacement for the instructor
- e. Is student-centered
- f. Instructor acts as a learning resource manager, not as the primary learning resource
- g. How to use

- 1) Agree on or prescribe the learning objective
- 2) Agree on or prescribe the instructional methods or techniques
- 3) Set agenda and determine flexibility based on requirements
- 4) Periodically assess progress and provide feedback
- 5) Provide new learning objectives once mastery is demonstrated

### 2-4.2 The four step method of instruction

- A. Overview the four steps: Preparation, Presentation, Application,

## Instructor Notes

- B. Tie back to instructional method
- C. The four steps are conceptual in nature, and not designed to be rigid
- D. Provides a useful guideline for Instructor II to create lesson plans
- E. Each step has its own purpose and methods to accomplish
- F. The steps can be blended as needed
- G. Experienced instructors will focus on the students needs and promote behavioral change by choosing the step which best meets those needs
- H. Discuss preparation

- 1. Step One

- 2. Purpose

- a. To prepare students for learning and create a foundation
- b. The motivation step
- c. To link the lesson to the student's prior experience or knowledge

- 3. How to use

- a. Ask questions
- b. Cite examples
- c. Relate prior experiences
- d. Cite benefits
- e. Review previous lessons
- f. Provide diagnostic quiz

- I. Discuss presentation

- 1. Step Two

- 2. Purpose

- a. Present new skills, concepts, and procedures
- b. Provide instruction

- 3. How to use

- a. Give demonstrations
- b. Use visual aids
- c. Explain Procedures
- d. Emphasize key points
- e. Explain principles and implications regarding concepts or issues
- f. ~~Give feedback and reinforcement~~

## Instructor Notes

g. Use text and references

J. Discuss Application

1. Step Three-critical to performance

2. Purpose

a. Allow student to practice new skills or apply new knowledge, under supervision

b. Involve students

3. How to use
  - a. Have students perform task
  - b. Supervise closely
  - c. Correct performance
  - d. Facilitate good habits
  - e. Check key and safety points
  - f. Promote discussions
  - g. Give quizzes
  - h. Assign projects
  - i. Require note-taking
  - j. Assign problems

K. Discuss Evaluation

1. Purpose
  - a. Evaluate learning
  - b. Evaluate teaching
  - c. Determine if overall lesson objectives have been met
2. How to use
  - a. Performance test
  - b. Ask prepared questions
  - c. Have student demonstrate and explain a task or job
  - d. Have student observe others performance and provide an critical evaluation
  - e. Evaluate notebooks, projects, assignments, papers, etc.

L. Questioning techniques

1. An important skill for instructors
2. Used to create interest and participation
3. Most effective cannot be answered with Yes or No
4. Four general types
  - a. Direct questions
    - 1) Asked of one person
    - 2) Allow a student to express themselves
  - b. Overhead questions
    - 1) Ask a question of the whole class

## Instructor Notes

2) Promotes critical thinking, allows for different opinions to surface, and begins discussion

3) Anyone can answer

c. Rhetorical questions

1) Asked to the entire class

2) Not intended to solicit a response

3) Promotes thinking

d. Relay questions

1) When a question is asked, referred to another student to answer by the instructor

2) Results in variable information being presented

### 2-4.3 Managing interruptions

A. Interruptions can occur anywhere, anytime

B. Frequently include emergency calls, malfunctioning equipment, failure of speakers to appear, weather, and temporary student absences

C. Should be planned for with alternatives before the lesson begins

D. Drill ground activity alternatives

1. Move to classroom and practice inside if possible, or change instructional method

2. Take a break

3. Shift lessons around

4. Shift activities around

5. Reschedule

E. Classroom interruptions

1. Take a break

2. Reschedule

3. Shift lessons around

4. Establish study assignment to cover materials

## REVIEW

I. Discuss key lesson points.

II. Ask questions on the material covered.

III. Review material that may be unclear.

IV. Administer test or quiz.



- V. Critique test or quiz.

**SUMMARY**

- I. Summarize what has been covered.
- II. Relate what has been covered to the next lesson.

**DOD FIRE SERVICE CERTIFICATION SYSTEM**

**LESSON PLAN 7**

**Personnel Classification:** Fire Instructor I

**Subject:** Evaluation, Testing, and Reporting

**NFPA 1041 Objectives**

- 2-6.1
- 2-6.2
- 2-6.4
- 2-6.3
- 2-7

**Training Materials/Equipment:**

Classroom, chalkboard or equivalent

**References:**

IFSTA, Fire Service Instructor, 5th Edition, 1990, Fire Protection Publications, Oklahoma State University.

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NFPA 1402: Guide to Building Fire Service Training Centers, 1985 National Fire Protection Association, Quincy, Massachusetts.

NFPA 1403: Standard on Live Fire Training Evolutions in Structures, 1986 National Fire Protection Association, Quincy, Massachusetts.

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## Instructor Notes

**Additional Information:**

**Written**

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FFP, Skull Sessions, 3rd Edition, 1996, Fire Protection Publications, Oklahoma State University.

NFPA 1500: Fire Department Safety and Health Programs, 1992 National Fire Protection Association, Quincy, Massachusetts.

NFPA 1410: Training Standard on Initial Fire Attack, 1988 National Fire Protection Association, Quincy, Massachusetts.

**Instructor Tasks:**

- ¥ Review lesson outline to ensure understanding of contents and procedures.
- ¥ Review references for lesson.
- ¥ Use additional references and your knowledge to enrich lesson outline.
- ¥ Select and prepare any additional audio-visual aids that may assist in the presentation of the lesson.
- ¥ Ensure that all equipment needed, including any audio-visual equipment, is available.
- ¥ Review lesson at end of session to ensure student understanding.
- ¥ Ensure that the objectives of the lesson have been adequately covered.

**INTRODUCTION AND OBJECTIVES**

- I. Greet class
- II. State purpose of the lesson
- III. Establish relation to previous and following lessons
- IV. Review NFPA 1041 objectives for this lesson
- V. Review additional objectives for this lesson

**PRESENTATION**

**LESSON OUTLINE**

2-6.1 and 2-6.4

Overview of evaluation and testing

- A. An important part of the instructional process
- B. Main reason is to improve the teaching/learning process
- C. Purpose
  - 1. Determine learning and proficiency
  - 2. Assess instructional style and methods
  - 3. Determine lesson plan changes
  - 4. Evaluate effectiveness of training
  - 5. Stimulate student's attention and learning
  - 6. To make administrative decisions
- D. Evaluations cover the gamut of assessments, testing is student focused and a part of the total evaluation process
- E. Types of test
  - 1. Written
    - a. Measure retention and understanding, or current knowledge
    - b. Can be used to measure learning for cognitive and affective domains
  - 2. Oral
    - a. Usually given one-on-one with the instructor
    - b. Often given along with performance test
    - c. Measures understanding, usually with regard to sequence, safety, or process

## Instructor Notes

- d. Are subjective in nature, and objective criteria should serve to guide the instructor's grading of responses

3. Performance
    - a. Measure proficiency
    - b. Are used for psychomotor learning assessments
    - c. Usually tied to a speed or quality standard
    - d. Most direct means of determining if one can do the job
    - e. Frequent in the fire service
- F. Administration of test
1. Discuss general guidelines
    - a. Administration begins before the test is given
      - 1) Students should be told of the test and its purpose
      - 2) Information should be provided about how to prepare and what to bring
    - b. Setting good test conditions
      - 1) The room set-up, temperature, and lighting should not distract
      - 2) Try to ensure distracting noises are kept to a minimum
      - 3) Reduce stress by being pleasant and supportive
      - 4) If its a performance test, all equipment and tools should be checked before the test and after each use
    - c. Instructions
      - 1) Be brief and to the point
      - 2) Read all instructions clearly and verify understanding
      - 3) Explain how answers are to be recorded
      - 4) For performance test, explain evaluation process and critical elements
      - 5) Discuss time limits
      - 6) Let students know if they should guess
    - d. Security
      - 1) Be careful with duplication and storage
      - 2) Assign different seating arrangements if needed
      - 3) Number test booklets to determine if all were returned
      - 4) Maintain a fair, yet strict, test taking environment
  2. Specific guidelines

## Instructor Notes

### a. Oral

- 1) Overview the test focus
- 2) Explain how and when the student should respond
- 3) Ask questions in a clear and concise manner
- 4) Verify understanding of the question
- 5) Allow the student to respond
- 6) Listen carefully, without distractions
- 7) Remember individuals phrase things differently

### b. Written

- 1) Briefly explain the instructions
- 2) Keep the room quite and comfortable
- 3) Minimize all distractions until each student has completed the test
- 4) Make sure all test are turned in at the end
- 5) Do not provide test question answers if explaining a question

### c. Performance

- 1) Explain the test procedure
- 2) Allow the student to perform
- 3) Use safety office in outdoor evolutions
- 4) Can be complemented with student explanations, if needed
- 5) Use a performance checklist

## G. Reducing student failure potential

### 1. Promote self-performance assessments during lesson activities

- a. Encourages critical evaluation
- b. Increases learning through self-evaluation
- c. Provides continuous feedback without instructor interaction
- d. Helps the student define parameters of understanding

### 2. Tutoring

- a. One-on-one student-student or student-instructor teaching
- b. May include assignments, self-study, and facilitated discussion



- c. Should be used to help students overcome deficiencies, not as a general learning method
- d. Need may be identified through observation of group activities, poor quiz scores, inability to answer questions, etc.
- e. Should not take the place of classroom activity

3. Individual instruction

- a. One-on-one student-student or student-instructor teaching
- b. Means for skill development
- c. Focuses mainly on guided practice
- d. Promotes confidence development

4. How to improve student performance during test

- a. Provide clear instructions
- b. Build confidence in the student's abilities to pass
- c. Don't hurry students who are testing
- d. Don't use test to threaten students
- e. Don't spend too much time giving instructions

H. Grading test

1. Oral

- a. Subjective in nature
- b. Use pre-planned criteria, as objective as possible
- c. Apply the pre-planned criteria to the evaluation
- d. Allow for additional responses if you are unclear as to their understanding

2. Written

a. Objective test

- 1) Includes True-False, multiple answer, and matching
- 2) Use a simple answer sheet to grade
- 3) Can make a transparent overlay to score

b. Subjective

- 1) Short-answer or essay format
- 2) Must read and interpret responses
- 3) Should use a answer guideline or pre-planned criteria for grading

## Instructor Notes

- 4) Good to based score on more than one persons assessment

### 3. Performance Test

- a. Can make objective through use of performance checklist
- b. Use performance ckecklist items to determine pass/fail
- c. Assign ÒCÓ to critical items which must be accomplished to pass

### 2-6.3 Evaluations as an assessment tool for revising lesson plans and materials

#### A. Two types of evaluations

##### 1. Formative

- a. During course evaluation, also used during development
- b. An on-going assessment
- c. Used to make adjustments to content, methods, aids and testing techniques

## Instructor Notes

2. Summative
  - a. One time, end of course evaluations
  - b. Assesses what learning occurred
  - c. Used to make modifications to the course design
- B. Instructor's focus should be on formative evaluation of student performance
- C. The instructor's judgment is critical to improving the lesson delivery, thus student performance
- D. Several student performance issues provide guidance
  1. Student interest in the subject
    - a. Low interest can indicate
      - 1) Improper content or delivery during the preparation step
      - 2) Poor instructional style
      - 3) Need for discussion or activity (too much lecturing)
      - 4) Too slow delivery of content
      - 5) Boring topic
      - 6) Need for or improvement of visual aids or usage
      - 7) Need for adjustment to speech patterns
      - 8) Need for break
    - b. High interest indicates good preparation, delivery, and design
  2. Level of participation
    - a. Limited participation by many students can indicate
      - 1) Improper preparation
      - 2) Fear
      - 3) Fatigue
      - 4) Confusion or lack of understanding
      - 5) Too fast delivery of content or material
      - 6) Too many visual aids
      - 7) Too much lecturing
      - 8) Poor instructor attitude
      - 9) Need for break or to end day
    - b. High levels of participation indicate good preparation, proper instructional methodology, and appropriate pacing of materials

3. Reactions to exercises and activities
  - a. Negative reactions can indicate
    - 1) Confusion
    - 2) Misunderstanding directions
    - 3) Improper cognitive preparation
    - 4) Need for more visual aids
    - 5) Poorly designed activities
    - 6) Need for higher degree of instructor facilitation
    - 7) Improper activities for the given content
    - 8) Too much stress given the level of preparation
  - b. Positive reactions to activities and exercises indicates good design and facilitation
4. Level of student questions
  - a. Low levels of student questioning can indicate
    - 1) Low interest (refer back to "low interest")
    - 2) The instructor is speaking too fast
    - 3) Fear
    - 4) Lack of trust between students and instructor
    - 5) Too many war stories
    - 6) Lack of content understanding
  - b. Frequent questions can indicate
    - 1) Interest
    - 2) Comfort with the instructor and peers
    - 3) Appropriate delivery pacing
    - 4) Potential to get off track
    - 5) Need for more visual aids
    - 6) Lack of mental preparation
    - 7) Confusion
5. Level of student frustration
  - a. High frustration can indicate
    - 1) Too fast delivery of content
    - 2) Poor instructor explanations
    - 3) Improper instructional methodology

## Instructor Notes

- 4) Poor preparation
  - 5) Poor instructions for activities or performance test
  - 6) An improperly prepared instructor
  - 7) Instructors with a lack of experience
  - 8) Improper bridging of content to other lessons or student experiences
  - 9) Fatigue
- b. Some frustration is expected as students attempt to understand new concepts and practice new skills

6. The students sense of achievement
  - a. Low sense of achievement can indicate
    - 1) Poor preparation
    - 2) Lack of appropriate practice time
    - 3) Need for more activities
    - 4) Poor instructional style
    - 5) Limited use of motivational techniques
    - 6) Testing at too high a level
  - b. High sense of achievement indicates good use of motivational techniques, proper preparation and practice, and good lesson design
7. Results from quizzes
  - a. Poor scores overall can indicate
    - 1) Lack of student motivation
    - 2) Too many disruptions
    - 3) Too fast delivery of content
    - 4) Lack of instructional emphasis on key points
    - 5) Poorly designed or constructed test
    - 6) Need for more handout materials or a study guide
    - 7) Potential need to provide self-study assignments
    - 8) Improper timing for quiz delivery
  - b. Generally good scores indicate appropriate design and delivery
  - c. High scores may indicate too easy questions or improper grading of subjective questions by the instructor
- E. Lessons should be constantly evaluated and adjusted when necessary
- F. Any adjustments must support the defined learning objective

2-7 Records and reports

- A. Two main types of records
  1. Administrative records
    - a. Used to record attendance
    - b. Provide a track record of training and performance improvement efforts

## Instructor Notes

- c. Give assistance during promotional evaluations
  - d. Important for legal concerns
2. Performance reports
- a. Includes progress and achievement reports
    - 1) Test and quiz scores
    - 2) Performance evaluations
    - 3) Assignment scores
  - b. Useful for several different reasons
    - 1) As a formative course assessment tool for the instructor
    - 2) To help students improve their own performance
    - 3) As a motivational tool
    - 4) To track student progress to determine individual instruction needs
    - 5) To aid course developers improve training programs
    - 6) To provide administration with a training value assessment
    - 7) As documentation of training effectiveness for legal reasons
    - 8) To identify skills and competencies for officers and safety officers
    - 9) To identify high-performance individuals for mentoring assignments or for promotional development
- B. All records and reports must follow departmental guidelines and be completed completely and accurately
- C. All records and reports can become a legal document

## **REVIEW**

- I. Discuss key lesson points.
- II. Ask questions on the material covered.
- III. Review material that may be unclear.
- IV. Administer test or quiz.
- V. Critique test or quiz.

## **SUMMARY**

- I. Summarize what has been covered.
  - II. Relate what has been covered to the next lesson.
- c