Date: July 14, 2017

To: Ronny J. Coleman, Chairman
c/o State Fire Training
1131 S. Street,
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From: Jim Eastman, Fire Service Training Specialist, State Fire Training

Subject/Agenda Action Item: 2017 FSTEP Instructor Curriculum

Recommended Actions: Approve the following Curriculum:
- Techniques of Evaluation (2017)
- Group Dynamics and Problem Solving (2017)
- Employing Audiovisual Aids (2017)

Background Information:

This curriculum was presented at the April 2017 STEAC Meeting. This is the second reading, as of this date we have not received any feedback or input on the new curriculum.

The Fire Instructor Level II certification was established September 1, 1984 and the certification guidelines were revised January 1, 1988.

The Fire Instructor II certification track required that a person complete the course of study which consisted of three courses:

2. Fire Instructor 2B: Group Discussion Techniques - revision 1990
3. Fire Instructor 2C: Employing Audiovisual Aids - revision 1989

Fire Instructor II. In addition to the completion of these three courses the person must have completed Level I courses as prerequisites. Fire Instructor II certification was only available to those certified as Fire Instructor I. Experience requirement - the person must have a minimum two (2) years full-time, paid or four (4) years volunteer or part-time, paid experience in a California fire department as a fire fighter performing suppression duties. Rank requirement – the person was required to have (one year/two year) respective in the position of a designated department training instructor. Teaching requirement – 160 hours teaching experience within a fire service related program. Followed with submittal of an application and fees.

Fire Instructor III. Up to the mid 2010s, additional educational requirements included Fire Instructor 3, Master Instructor and either Fire Management 2E, Contemporary Issues OR Management 2E, Ethics and the Challenge of Leadership (2009) to qualify to teach Instructor Training at Level I.

“The Department of Forestry and Fire Protection serves and safeguards the people and protects the property and resources of California.”
With qualifications of being an Agency Training Officer and documenting 240 hours’ teaching experience within a fire service related program, a candidate could become certified as Fire Instructor III.

To be the Primary Instructor and teach a California Fire Service Training Education System (CFSTES) Fire Instructor/Training Instructor course for SFT, the following qualifications were required:

- Have attended and passed the SFT course you are applying to teach
- Completed Regional Instructor Orientation
- Completed Ethical Leadership in the Classroom (Signed the Instructor Code of Ethics/Conduct)
- Instructor Training:
  - Completed Fire Instructor 1A, 1B, 2A, 2B, 2C, and 3
  - 2009, Training Instructor 1A/1B/1C (Fire Instructor 1A and 1B), and 2A, 2B, 2C, and 3
- Teaching Experience: Taught a minimum of 160 hours within a fire service related program
- Rank and Experience for CFSTES Class delivery:
  - (a) Instructor 1A and 1B:
    - Held the position of designated department training instructor for a minimum of three (3) years within a California fire department
  - (b) Instructor 2A, 2B, and 2C (both of the following):
    - Held the position of designated department training instructor for a minimum of three (3) years within a California fire department
    - Course specific expertise

The old Fire Instructor II certification track retired on December 31, 2016 with the replacement of the new Instructor I and Instructor II curriculum and certification.

Analysis/Summary of Issue:

During 2014 / 2015 a cadre was formed to look at the Instructor curriculum and certification tracks. The cadre consisted of subject matter experts and current instructors of the level II Fire Instructor curriculum. The cadre initially reviewed the 2012 edition of NFPA 1041, Standard for Fire Service Instructor Professional Qualifications.

In the analysis, the first item that stood out was that NFPA 1041 did not fully address the existing Fire Instructor 2A, 2B and 2C curriculum and recommended that the curriculum be updated for utilization. The cadre utilized instructors and industry standards as our guiding principles to develop and update proposed curriculum. The updated curriculum would be relocated to Fire Service Training Education Program (FSTEP). This FSTEP curriculum will meet the requirements approved to teach CFSTES Instructor curriculum as has been done previously. The similar titles would be utilized and continue for all students that are in the current process of education development.

Updated 2017 Curriculum:

- Techniques of Evaluation (2017)
- Group Dynamics and Problem Solving (2017)
- Employing Audiovisual Aids (2017)

It is the recommendation of the cadre to continue to require the completion of these three courses to qualify Certified Instructor II(s) to be able to teach both Instructor I and Instructor II. This would maintain the model of experience and education development as the California Fire Service has experienced in the past. This level of educational requirements would establish a minimum base of instructional background for the improved professional delivery of Instructor I and Instructor II curriculum.
Instructional Development Series

Techniques Of Evaluation

Course Plan

Course Details

Certification: FSTEP: Instructional Development Series

CTS Guide: None

Description: This course provides the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. The curriculum is based on the 2012 edition of NFPA 1041 Standard for Fire Service Instructor Professional Qualifications and the 2012 edition of NFPA 1403 Standard on Live Fire Training Evolutions. At the end of this course, candidates for Instructor II certification will be able to develop lesson plans and evaluation instruments, teach and deliver instruction, and evaluate and coach other instructors. The Instructor II will also be able to analyze resources and formulate a program budget.

Designed For: Personnel preparing for a college level fire instructor, SFT Certified Training Instructor position, or career development for teaching SFT Instructional Curriculum.

Prerequisites: Instructor I recommended

Instructor II recommended

Standard: Complete all group activities and formative tests. Pass all individual activities without omitting critical criteria as identified on the activity sheet.

Complete all summative tests with a minimum score of 80%.

Hours: Lecture: [18:30]

Activities: [10:30] [Instructor determined activities not included]

Testing: [3:00]

Hours (Total): [32:00]

Maximum Class Size: 25
Instructor Level: SFT Credentialed Instructor. The primary instructor should meet SFT Instructor III qualifications or higher. Alternatively, the primary instructor can meet Instructor II qualifications but must also have completed an intensive FSTEP course in testing as well as an FSTEP course that surveys the areas of testing, audiovisual presentations, e-learning delivery and learning management systems, and group dynamics. Assistant instructors (skills evaluators) should meet Instructor I qualifications or higher.

Instructor/Student Ratio: 1:25

Restrictions: None. Instructor must submit letter for approval of conditions outside the parameters of normal classroom instruction, e.g. class size exceeds 25, compressed course delivery, distance learning format.

SFT Designation: FSTEP
Required Resources

Instructor Resources

To teach this course, instructors need one of the following:

- Important points not already covered in the above texts are called out in bullet points below the enabling learning objective (ELO) in each topic.

Note: This book is designed to provide the occupational teacher with knowledge of the basic principles and methods of measurement, test construction, and evaluation that can be applied in the classroom and used to assess student progress. Because no one occupation receives most of the attention, the book can be readily used in general occupational teacher preparation courses as well as in those specific to one subject. Specific methods that can be used to assess student progress are described and explained, and emphasis is placed on methods of testing for mastery of content and the specific kinds of items used in those tests.

Copies of local agency policies and procedures for the following, and sample forms, such as:

- Needs analysis
- Purchasing
- Scheduling policy
- Budget policy
- Training records
- Record auditing procedures
- Instructor testing and evaluation
- Test blueprint or planning sheet
- Classroom evaluation
- Online learning safety standards, practices, and risk management

Online Instructor Resources

- Textbook downloadable resources on publisher websites

The following instructor resources are available online at http://osfm.fire.ca.gov/training/traininginstructor.php:

- Cognitive Lesson Plan Format
- Psychomotor Lesson Plan Format
- Test Analysis tool and questionnaire
Student Resources

To participate in this course, students need textbooks, as indicated by the instructor:


Students may be asked to supply:

- Their own laptop or tablet with presentation or other viewing hardware and/or software
- Other devices as needed for distance learning

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility, which may include:
  - Writing board or paper easel chart
  - Markers, erasers
  - Amplification devices
  - Projector and screen
  - Laptop or tablet with presentation or other viewing software
  - Access to a computer lab for some sessions
  - Access to an outdoor facility for some sessions
  - Equipment as needed for student-led demonstrations or psychomotor lessons such as appliances, extinguishers, hose, hand tools, ladders, power tools, protective equipment/clothing, rope, salvage equipment, simulation materials.
Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective
At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

Enabling Learning Objectives
1. Identify facility requirements
   - Restroom locations
   - Food locations
   - Smoking locations
   - Emergency procedures
2. Identify classroom requirements
   - Start and end times
   - Breaks
   - Electronic device policies
   - Special needs and accommodations
   - Other requirements as applicable
3. Review course syllabus
   - Course objectives
   - Calendar of events
   - Course requirements
   - Student evaluation process
   - Assignments
   - Activities
   - Required student resources
   - Class participation requirements

Discussion Questions
1. What is a formative test? What is a summative test?

Activities
2. To be determined by the instructor.
3. Activity: Have students’ pair up with someone they do not know. For five minutes, interview each other (2 ½ minutes each). Be prepared to introduce the other student to the class. Allow 30 minutes.

Topic 1-2: Instructor Certification Process

Terminal Learning Objective
At the end of this topic, a student will be able to identify different levels in the Instructor certification track, the courses and requirements for Instructor I certification, and be able to describe the certification task book and testing process.
Enabling Learning Objectives

1. Identify the different levels of certification in the Instructor certification track
   - Instructor I
   - Instructor II
   - Instructor III
2. Identify the courses required for Instructor I
   - Instructional Methodology
3. Identify any other requirements for Instructor I
4. Describe the certification task book process
   - Complete all prerequisites and course work
   - Submit application and fees to request certification task book
   - Complete all job performance requirements included in the task book
   - Must have identified evaluator verify individual task completion via signature
   - Must have Fire Chief or authorized representative verify task book completion via signature
   - Must be employed by a California Fire Agency in the position prior to submitting completed task book to State Fire Training
5. Describe the certification testing process
   - Complete coursework
   - Schedule online certification test
   - Schedule skills evaluation test

Discussion Questions

1. How many levels are there in the Instructor certification track? What are they?
2. By completing three identified of the FSTEP classes, what does that qualify you to do?

Activities

1. To be determined by the instructor.

Topic 1-3: Definition of Duties

Terminal Learning Objective
At the end of this topic, a student, given the definitions of duty, will be able to define the role of the Instructor(s) with regard to program management, instructional development, instructional delivery, and evaluation and testing.

Enabling Learning Objectives

1. Describe program management
   - The management of basic resources and the records and reports essential to the instructional process
2. Describe instructional development
   - The review and adaptation of prepared instructional materials
   - The Instructor I should not alter the content or the lesson objectives in this process
3. Describe instructional delivery
   - The delivery of instructional sessions utilizing prepared course materials
4. Describe evaluation and testing
Techniques of Evaluation

- The administration and grading of student evaluation instruments
- Primarily deals with student evaluation; however, the Instructor I could be required to conduct program evaluations according to policies and procedures.

5. Describe Instructional classes included in the Fire Service Training and Education Program (FSTEP) that Instructors must complete to qualify for teaching Instructor Curriculum
- The administration and grading of student evaluation instruments

Discussion Questions
1. What is the basic definition of the Instructor levels in State Fire Training?
2. What is the basis for the three core classes identified in FSTEP to qualify Instructors to teach the Level I through Level III curriculum?
3. What are the restrictions of an Instructors regarding testing?

Activities
1. To be determined by the instructor.

Unit 2: Federal and State Vocational Laws

Topic 2-1: Performance Based Accountability in Federal Law

Terminal Learning Objective
At the end of this topic, a student, given major vocational education laws and legislative milestones, will be able to define the impact on instructional development materials, so that governing local standards, state laws, and federal laws are considered with performance based accountability.

Enabling Learning Objectives
1. Describe major vocational education laws since the Smith-Hughes Act of 1917
   - Laws have included accountability requirements
   - The tools for achieving accountability have become more outcome-oriented over time
2. Describe 1990 legislation marks
   - Significant turning point in federal accountability
   - Explicitly tying the process of state and local review to standards based on outcomes
3. Identify legislative milestones influencing accountability in Federal Vocational Education Programs
   - 1917: Smith-Hughes Act
   - 1963: Vocational Education Act
   - 1968: Vocational Education Amendments
   - 1976: Vocational Education Amendments
   - 1984: Carl D. Perkins Vocational Education Act
   - 1988: Family Support Act
Techniques of Evaluation

- 1988: Hunger Prevention Act
- 1990: Carl D. Perkins Vocational and Applied Technology Education Amendments

Discussion Questions
1. How did Smith-Hughes Act 1917 change with respect to vocational training?
2. How did federal vocational education programs influence our vocational training system?

Activities
1. To be determined by the instructor
2. Activity: Discuss the implications of Evolution of Performance Based Accountability

Instructor Notes
1. Discuss student handout: Evolution of Performance Based Accountability

Topic 2-2: State and Federal Law Implications to Training

Terminal Learning Objective
At the end of this topic, a student, given state and federal laws, will be able to define the impact on instructional development materials, so that governing local standards, state laws, and federal laws are considered with evaluation assessment instruments.

Enabling Learning Objectives
1. Describe Legal Implication to instructors
   - Laws, codes, ordinances, and decrees that are legally binding requirements are created at most levels of government statutes that ensure safety and welfare of society
   - In the US, the Code of Federal Regulations (CFR) applies to many areas of the fire and emergency services while the Americans with Disabilities Act (ADA) mandates that public facilities be accessible to people with physical impairments
   - Liability is a term used to describe a legal responsibility
   - Negligence is a breach of duty where there is a responsibility to perform
     o Providing incorrect information or instruction
     o Failing to instruct a topic they are responsible to teach
     o Teaching a topic they are unqualified to instruct
     o Failing to provide for safety
   - Foreseeability
     o The act of foreseeing consequences and taking reasonable precautions to avoid: trip hazards, damaged or unsafe equipment, environmental hazards
     o Confirming students that are not fit or physically capable of performing the skill
     o Lack of appropriate supervision or safe operating conditions
   - Vicarious liability
     o Blame for actions of one person can be transferred to another person or organization
   - Liability reduction
Courts have come to expect that reasonable and prudent instructors should perform the following steps as a normal part of their instructional preparation, especially when delivering psychomotor skills training:

- Develop a safety plan or formally develop a strategy to prevent injuries
- Follow the safety plan
- Provide for health and safety of students and participants
- Give proper instructions
- Have a written safety message

Precautions that should be followed to minimize liability:

- Check equipment regularly for safe operating conditions
- Ensure that students are physically fit and prepared for the tasks to be performed
- Instruct and test students in the safe operation of the equipment
- Do not leave students unattended while they are practicing potential dangerous skills
- Do not exceed the individual's skill level when training students or working with other instructors
- Be aware of standard expectations
- Teach to established standards
- Teach only topics you are qualified to teach
- Provide a safe learning environment
- Post the safety message
- Instructors are expected to predict and anticipate the potential for injuries that may arise from psychomotor skills training

2. Describe psychomotor training and students’ rights (State and Federal)

- Each student has substantive rights established by law
  
  - Family Educational Rights and Privacy Act (1974) provides privacy of records and test scores
  - Americans with Disabilities Act (1990) provides equal access to the learning environment and materials being taught
  - Title VII of the Civil Rights Acts (1964) confirms fair and equal treatment in a non-hostile learning environment free of discrimination and harassment
  - Additional substantive student rights related to psychomotor skills training
  - Reasonable regulations are necessary to protect students during training activities and are justified even though they may be perceived as infringing on students rights
    - Requiring full turnout gear on the drill ground for student safety
    - Disagree with the instructor or institution
    - Safe learning environments

3. Describe Cal/OSHA and General Safety Orders

- Cal/OSHA is the state agency that regulates and enforces California workplace safety and health standards
- Citations
Techniques of Evaluation

- Issued for any violations of the standards
- A written notice of a safety or health violation usually based upon an inspection of a workplace or industrial accident
- Typically must be issued within six months of the alleged violation and must describe the violation with particularity
- Must provide notice of any proposed penalty and provide a reasonable time for abatement

- Five violation categories
  - Regulatory violation occurs when an employer fails to comply with administrative safety and health requirements, such as record keeping, reporting, posting, or permit requirements
  - General violation occurs when an injury or illness results from a safety or health violation that is determined not to be likely to cause death or serious harm
  - Serious violation occurs where there is a substantial probability that a safety or health violation could result in death or serious injury and/or occurs whenever an employee suffers any loss of a body part, any degree of permanent disfigurement, or any injury requiring hospitalization (other than for observation) for more than 24 hours
  - Willful violation occurs where it is determined that the employer and/or employee committed an intentional and knowing safety or health violation, yet made no reasonable effort to eliminate the resulting hazard
  - Repeat violation occurs where an employer repeats the same safety or health violation within three years of a previous violation

4. Describe Instructor Ethics
   - Ethics are philosophical principles that are used to determine correct and proper behavior by members of a society
   - Remind students of: Instructor Code of Ethics / Conduct

Discussion Questions
1. How did state and federal laws create major legal implications for instructors?
2. What are some basic elements that an instructor should follow to minimize liability?
3. What are some federal or state laws that have implications to instructors with respect to training?
4. What is the basis of Cal/OSHA and general safety orders regarding training?
5. What are the five levels potential violations that instructor has to be concerned?

Activities
1. Review the Instructor Code of Ethics / Conduct

Instructor Notes

Unit 3: Principles of Evaluation
Topic 3-1: Review Purposes and Principles of Testing

Terminal Learning Objective
At the end of this topic, a student, given purposes and principles of tests, will be able to develop testing instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Describe purposes of testing (Why)
   - Evaluation is the last step in the four step method of instruction
   - Evaluation is accomplished by way of observation and testing
   - To determine how well students have learned
   - Determined on how well students have retained information
   - Should result in feedback for the students
   - Evaluates teaching effectiveness
2. Determine “what” to evaluate
   - Attitude factors
     - Receptive
     - Passive
     - Resistive
     - The instructor does not have control over all the factors that develop attitudes
   - Learning abilities
     - Slow learner
     - Course content
     - Teaching method
3. Identify principles of testing (How)
   - Formal test usually develop my professional test makers
   - Informal test usually constructed by instructors to measure the results of their teaching
4. Describe uses for the evaluation process
   - Emphasize important points
   - Identify participant weakness
   - Identify weaknesses in instruction
   - Hold participants accountable
   - Provide a basis for reporting success
5. Select appropriate testing instruments to address:
   - The domains of learning
     - Cognitive
     - Psychomotor
   - Levels of learning ranging from basic to advance
   - The level of difficulty presented in a course
     - Beginner
6. Describe test usability
   • Important factor to consider when developing a test or when selecting a test developed by another organization
   • A usable test has the following characteristics:
     o Easy for the instructors to give
     o Easy for the students to take
     o Cost effective
     o Easy to administer
     o Appropriate in length
     o Contains multiple testing instruments
     o Easy to score
     o Convenient all around

Discussion Questions
1. What are the purposes of testing?
2. What are elements that we should evaluate?
3. What are some basic uses considered for the evaluation process?
4. What are the three domains that are considered would be addressed evaluation assessment?
5. What are some common elements defined in test usability?

Activities
1. To be determined by the instructor

Instructor Notes
1. Additional information: IFSTA: 225, 301, 318, JB: none

Topic 3-2: Approaches to Student Assessment

Terminal Learning Objective
At the end of this topic, a student, given design test considerations, will be able to construct assessment instruments that are reliable, so that the assessment instruments are determined to be valid and comprehensive with the objectives or learning outcomes.

Enabling Learning Objectives
1. Determine student assessment
   • Norm-referenced
     o Measures the accomplishment of one student against that of another
     o At the end of the instructional unit, an exam is given
     o The results are scored
     o Scores are translated into grades
     o Grades are often based on the distribution of scores which can be either normal or bell shaped
     o Typically found in promotional testing and determining ranking recruits
   • Criterion-referenced
Techniques of Evaluation

1. A standard on which to base a decision for judgment
   - Compares student performance with the criteria stated in learning objectives
   - Not with the performance of other students
   - Typically used to evaluate psychomotor skills

2. Evaluating Testing Instruments in Measuring Student Achievement
   - Assessment is based on the students achievement
     - Oral - Written - Performance tests
     - May be subjective based on the perception of the learner/student
     - Instructor must constantly motivate the students, to reach their “affective domain”, in order to achieve success which will be determined by the evaluating testing instrument
     - Can be difficult times if the students are resistant to change
     - Thus the instructor always has to address the “affective domain”

3. Objective and Subjective Testing
   - Objective tests usually requires the participants to respond with a specific answer, scoring is not influenced by outside factors
     - Two major categories: recognition tests and recall tests
   - Subjective test is one that has no single correct answer
     - Three major categories: short answer or completion, essay, and an interpretive exercise
     - The evaluators judgment therefore affects assessment
     - Subjective items are an effective way of measuring higher cognitive levels
     - Maybe open to interpretation buy different instructors as evaluators

4. Determine test validity
   - Test validity is the extent to which a test measures what it is supposed to measure
   - It is built into the task by selecting an ample number of test items for each learning level and content area
   - Test items should require students to display specific knowledge of the appropriate learning objective
   - Test validity has a specific meaning when interpreting criterion-referenced tests
   - Validity refers to measurement of mastery or non-mastery buy a student
   - Considered very critical when comparing to established learning objectives
   - Data collection will show historical significance Love those established learning objectives

5. Determine test reliability
   - A reliable test is one that provides consistent, accurate measurements of student achievement
     - Clear instructions
     - Clear, well written test items
     - Specific scoring criteria
   - Test reliability has a specific meaning when interpreting criterion-referenced tests
Techniques of Evaluation

- Reliability indicates the consistency of results and classifying mastery or non-mastery of an individual.
- Data collection will show historical significance of constant reliability.
- Test lengths must be evaluated:
  - Generally, longer tests are more reliable than short tests but may not be more valid.
  - Reliability can be less if the test is constantly overly long.
- A reliable test is free from:
  - Ambiguous items or directions.
  - Vague scoring criteria.
  - Environmental distractions.
  - Opportunities for cheating or guessing.

6. Devoting attention to each of these test characteristics:
- Analyzing a test each time it is given.
- Discarding or rewriting test items that do not meet requirements.
- Together aids in improving test reliability and test validity.
- One important factor that is a threat to validity and reliability is bias:
  - Avoid bias towards one group or individual.
  - Avoid words or cultural references.
  - Avoid ethnic, economic, social, or cultural influences and background.

7. Workability/practicability:
- Consider approach with students.
- Consider cross-generational marketing of students.
- Reinforce interaction amongst everyone:
  - Instructor to students interaction.
  - Student to students interaction.
  - Students to instructor interaction.
  - How do these change during an educational exchange.

8. Describe comprehensiveness of testing:
- Determined by the objectives in the lesson, or session being delivered.
- For each session, there is an objective identified.
- Total coverage each of these objectives or sessions needs to be captured in order to be comprehensive in the testing process which is captured with the test planning sheet.

9. Identify discrimination:
- Process for identifying the students with weak performances versus the students that perform well.
- Students that are not performing based on criterion referenced objectives.

10. Describe the three sides of the evaluation triangle (unlike the fire triangle):
- Criteria – enabling learning objectives or learning outcomes.
- Judgment – decision which evaluates results.
- Evidence – test results.
Techniques of Evaluation

Discussion Questions
1. What are the two major types of a reference assessment?
2. What are the three categories of testing instruments used in measuring student achievement?
3. What is the difference between an objective and subjective testing?
4. What is test validity?
5. What is test reliability?
6. Can day test to be discriminatory?

Activities
1. To be determined by the instructor

Instructor Notes

Topic 3-3: Test Classifications

Terminal Learning Objective
At the end of this topic, a student, given definitions and classifications of tests, will be able to determine the purpose or direction of assessment evaluation, so that selection of the evaluation assessments meet or conform to industry standards.

Enabling Learning Objectives
1. Identify how criterion-referenced and norm-referenced tests can be divided into more specific classifications
   - Prescriptive
     - Administered at the beginning of instruction to establish a current level of knowledge
     - This generally will be compared to a summative evaluation to determine the amount of learning that has occurred
   - Formative
     - Typical test that is given throughout the course or learning session
     - Used to measure improvement and give the instructor and students feedback on the learning process
     - Basic question: Is the students achieving the objectives?
   - Summative
     - Measures comprehensive knowledge and skills at the end of the course session or major segments of the course
     - Basic question: Has the students achieve the course objectives?
2. Determine administration classification (oral, written, performance)
   - Assessment is based on how the test is administered
     - Oral (verbal questions) which measure either cognitive or a communicative ability
     - Written (multiple-choice, true false, matching, short answer, essay) which measure cognitive ability
Techniques of Evaluation

3. Describe capstone testing
   - Capstone exams are administered to students to obtain certifications, licensure examination or national certification
   - State Fire Training is moving towards capstone testing
     - Prior to July 1, 2012 State Fire Training (SFT) developed and distributed certification exams for each individual course delivered as a component of CFSTES
     - Since July 1, 2012, SFT no longer develops and distributes certification exams
     - July 22, 2011 STEAC approved the implementation of the performance based task book process to assess each certification candidate's qualifications. SFT has been phasing in task books as certification tracks and associated courses are updated
     - As a component of the Mission Alignment Process SFT has been pursuing national recognition in the form of accreditation by both the International Fire Service Accreditation Congress (IFSAC) and the National Board on Fire Service Professional Qualifications (Pro Board).
     - Both IFSAC and Pro Board require written and/or skills capstone testing to satisfy their respective certification requirements.
     - In fact, beyond processing procedures the singular focus of their requirements is how a prospective accredited agency (SFT) develops, validates, proctors and scores capstone examinations.

4. Analyze safety considerations involved with testing environments
   - Arrive early to set up
   - Early set up allows for issues to be identified
   - Allow for corrections quickly

Discussion Questions
1. How do we measure if a student is achieving objectives during a learning session?
2. How do I measure that a student has achieved the course objectives?
3. What are the basic concepts of capstone testing?
4. What are some basic safety considerations you should consider involving testing environments?

Activities
1. To be determined by the instructor

Instructor Notes
1. Additional information: IFSTA: 227-228, JB: none

Unit 4: Planning Evaluation and Assessment

Topic 4-1: Test Planning
Terminal Learning Objective
At the end of this topic, a student, given test planning design components, will be able to construct a test plan, so that a comprehensive and thorough test plan reflects the overall course objectives or learning outcomes.

Enabling Learning Objectives
1. Determine scope of Test Planning in three major steps
   - Determine test purpose and classification
   - Define learning objectives or learning outcomes
   - Construct the appropriate test items
2. Determine test purpose and classification
   - Instruction must be based on learning objectives
   - The test must reflect those objectives
   - A test item should be included for each objective
   - In addition, a test item should be included for each level of a question
     - Level one question for level one information
     - Level two question for level two information
     - This allows the instructor to identify mastery of one level of information over another
     - Consider the levels of the cognitive domain learning when writing questions and confirming the depth of that lesson material
3. Tools for Test Item Development
   - Test-planning sheets
     - Most common form for determining testing elements in concert with objectives
   - Table of specifications
     - Limited Use – maybe requested by educational institutions desiring more critical thinking with evaluation instruments

Discussion Questions
1. What are the three major steps of test planning?
2. What is a test-planning sheet?
3. What is a table of specifications?
4. What is the basis for the depth of questioning?

Activities
1. To be determined by the instructor
2. Activity: Create a test-planning sheet (group or individual) 30 minutes

Instructor Notes
1. Additional information: IFSTA: 313, JB: 231

Topic 4-2: Test Adaptation
Terminal Learning Objective

At the end of this topic, a student, given test adaptation concepts, will be able to adapt a test, so that an evaluation assessment will eliminate test distractions and maintain test security.

Enabling Learning Objectives

1. Lead time for set-up
   - Prepare skill checklist, along with the appropriate time limits for each of the steps necessary to perform the scale
   - Determine the number of test evaluators, needed to observe and measure the performances of the students
   - Review the operation of unfamiliar the Equipment with all instructors and test evaluators
   - Consider volunteers to test candidates to train the evaluators

2. Describe reasons for adapting tests
   - Ensure complete coverage
   - Filter non-pertinent information for alternative application
   - Update content with latest available information to eliminate outdated content
   - Address specific audiences, different organizations, different agencies
   - When adaptations are made, the instructor should document
     - The reason for modifications
     - Types of modifications
     - The result of the modifications
   - When the testing is part of a certification program or course, the instructor should consult with the Training Division before making any modifications that could jeopardize certification or established objectives
   - Procedures to follow after altering lesson materials
   - If lesson materials were adapted – the testing tools will need to be adapted
     - Adapt to available resources
     - Adapt to instructional environment
     - Adapt to class size
   - Adapt test instruments to be consistent to changes in enabling objectives and

3. Need assessment for ADA concerns
   - Refer to Topic 8-4 for detail on ADA requirements

4. Security of testing components
   - Maintain security through all phases of the test process

Discussion Questions

1. What are some factors to consider for lead time set up with test adaptation?
2. What are some reasons that would require test adaptation?
3. What are some factors to consider with respect to ADA and test adaptation?

Activities

1. To be determined by the instructor
Techniques of Evaluation

Instructor Notes
1. Additional information: IFSTA: none, JB: none

Topic 4-3: Performance Testing

Terminal Learning Objective
At the end of this topic, a student, given performance testing design concepts, will be able to construct a performance test, so that a measurable performance test is administered meeting objectives or learning outcomes with maximum safety observations.

Enabling Learning Objectives
1. Lead time for set-up
   - Determine the materials, tools, or it could with the students must have in order to perform the skills or activities
   - Prepare skill checklist, along with the appropriate time limits for each of the steps necessary to perform the scale
   - Determine the number of test evaluators, needed to observe and measure the performances of the students
   - Review the operation of unfamiliar the Equipment with all instructors and test evaluators
   - Consider volunteers to test candidates to train the evaluators
2. Security of testing location
   - Maintain as much as possible the security every test site
   - Avoid areas and spaces accessible by the public
   - Maintain test scrutiny by maintaining test security
3. Consider alternative evaluators if a retest is going to be scheduled
4. Safety Management concerns
   - Have Safety Officer Assigned to troubleshoot predictable situations
   - Consider having an incident action plan to cover the testing process, site access, evolution assigned areas, skills assigned areas, staging areas, or restricted areas to be identified
   - Includes a medical plan in your incident action plan

Discussion Questions
1. What are some common factors to consider for lead time set up with performance testing?
2. What are some pitfalls or weaknesses you should consider with security of the testing location?
3. What are some factors to consider for alternatives if a retest is to be scheduled?
4. What are some safety factors to consider with performance testing?

Activities
1. To be determined by the instructor
2. Allow 2 Hours for Performance Testing

Instructor Notes
Unit 5: Methods of Evaluation

Topic 5-1: Cognitive Evaluation

Terminal Learning Objective
At the end of this topic, a student, given cognitive evaluation concepts, will be able to construct a cognitive evaluation assessment tools, so that a cognitive test is administered meeting objectives or learning outcomes correlating to course materials.

Enabling Learning Objectives
1. Identify the learning objectives that the test will evaluate
   • Major consideration to consider: the objective or learning outcome
   • This occurs after determining the purpose and classification of the test
   • Learning objectives reflect the course outcomes
   • This is what students should have a learned at the end of the course
     o Example: Upon completion of ________ course, the student, given proper equipment, will be able to perform ________, so that ________ are followed without safety violations.
   • The test should be based upon the specific objectives taken from each part of the course for individual lesson plan
   • They are specific, detailed, and measurable
   • Should have an identified level of proficiency that each student must achieve which is captured by the type and depth of the tests use to measure these objectives
2. Identify the cognitive levels of learning assessed during evaluation (the first three are most common in the fire service / vocation education)
   • Remember (Knowledge)
   • Understand (Comprehension)
   • Apply (Application)
   • Analyze (Analysis)
   • Evaluate (Evaluation)
   • Create (Synthesis)
3. Identify common considerations for all tests
   • Test formatting
   • Arrangement of test items
   • Test item level of cognition
   • Difficulty of test items
   • Test instructions
   • Test item example
   • Time requirements
4. Identify the basic test item construction elements
   • Stem consist of either a question or incomplete statement
   • Choices (alternatives) are the total responses possible for the student to consider
Techniques of Evaluation

- Answer is the one correct choice from the possible alternatives
- Distractors are the remaining choices of the alternatives
  - Distractors discriminate between students who understand the subject material versus the students who know only a little and therefore are uncertain about the correct answer
- Avoid specific determiners, or clues or severe distractors
- Avoid all of the above/some of the above
- Avoid grammatically incorrect
- Eliminate language and comprehension barriers
  - Higher reading level than the students possess
  - Lengthy, or unclear sentences
  - Vague directions
  - Unclear graphic materials
  - Obsolete words or terms

5. Identify the types of evaluation tests
   - Multiple-Choice Tests
   - True-False Tests
   - Matching Tests
   - Short-Answer Tests
   - Essay Tests
   - Interpretive Exercises

6. Describe the considerations involved in cognitive evaluations
   - Bias

Discussion Questions
1. What is the major consideration to consider when designed a cognitive evaluation?
2. What are the three most common elements for considerations with a cognitive evaluation?
3. What are common considerations regarding fault test?
4. What are common basic test item construction elements?
5. What are the common written types of the evaluation tests?

Activities
1. To be determined by the instructor

Instructor Notes
1. Additional information: IFSTA: 228, 302-303, JB: 231, 241

Topic 5-2: Psychomotor Evaluation

Terminal Learning Objective
At the end of this topic, a student, given psychomotor evaluation concepts, will be able to construct a psychomotor evaluation assessment tools, so that the psychomotor evaluation is administered meeting objectives or learning outcomes correlating to course materials.

Enabling Learning Objectives
1. Define psychomotor tests
• A performance or skills test that measures a student’s proficiency in performing any task that involves psychomotor objectives
• Assessment is based on either:
  o Speed standard (timed performance) or
  o A quality standard - minimum acceptable performance or
  o Both
• Performance test require students to demonstrate psychomotor proficiency after appropriate practice for drill sessions

2. Describe psychomotor evaluation guidelines
• Specify performance objectives to be measured
• Select rating factors on which the test will be judged
• Provide written instructions that clearly explains the
• Test situation try a new performance test on other
• Before administering it to the students use more than one test evaluator
• Follow established
• When administering the test, make a score distribution chart after test has been administered
• Rotate team members to every position for the team evaluation ratings
• A performance test is the only valid method of measuring students’ ability to perform

3. Identify the types of psychomotor tests
• Individual skill
• Company skill
• Multi-company skill
• Project Approach
  o Proboard/IFSAC will be moving towards this approach of more in depth assessment for JPRs for advance levels of testing
• Be sure to manage safety at all time for all types of evaluations

4. Describe the considerations involved in psychomotor evaluations
• Bias

5. Safety Management concerns
• Paramount
• Very critical factor that must be constantly evaluated
• “Did I mention – Safety?”

6. Site Survey
• Accessibility
• Site overview
• Safety
• Being proactive to performance barriers
• Site security

Discussion Questions
1. What is a definition of the psychomotor test?
Techniques of Evaluation

2. What are some psychomotor evaluation guidelines?
3. What are the types of psychomotor test?
4. What are some of pitfalls of being considered biased in a psychomotor evaluation?
5. What one factor has to be considered is Very critical with respect to psychomotor testing?
6. What are some factors to consider with a site survey?

Activities
1. To be determined by the instructor

Instructor Notes

Unit 6: Construction and Use of Cognitive Evaluation Instruments

Topic 6-1: Constructing Multiple-Choice Tests

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of cognitive evaluation instruments, will be able to construct cognitive evaluation instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define multiple choice test
   • Single question followed by multiple possible answers, of which only one is correct
   • You’re Very beneficial type of test use to measure achievement in abroad Area of subject matter
   • May be considered minimal measurement because the answer is provided, the issue is can the student recognize the answer
2. Describe components and aspects of a multiple-choice test
   • Stem consist of either a question or incomplete statement
   • Choices (alternatives) are the total responses possible for the student to consider
   • Answer is the one correct choice from the possible alternatives
   • Distractors are the remaining choices of the alternatives
3. Develop effective construction techniques
   • Include an example item with example answer
   • Write this them in the form of a direct question or incomplete statement
   • Confirm that you’re measuring only one learning outcome
   • Be clear, with a brief stem that contains most of the wording
   • Write positive statements
   • If negative statements are used, emphasize the negative word with underline for bold
   • Make sure that the distractors are plausible enforce this student to think
   • Make all the choices the same length
   • Avoid using phrases such as all the above or none of the above
• Place correct answers in varied positions on among A, B, C, and D choices
• Place each choice on a separate line
• Utilize State Fire Training format or a AHJ format if more restrictive
  o Specific for matting details maybe determined or restricted by vocal policy, or computer generated software

Discussion Questions
1. What is a multiple-choice test?
2. What are the components of a multiple-choice test?
3. What are some common construction techniques with a multiple-choice test?

Activities
1. Allow 1 hour for activity OR
2. Activity addresses topics 6-1 through 6-4. Allow 5 hours to each of four types of tests and to present them.
3. Instructor note can break it up to have them do some after each topic or make one big test out of all of them. Must be completed in class.

Instructor Notes

Topic 6-2: Constructing True-False Tests

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of true-false tests, will be able to true-false test instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define true-false test
   • Students determine whether a statement is true or false
   • Very beneficial type of test to create interactive classroom discussion perhaps because the answer maybe more true than false
2. Describe components and aspects
   • Include an example item with example answer
   • Difficulty exist with constructing the statement that is either completely true or completely faults
   • Avoid specific determiners
5. Avoid words such as Lead time for set-up
   • Sometimes,” “generally,” “usually,” “often” which are clues to true statements
   • Avoid words such as “always,” “never,” “all,” “none” which are clues to false statements
   • Avoid double negative items
   • Avoid pronouns especially such as “you”
   • Avoid quoting verbatim from the book
3. Develop effective construction techniques
   • Be consistent with that length of the statements
Techniques of Evaluation

- True statements should be based upon facts
- False statements should be based on common misconceptions of the facts
- Write statement items that require a student to think about what they have learned, rather than merely what is remembered about an item
- Create a sufficient number of test items better based on true or fault statements
- Utilize State Fire Training format or a AHJ format if more restrictive
  - Specific for matting details maybe determined or restricted by vocal policy, or computer generated software

Discussion Questions
1. What is a true-false test?
2. What are the components of a true-false test?
3. What are some common construction techniques with a true-false test?

Activities
1. Allow 30 minutes for activity OR
2. Activity addresses topics 6-1 through 6-4. Allow 5 hours to each of four types of tests and to present them.
3. Instructor note can break it up to have them do some after each topic or make one big test out of all of them. Must be completed in class.

Instructor Notes
1. Additional information: IFSTA: 304, JB: 244

Topic 6-3: Constructing Matching Tests

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of matching tests, will be able to construct matching test instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define matching test
   - Students match dates, events, or items from one call with appropriate definitions from the second column
   - Very beneficial type of test to measure basic terminology or basic concepts
2. Describe components and aspects
   - Construct two parallel columns of words, phrases, images or a combination of these
3. Develop effective construction techniques
   - Include an example item with example answer
   - Place appropriate titles at the head of each column
   - Arrange problems in a systematic manner (consider instructional order)
   - Utilize imperfect columns or choices to force the student to select from appropriately from plausible alternatives (more responses than problem statements)
   - For every item in the problem column there should be one clear matching response
   - List the Choices in alphabetical order, chronological order, or numerical order
   - Avoid specific determined there’s four clues to the answers
Techniques of Evaluation

- Do not include responses that are obviously wrong
- Instruction should indicate whether a response can be used more than once
- Utilize State Fire Training format or a AHJ format if more restrictive
  - Specific for matting details maybe determined or restricted by vocal policy, or computer generated software

Discussion Questions
1. What is a matching test?
2. What are the components of a matching test?
3. What are some common construction techniques with a matching test?

Activities
1. Allow 30 minutes for activity OR
2. Activity addresses topics 6-1 through 6-4. Allow 5 hours to each of four types of tests and to present them.
3. Instructor note can break it up to have them do some after each topic or make one big test out of all of them. Must be completed in class.

Instructor Notes

Topic 6-4: Constructing Short-Answer (Completion) Tests

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of short-answer, will be able to construct short answer test instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define short-answer test
   - Type of test where questions require a brief factual answer (limited selection of answers or like answers)
   - Very beneficial type of test to measure higher level of understanding
2. Describe components and aspects
   - Involves key process of utilizing questions that requires an answer from recall memory
   - Can be an incomplete statement with a keyword(s) eliminated with the missing word having a blank line
3. Develop effective construction techniques
   - Include an example item with example answer
   - Create short, concise, and direct statements so that only one answer is possible
   - Avoid long, involve statements with a string of blanks to fill
   - Start with a direct question and change it to an incomplete statement
   - Ensure that the answer is a key point in the lesson
   - Arrange the statement in order to place the plank at or near the end of a sentence
   - Avoid statements that call for answers with more than one word, phrase, or number
   - Eliminate clues in the statement
Techniques of Evaluation

- Utilize State Fire Training format or a AHJ format if more restrictive
  - Specific for matting details maybe determined or restricted by vocal policy, or computer generated software

Discussion Questions
1. What is a short-answer test?
2. What are the components of a short-answer test?
3. What are some common construction techniques with a short-answer test?

Activities
1. Allow 30 minutes for activity OR
2. Activity addresses topics 6-1 through 6-4. Allow 5 hours to each of four types of tests and to present them.
3. Instructor note can break it up to have them do some after each topic or make one big test out of all of them. Must be completed in class.

Instructor Notes
1. Instructor can break up the activity to have students do some after each topic; or make one big test out of all of them. Activity must be completed in class.
2. Additional information: IFSTA: 307, JB: 244

Topic 6-5: Constructing Essay Tests

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of essay tests, will be able to construct essay test instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define essay test
   - Type of test where questions requires a lengthy, sometimes subjective answer
   - Very beneficial type of test to measured in depth knowledge bye-bye single particular item
2. Describe components and aspects
   - Create a guideline for constructing the essay test
   - Take note of the objectives that must be met when scoring the essay
   - Write an outline of the acceptable responses
   - The outline will be used as a guide for scoring the individual essays
3. Develop effective construction techniques
   - Clearly defined the task to be completed when responding to each question
   - Give thorough and specific directions that designate
     - The time to spend on each question
     - The length of each response
   - Provide enough time for students to respond to all questions
   - Document appropriate plausible answers that must be accepted for all essays submitted
     - These answers will accumulate in time if the same testing tool is utilized
Techniques of Evaluation

- Utilize State Fire Training format or a AHJ format if more restrictive
  - Specific for matting details maybe determined or restricted by vocal policy, or computer generated software

Discussion Questions
1. What is an essay test?
2. What are the components of an essay test?
3. What are some common construction techniques with an essay test?

Activities
1. To be determined by the instructor
2. Allow 30 minutes

Instructor Notes
1. Additional information: IFSTA: 308, JB: 245-247

Topic 6-6: Constructing Interpretive Exercises

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of interpretive exercises, will be able to construct interpretive exercises, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define interpretive exercise
   - Type of test that is subjective where instructional material is presented where then the student responds to various types of questions to measure achievement
   - Very beneficial type of test to measured higher level of cognitive processes
   - Very beneficial type of exercise that incorporates case studies, fire analysis, for target assessment or hazard assessment
   - Effective method for testing outcomes that involve comprehension, application, analysis, synthesis, and evaluation
2. Describe components and aspects
   - Introductory material such as data, graphs, paragraphs of text, situations which are followed by a series of test items or evaluation instruments
3. Develop effective construction techniques
   - Make sure that all introductory material relates to the key learning objectives and is concise as possible
   - For each item, apply relevant guidelines for each effective item construction
   - Use test items that require the same type of performance that is listed in the test specifications for the various learning objectives
   - Create introductory material that is unfamiliar to the students, this will force the students to rethink elements of the situation and then in turn apply different responses
   - Answers to the test Instruments should not be contained in the introductory material
• Answers cannot be identified without reading or utilized without reading the introductory material
• This is very important to reach the third level of the cognitive domain - Application

4. Develop interpretive exercises
• Should incorporate case studies (in class)
• Create “What if” scenarios’ for potential target or high risk targets located in AHJs jurisdiction

5. All of the previous information also applies to simulations
• Evaluate for jurisdictional or hazard target
• Include “what if” or wild cards to change up the scenarios for optional alternatives

Discussion Questions
1. What is an interpretive exercise?
2. What are the components of an interpretive exercise?
3. What are some common construction techniques with an interpretive exercise?

Activities
1. To be determined by the instructor
2. Allow 1 Hour for activity

Instructor Notes
1. Additional information: IFSTA: 308, JB: 169, 196

Unit 7: Construction and Use of Psychomotor Evaluation Instruments

Topic 7-1: Constructing Performance Evaluations

Terminal Learning Objective
At the end of this topic, a student, given components and concepts of psychomotor evaluations, will be able to construct psychomotor evaluation instruments, so that test item construction is completed with SFT guidelines or meeting college educational standards.

Enabling Learning Objectives
1. Define components and aspects
   • Must be used when confirming psychomotor skills learning, or hands-on skills
   • Identify psychomotor skills from the objectives from the instructional materials

2. Describe effective construction techniques
   • Should be administered under controlled conditions
   • Specify performance objectives to be measured
   • Select rating factors on which a test will be judged
   • Rate the students against the standard, criterion reference standards
   • Consider combining several basic skills into a task which will reduce time required for administration
   • Design a rating form that may include:
     o Students approach to a standard job core procedure
     o Care shown in handling tools, equipment, and
Techniques of Evaluation

- Materials demonstration of accuracy
- Display of confidence
- Time required to complete the job or procedure safely
- Observation of safe practices

- Try a new performance test on other instructors before using it on students
  - This will attempt to confirm and measure the validity
  - Allows to uncover problems that can’t be corrected in the design process
- Utilize State Fire Training format or a AHJ format if more restrictive
  - Specific for matting details maybe determined or restricted by vocal policy, or computer generated software

3. Develop psychomotor evaluation (manipulative performance evaluation) in class
4. Describe the importance of practicing with a test-data group the designed performance evaluation prior to testing students

Discussion Questions
1. What are some components in aspects to consider when designing a psychomotor evaluation?
2. What are some defective construction techniques of a psychomotor evaluation?
3. Why should you practice with a test-data group?

Activities
1. Psychomotor evaluation to be constructed during class
2. Allow one (1) Hour for activity

Instructor Notes

Unit 8: Administering Evaluations and Assessments

Topic 8-1: Managing Evaluation Systems

Terminal Learning Objective
At the end of this topic, a student, given components of an evaluation and design elements of a course, will be able to develop an evaluation system and conduct an evaluation, so that instructors, course materials, and students learning process is validated and deemed reliable.

Enabling Learning Objectives
1. Defined appropriate evaluation instruments
   - To determine the effectiveness of the course
   - To determine the effectiveness of the instructors
     - Provides an assessment of the instructors performance, teaching methods, and training skills
   - To determine the accomplishments of the students who participate in the course
     - Provides feedback on the students knowledge and
     - Students skill level and
     - Assesses need for further study or further practice
   - To identify the course strengths
Techniques of Evaluation

2. Describe evaluation aspects of a course:
   • Evaluate the course outline or curriculum material
     o Confirm the curriculum goal
     o Identify courses or course content for the curriculum
     o Confirmed this sequence of the course content into a logical sequence
   • Time allotted for the course's
   • Equipment used or needed
   • Instructor expectations
   • Student expectations
   • Instructional methods used
   • Learning environments used
   • Evaluation methods used
   • Feedback with the students
     o Pre-test
     o Post-test

3. Describe evaluation of the assessment instruments
   • Provides feedback on test validity
   • Provides feedback on test reliability
   • Provides results to analyze reasons for failure and determining areas to adjust and improve
   • Low scores could indicate one of the following:
     o Instructors did not teach to the objectives
     o Course was not suited to the level of the students
     o Evaluation instruments may not have been valid

Discussion Questions
1. What are basic components of an evaluation?
2. What are the elements of course that should be evaluated?
3. What are elements of the assessment instruments that should be evaluated?

Activities
1. To be determined by the instructor

Instructor Notes

Topic 8-2: Administering Evaluations
Terminal Learning Objective
At the end of this topic, a student, given specific considerations for individual testing and elements of test security, will be able to administer and manage an assessment evaluation, so that bias is eliminated and federal, state, and local ordinances are followed.

Enabling Learning Objectives

1. Identify specific considerations for individual testing needs
   - Be responsive to individuals’ prescriptions for test taking
   - Generally predetermined or pre-identified

2. Determine test security
   - Before the test
   - During the test
   - After the test
   - Evaluate for electronic devices

3. Describe administration of the different types of tests

4. Determine conditions of test bias
   - A test is considered bias when members of different groups with the same ability level routinely scored differently on a test
   - Conditions indicating bias include age, cultural bias and gender
   - All instructors have an obligation to eliminate testing bias when ever it is identified
     - Gender reference - personal pronouns
     - Ethnic references are stereo typical
     - Cultural references that do not reflect the culture knowledge of a likely tested group
     - Regional jargon or dialect
     - Terminology or vocabulary in the test that is unfamiliar to the students taking the test
   - Equal Employment Opportunity Commission (EEOC) has the responsibility of investigating any bias on employment tests
     - Uniform Guidelines For Employee Selection (1978, EEOC, Title VII) is the law of the land
     - Primarily focuses on employee selection or promotional procedures

5. Evaluate the testing environment
   - Accessibility
   - Site overview
   - Safety
   - Bathrooms meet parameters
   - Appropriate lighting
   - Comfortable seating
   - Quiet surroundings
   - Regulated temperature
   - Being proactive to performance barriers

6. Determine scoring card and methods of scoring criteria
Techniques of Evaluation

- Composite scoring is used for criterion reference test
- Lesson or course outlines establish the point value
  - Activities
  - Assignments
  - Tests
- Scoring electronically is usually considered most accurate
- Scoring manually leaves room for errors

7. Determine grade reporting
   - Be cautious of grading bias
   - Scores must be recorded and reported in accordance with local jurisdiction or AHJ

8. Conduct evaluation feedback
   - Meet individually with the students to discuss
   - The test review and correct answers with the entire class
   - Reviewing correct and incorrect answers is becoming an industry standard in education and vocational arenas
   - Large audience response with an incorrect answer may require evaluation of the teaching or instructional material
   - May need to consider a test item analysis
   - Weaknesses identified in performance tests may identify the necessity for additional practice time

Discussion Questions
1. What are some considerations for conditions that will require individual testing needs?
2. What are some additional tests security needs?
3. What are some conditions of test bias that may occur because of these needs?
4. What additional elements may complicate testing environment?
5. What are some scoring card or methods of scoring criteria alternatives?

Activities
1. To be determined by the instructor
2. Allow 1 Hour for activity

Instructor Notes
1. Additional information: IFSTA: 230-239, JB: 34, 235

Topic 8-3: Test and Item Analysis

Terminal Learning Objective
At the end of this topic, a student, given concepts of test and item analysis, will be able to perform a test analysis, so that items can be confirmed remaining valid and reliable without bias.

Enabling Learning Objectives
1. Identify potential for bias (grading, testing)
2. Determine test result analysis
   - Most generally is conducted with computers software
   - Process that analyzes
Techniques of Evaluation

- Mean score
- Average score
- Highest score
- Lowest score
- Test items most frequently missed
- Test items most frequently passed

- Students will complete a test results analysis using a simple Excel chart in an activity
  - If 100% of the student audiences passing a question may be over taught or may not be discriminating enough to sort non-performing students from the performing students
  - If a large portion of the students I’m not passing the question, the topic may not have been covered thoroughly enough for the question is posed in a higher level training then what was taught
  - Professional educational developers report that 25% of the audience should miss a question that is considered discriminating (75% pass)

3. Determine test item analysis
   - Process that allows instructors to use systematic methods to assess the quality of individual test items
   - Three relatively simple measures of quality can’t be calculated when using a multiple-choice test item format
     - Difficulty index
     - Discrimination index
     - Distractor analysis
   - May need to consider removing port test items for recalculating scores
   - Review the test analysis, but just the test items, and give the test again
   - May need to teach the lesson session again for a retest

Discussion Questions
1. What are some potential buyers when evaluating test analysis for item analysis?
2. What can be considered different test result factors in an analysis?
3. What is the difference between a test item analysis and test analysis?

Activities
1. Activity have students build a test analysis (not item analysis)
2. Allow 30 minutes

Instructor Notes

Topic 8-4: Compliance with Laws Addressing Special Accommodations

Terminal Learning Objective
At the end of this topic, a student, given laws and ordinances, will be able to confirm compliance with requirements, so that federal, state and local laws are maintained without issues requiring further adaptation while utilizing resources as needed.
Enabling Learning Objectives

1. Identify how instructors are governed by three sources of law:
   - Federal law, which is made up of statutory laws
   - State law, which is established by each state’s legislature
   - Policies and procedures adopted by each individual fire agency

2. Identify Americans with Disabilities Act (ADA) /legal issues p. 28–48 J&B
   - Prohibits discrimination against a student
   - Instructors and training organizations must provide reasonable accommodation for students with documented disabilities
   - Once such disability for example: might be to give additional time for written exams
   - It is estimated that 3 to 13% of the general population of the United States have some type of learning disability
   - Most common types of neurological in origin and affect individual’s ability to perform such following actions:
     - Understand or think
     - Use the spoken or written word
     - Perform mathematical functions
     - Perform fine psychomotor skills
   - Responsibility to maintain confidentiality
   - Students are required by the US federal law to have documentation proving that they have a learning disability
   - If students do not have documentation, they will need to be diagnose and provide documentation before the reasonable expectation of appropriate accommodation

3. Define Americans with Disabilities Act three major categories:
   - Speech and language disorders
   - Academic skills disorders
   - Miscellaneous learning disabilities

4. Identify guidelines for individuals with G.I. Bill educational benefits
   - Many benefits are available to advance the education and skills of Veterans and Service members
   - Spouses and family members may also be eligible for education and training assistance
   - Fact, 25 percent of those benefitting from VAs education programs are non-Veterans
   - Some might find they're eligible for more than one benefit or that one program is more suited to certain education and training goals than another
   - Many education and training programs offer various education and training benefits or increased benefits to certain Reservists and Veterans and their survivors and dependents:
     - Reserve Educational Assistance Program
     - Veterans Educational Assistance Program
     - Survivors and Dependents Educational Assistance Program
     - National Testing Program
5. Identify state law (AB 422, Title V)
   - Confirm policies of AHJ
   - The bill requires many elements
   - Verification of disability and functional limitations may be confirmed based on local ordinances or AHJs
     - [http://www.leginfo.ca.gov/pub/99-00/bill/asm/ab_0401-0450/ab_422_bill_19990915_chaptered.html](http://www.leginfo.ca.gov/pub/99-00/bill/asm/ab_0401-0450/ab_422_bill_19990915_chaptered.html)

6. Describe required adaptations for administration
   - Timing
   - Environment
   - A student assistant that reads test material
   - Increasing the size of student handouts for easier readability

7. Identify resources available to instructors
   - HR
   - College student resources
   - County
   - Instructors need to know how to consult with appropriate resources on how to proceed when needs for reasonable accommodation are identified

8. Identify anti-discrimination policies

Discussion Questions
1. What is a brief synopsis of the Americans with Disabilities Act?
2. What are the three major categories ADA?
3. What are some Basic guidelines when dealing with individuals with the G.I. Bill educational benefits?
4. What are the implications of State Law, AB 422?
5. What resources are available to instructors when dealing with some of these topics?

Activities
1. To be determined by the instructor

Instructor Notes

Topic 8-5: Administering Course Evaluations

Terminal Learning Objective
At the end of this topic, a student, given components of a course evaluation and design elements of a course, will be able to develop an evaluation system and conduct an course evaluation, so that instructors, students, and materials involved in learning process are validated and deemed reliable.

Enabling Learning Objectives
1. Defined the basic components of an evaluation
   - To determine the effectiveness of the course
   - To determine the effectiveness of the instructors
Techniques of Evaluation

- Provides an assessment of the instructors performance, teaching methods, and training skills
  - To determine the accomplishments of the students who participate in the course
    - Provides feedback on the students knowledge and
    - Students skill level and
    - Assesses need for further study or further practice
  - To identify to course strengths
  - To identify the course weaknesses

2. Evaluation aspects of a course:
   - Evaluate the course outline or curriculum material
     - Confirm the curriculum goal
     - Identify courses or course content for the curriculum
     - Confirmed this sequence of the course content into a logical sequence
   - Time allotted for the course’s
   - Equipment used or needed
   - Instructor expectations
   - Student expectations
   - Instructional methods used
   - Learning environments used
   - Evaluation methods used
   - Feedback with the students
     - Pre-test
     - Post-test

3. Evaluation of the assessment instruments
   - Provides feedback on test validity
   - Provides feedback on test reliability
   - Provides results to analyze reasons for failure and determining areas to adjust and improve
   - Low scores could indicate one of the following:
     - Instructors did not teach to the objectives
     - Course was not suited to the level of the students
     - Evaluation instruments may not have been valid

4. Describe elements of a summative evaluation
   - Did the students meet learning objectives and course or curriculum goals?
   - Was training conducted as design and within the resources allocated?
   - Evaluate the students scores on written or performance test
   - Evaluate the students behaviors observed in the field
   - Evaluate feedback from the students and instructors
   - Evaluate feedback from field supervisors

5. Development direction after analyzing the course evaluation
   - Record and report if the evaluation of the course successfully met the course and curriculum goals
Techniques of Evaluation

- Determine whether the course delivery continues as is
- Determine if the course continues with necessary adjustments
- Determine if the course is to be discontinued
- Evaluate the pretest and posttest with an analysis

6. Describe the effectiveness of tools or electronic solutions
   - Did the material support the objectives?
   - Where the materials relevant for applicable to the job requirements?

7. Described detailed elements that may evaluate instructors performance
   - The Instructor's knowledge of the subject
   - Instructor's enthusiasm for the topic
   - Instructor's knowledge to assist mastering the content
   - Instructor's preparation
   - Instructor's organization
   - Instructor's capability to relate to or interact with the students
   - Instructor's response to answer students questions
   - May need to consider subject matter experts to sit in on the course to evaluate the instructors

8. Identify potential learning resource centers, assessment centers, testing centers, e-learning/testing, computer-based testing that could be utilized or evaluated for maximum benefit to the course goals

Discussion Questions
1. What are basic components of an evaluation?
2. What are the elements of course that should be evaluated?
3. What are elements of the assessment instruments that should be evaluated?
4. What aspects should be evaluated when discussing the instructor?
5. What aspect should be evaluated when discussing the course?

Activities
1. To be determined by the instructor

Instructor Notes
1. Topic 8-5: Administering Course Evaluations is different compared to Topic 8-1: Managing Evaluation Systems. Some material are similar in nature, try to prevent confusion with the students.
2. Additional information: IFSTA: 382, 386-389, JB: 262, 266

Topic 8-6: Reporting of Test Administration

Terminal Learning Objective
At the end of this topic, a student, given elements and mandates regarding privacy and accessibility to educational records, will be able to report results, so that established guidelines for reporting the results of administration of assessment evaluation is maintained.
Enabling Learning Objectives

1. Define privacy of records and reports
   - Records that must be confidential and include personnel files, individual training records, and medical files
   - And other personal information that must be safeguarded to ensure privacy includes:
     - Social Security numbers
     - Personnel files
     - Test scores
   - Family Educational Rights and Privacy Act (FERPA) also referred to as Buckley Amendment
     - Prohibits the release of this type of information
     - Restrictions can be different and variable depending on jurisdiction
     - AHJ restrictions apply
     - The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records
     - FERPA the law applies to all schools that receive funds under an applicable program of the U.S. Department of Education
     - FERPA may have implications if any training funds can be sourced to any federal funding, or passing of funding through state to local jurisdictions
     - Every AHJ has to obtain their specific legal counsel regarding FERPA
   - Open Records Act
     - Many jurisdictions exempt some information from the provisions of the open records act
     - These exemptions are limited
     - Have been interpreted very narrowly by courts

2. Identify State Fire Training guidelines
   - Governs all educational records under the same guidance that colleges follow
   - A court order must be produced in order to gain access for educational use or for investigations
   - At this time, State Fire Training does not administer or respond to written request authorizing the release of records to third parties

3. Identify college requirements or guidelines
   - Every college administers their respective students educational privacy
   - Students are generally given to free transmissions of their educational records, Otherwise fees are charged for release of educational information

4. Follow established guidelines for reporting the results of the administration of assessment evaluation

5. Describe retention and length of records and reports
   - Record retention depends on the federal, state, local laws, and AHJs depending on the specific type of record
Techniques of Evaluation

- Employment records may be retained for just a couple years
- Exposure reports and document to investment retained for the same or longer number of years following retirement or termination of the employee
- Instructors should consult AHJs human resources or legal departments for retention guidelines of all training records and any other types of records

Discussion Questions
1. Define records and reports are considered private?
2. Define records and reports that are considered within the guidelines of the freedom of information act?
3. What are The Family Education Rights and Privacy Act?

Activities
1. To be determined by the instructor

Instructor Notes
1. Additional information: IFSTA: 347, 348, 412, JB: 34, 360
## Time Table

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## Techniques of Evaluation

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### Course Totals

- **Total Lecture Time (LT)**: 18:30
- **Total Activity Time (AT)**: 10:30
- **Total Testing Time**: 03:00
- **Total Course Time**: 29:00
Group Dynamics and Problem Solving

Course Plan

Course Details

Certification: FSTEP: Instructional Development Series
CTS Guide: None
Description: This course is designed to develop leadership skills; group dynamics, problem-solving techniques, and interpersonal relations are utilized in staff meetings, brainstorming sessions, and conference meetings. Skills are developed for conducting formal public meetings, panel discussions, and forums.

Designed For: Personnel preparing for a college level fire instructor, SFT Certified Training Instructor position, or career development for teaching SFT Instructional Curriculum.

Prerequisites: Instructor I recommended
Instructor II recommended

Standard: Complete all group activities and formative tests. Pass all individual activities without omitting critical criteria as identified on activity sheet(s).
Complete all summative tests with a minimum score of 80%.

Hours:
Lecture: [20:30]
Activities: [8:30] [Instructor determined activities not included]
Testing: [3:00]

Hours (Total): [32:00]

Maximum Class Size: 25

Instructor Level: SFT Credentialed Instructor. The primary instructor should meet SFT Instructor III qualifications or higher. Alternatively, the primary instructor can meet Instructor II qualifications, but must also have completed an intensive FSTEP course in testing as well as an FSTEP course that surveys the areas of testing, audiovisual presentations, e-learning delivery and learning
management systems, and group dynamics. Assistant instructors (skills evaluators) should meet Instructor II qualifications or higher.

**Instructor/Student Ratio:** 1:25

**Restrictions:** None. Instructor must submit letter for approval of conditions outside the parameters of normal classroom instruction, e.g. class size exceeds 25, compressed course delivery, and/or approval from State Fire Training for distance learning format.

**SFT Designation:** FSTEP
Required Resources

Instructor Resources

To teach this course, instructors need:

- Small Group and Team Communications, 5th edition, 2011 by Thomas E. Harris, University of Alabama and John C. Sherblom, University of Maine, ©2011 Pearson, paper, 312pp
- Important points not already covered in the above texts are called out in bullet points below the enabling learning objective (ELO) in each topic.

Online Instructor Resources

- Textbook downloadable resources on publisher websites
- SFT Resources
  http://osfm.fire.ca.gov/training/resources
- Small Group and Team Communications, 5th edition

Student Resources

To participate in this course, students need textbooks, as indicated by the instructor:


Students should be encouraged and asked to supply:

- Their own laptop or tablet with presentation or other viewing hardware and/or software
- Other devices as needed for distance learning

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility, which may include:
- Writing board or paper easel chart
- Markers, erasers
- Amplification devices
- Projector and screen
- Laptop or tablet with presentation or other viewing software
- Access to a computer lab for some sessions
• Access to an outdoor facility for some sessions
• Equipment as needed for student-led demonstrations or psychomotor lessons such as appliances, extinguishers, hose, hand tools, ladders, power tools, protective equipment/clothing, rope, salvage equipment, simulation materials.
Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective
At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

Enabling Learning Objectives
1. Identify facility requirements
   - Restroom locations
   - Food locations
   - Smoking locations
   - Emergency procedures
2. Identify classroom requirements
   - Start and end times
   - Breaks
   - Electronic device policies
   - Special needs and accommodations
   - Other requirements as applicable
3. Review course syllabus
   - Course objectives
   - Calendar of events
   - Course requirements
   - Student evaluation process
   - Assignments
   - Activities
   - Required student resources
   - Class participation requirements

Discussion Questions
- What is a formative test? What is a summative test?

Activities
1. To be determined by the instructor.
2. Activity: Have students pair up with someone they do not know. For five minutes, interview each other (2 ½ minutes each). Be prepared to introduce the other student to the class. Allow 30 minutes.

Topic 1-2: Instructor Certification Process

Terminal Learning Objective
At the end of this topic, a student will be able to identify different levels in the Instructor certification track, the courses and requirements for Instructor I certification, and be able to describe the certification task book and testing process.
Enabling Learning Objectives

1. Identify the different levels of certification in the Instructor certification track
   - Instructor I
   - Instructor II
   - Instructor III

2. Identify the courses required for Instructor I
   - Instructional Methodology

2. Identify any other requirements for Instructor I

3. Describe the certification task book process
   - Complete all prerequisites and course work
   - Submit application and fees to request certification task book
   - Complete all job performance requirements included in the task book
   - Must have identified evaluator verify individual task completion via signature
   - Must have Fire Chief or authorized representative verify task book completion via signature
   - Must be employed by a California Fire Agency in the position prior to submitting completed task book to State Fire Training

4. Describe the certification testing process
   - Complete coursework
   - Schedule online certification test
   - Schedule skills evaluation test

Discussion Questions

1. How many levels are there in the Instructor certification track? What are they?
2. By completing three identified of the FSTEP classes, what does that qualify you to do?

Activities

1. To be determined by the instructor.

Topic 1-3: Definition of Duties

Terminal Learning Objective

At the end of this topic, a student, given the definitions of duty, will be able to define the role of the Instructor(s) with regard to program management, instructional development, instructional delivery, and evaluation and testing.

Enabling Learning Objectives

1. Describe program management
   - The management of basic resources and the records and reports essential to the instructional process

2. Describe instructional development
   - The review and adaptation of prepared instructional materials
   - The Instructor I should not alter the content or the lesson objectives in this process

3. Describe instructional delivery
   - The delivery of instructional sessions utilizing prepared course materials

4. Describe evaluation and testing
Group Dynamics and Problem Solving

- The administration and grading of student evaluation instruments
- Primarily deals with student evaluation; however, the Instructor I could be required to conduct program evaluations according to policies and procedures.

5. Describe Instructional classes included in the Fire Service Training and Education Program (FSTEP) that Instructors must complete to qualify for teaching Instructor Curriculum
   - The administration and grading of student evaluation instruments

Discussion Questions
1. What is the basic definition of the Instructor levels in State Fire Training?
2. What is the basis for the three core classes identified in FSTEP to qualify Instructors to teach the Level I through Level III curriculum?
3. What are the restrictions of an Instructors regarding testing?

Activities
1. To be determined by the instructor.

Unit 2: Biographical Sketch

Topic 2-1: Biographical Sketch

Terminal Learning Objective
At the end of this topic, a student, given the elements of the biographical sketch, will be able to develop a biographical sketch, so that the biographical sketch is presented in a logical manner with clarity and confidence.

Enabling Learning Objectives
1. Describe a biographical sketch or also known as biosketch
2. Identify the purpose of a biographical sketch
   - To inform the audience of a significant event
   - To informant audience about a small portion of a persons life
   - Unravels a story pertaining to a persons life for career generally given in a presentation or utilized as an employment assessment tool
3. Describe how a biographical sketch depicts one’s biography which may include:
   - An overview of one’s personal character
   - A brief overview one’s life
   - A brief overview of achievements
   - A brief overview of one’s career
4. Describe the elements of a biographical sketch
   - Gather information about yourself
   - Reflect on your life, achievements, what you want to emphasize
   - Start with an antidote and paint an instant portrait of yourself
   - Provide relevant information
   - Finish strong with a clarity and confidence
   - Revise and edit the work
Group Dynamics and Problem Solving

- Leave your readers something to think about

**Discussion Questions**
5. What is the purpose of a biographical sketch?
6. What does a biographical sketch detect about a person?
7. What are some basic elements of a biographical sketch?

**Activities**
1. To be determined by the instructor.
2. Allow 2 hours for Bio Sketch development and presentations.
3. Biographical Sketch Exercise Rating Form

**Instructor Notes**

**Unit 3: Interpersonal Communication**

**Topic 3-1: The Communication Process**

**Terminal Learning Objective**
At the end of this topic, a student, given interpersonal skills, elements of a traditional presentation system, and concepts of being fair and impartial, will be able to communicate demonstrating essential elements and facets with engaging people, students, or others in a learning environment or in a meeting environment, so that communications occur with minimal bias and impartiality.

**Enabling Learning Objectives**
1. Describe the necessity of instructors having strong interpersonal skills
   - Clarity
   - Sensitivity
   - Fairness and impartiality
2. Define the elements of clarity with the aspect of clearly explaining concepts
   - Systematic presentation of material
   - Instructional order or method (simple to complex)
   - Production order or method (the order of which things must be done)
3. Describe a traditional presentation delivery system
   - Tell them what you are going to tell them (Introduction / Overview)
   - Tell them (main content)
   - Tell them what you told them (summary)
4. Describe the process of an instructor having sensitivity
   - Ability to view the learning environment from the students’ perspective
   - Recognize barriers to learning and communication
5. Describe how instructors must be fair and impartial to all students
   - Open minded
   - Willing to hear (active listening)
   - Consider concepts
Group Dynamics and Problem Solving

- Discuss ideas
6. Describe the multiple facets of instruction that occurs in a classroom

Discussion Questions
1. Describe some strong interpersonal skills that an instructor or group leaders should have?
2. What are some elements of clarity what aspect to explaining concepts?
3. What is a traditional presentation delivery system? Are there additional examples?
4. Why should an instructor or group leader be fair and impartial?

Activities
1. To be determined by the instructor.

Instructor Notes

Topic 3-2: Evaluating Interpersonal Relations

Terminal Learning Objective
At the end of this topic, a student, given elements of casual language, principles of model communication, and interpersonal skills, will be able to formulate a communication model, that utilizes the aspects of the communication model and interpersonal skills, so that the student can effectively communicate and actively listen.

Enabling Learning Objectives
1. Define casual language
2. Describe classroom model of communication
   - Sender (instructor)
   - Message (the lesson)
   - Receiver (student)
   - Feedback to the sender (encoding and decoding)
   - Interference
     - Filters
     - Bias
3. Identify interpersonal skills
   - Places the success of the team above self-interest
   - Effectively works with others in order to accomplish the task or solve problems
   - Offers to help other members
   - Understands and follows chain-of-command
   - Is courteous and respectful of peers and supervisors
   - Does not undermine the team
   - Helps and supports the other team members

Discussion Questions
1. What are the elements of a classroom model of communication?
2. What are some essential interpersonal skills for communicator should have?

Activities
1. To be determined by the instructor.
Topic 3-3: Verbal Component

Terminal Learning Objective
At the end of this topic, a student, given the elements of verbal communication, interpretations of words, evaluating an audience with potential conflict utilizing cultural words, will be able to develop an effective communication skills for a multifaceted cross generational audience in an effective learning environment or meeting presentation, so that communication occurs without “paraverbal cues” in a multi-cultural audience.

Enabling Learning Objectives
1. Determine how words in a message account for seven (7%) percent of a message
2. Describe the power and weakness of words
3. Describe instructor’s importance of being aware of their audience (listeners)
4. Describe cultural concepts of words
5. Determine the effects of gender, cultural, ethnic, age, religion, political association, education, and regional background influence communications
6. Describe factors that influence communication sometimes referred as “paraverbal cues”
   • Volume of your speech
   • Language utilized
   • Tone a voice
   • Volume of speech
   • Speaking softly
   • A dominant tone
   • A supportive tone
7. Describe factors of the learning environment that has impact on communication

Discussion Questions
1. What percent of a message is the actual language or words account for?
2. What consideration should be given regarding the audience when communicating?
3. Define or describe cultural words for cultural concepts associated with communication.
4. What are “paraverbal” cues?

Activities
1. To be determined by the instructor.

Instructor Notes

Topic 3-4 Nonverbal Codes

Terminal Learning Objective
At the end of this topic, a student, given elements of nonverbal communication, importance of eye contact, influence of facial expressions and body gestures, will be able to develop effective communication skills, so that learning blocks are avoided, while managing
nonverbal factors of communication, to deliver a communication for a multifaceted cross generational audience or board meeting presentation.

**Enabling Learning Objectives**

1. Determine how nonverbal communication in a message account for ninety-three (93) percent of a message
   - Body language
   - Vocal tone and volume
   - Personal appearance
2. Describe the importance of eye contact
3. Describe the influence of facial expression
4. Identify the significance of gestures
   - Avoiding learning blocks
   - Aversives (Any condition or event that causes physical discomfort or mental discomfort)
5. Describe other nonverbal factors of communication such as posture, poise, vocal characteristics, touch
6. Determine the influence of proximity when interacting with students
7. Describe how nonverbal communication is difficult for one-self to identify
8. Describe the study of eye movement (eye-accessing cues) that a person displays during presentations
   - Visual remembered
   - Visual constructed
   - Auditory remembered
   - Auditory constructed
   - Auditory digital
   - Kinesthetic

**Discussion Questions**

1. What communication factor dominates the majority of communication?
2. Why is eye contact so significant when communicating?
3. What is an aversive?
4. What are some examples of Nonverbal communication that is often difficult to identify by the speaker?

**Activities**

1. To be determined by the instructor.

**Instructor Notes**


**Topic 3-5 Listening**

**Terminal Learning Objective**

At the end of this topic, a student, given elements of listening skills, components of listening, components of active listening, will be able to formulate effective listening skills, and utilize both passive and active listening processes, so that elements of passive listening,
tips for effective and improve communication, to better communicate the receiving message from a sender, to the receiver.

**Enabling Learning Objectives**

1. Determine how listening skills constitute 50 to 75 percent of class time
   - Active listening
   - Inactive listening
2. Describe listening components that an instructor should consider
   - Attendance
   - Understanding
   - Remembering
   - Evaluating
   - Responding
3. Define active listening process:
   - Hearing and understanding
   - Of the communication sent demonstrating that you are listening and have understood the message
   - Keep your ears wide open
   - Avoid answering before the question is complete
4. Define passive listening process:
   - Listening with your eyes and your senses without reacting to the message
   - Observe the students body language and facial expressions
5. Tips for effective and improved communication:
   - Restate the students question before answering the question
   - Have another instructor sit through your presentation and evaluate you
   - Utilize video to record your presentation for evaluation

**Discussion Questions**

1. What percentage of classroom time is committed to listening?
2. What are some glistening components that I instructed her should consider
3. What is an active listening process?
4. What are some basic tips for effective and improve communication?

**Activities**

1. Active Listening Exercise (Mandatory) listen message and repeat the message exercise
2. Research alternative “active listening tools or exercises” on internet for activities.

**Instructor Notes**


**Topic 3-6: Rating Errors (Grading Bias)**

**Terminal Learning Objective**

At the end of this topic, a student, given factors that influence for filter observations of a person’s performance, Reading bears and their influence, will be able to observe and rate a person’s performance, so that the student avoids the six most common rating errors.
Enabling Learning Objectives

1. Describe the factors that can influence or filter observations of a person’s performance
2. Describe the rating errors that can influence the evaluation of the performance of others
3. Describe how the rating errors described may influence rater evaluations.
   - This does not mean that they automatically will have some impact
   - Awareness of the types of rating errors which may occur is an important step in reducing their potential effects
4. Describe the six most common types of errors:
   - First Impression Effect
     - This error evidences itself when the person being rated does well at the beginning of a testing process, but then “poops out”
     - The rater observing this person may become so impressed with that early behavior that a high rating is given, even though the total behavior warranted a lower rating
     - Related to this rating error is the last impression or recency effect where behavior occurring at the end of the process, good or bad, is given undue weight by not taking into consideration the total behavior
   - Halo Effect
     - This error evidences itself in the tendency to allow a candidate's performance on one dimension to influence the rating on all the other dimensions, even when there is little evidence for such ratings on those other dimensions.
     - It is important that raters try to keep the dimensions as distant as possible. Some of the dimensions are closely related, and skill in one area often goes along with skill in another. Nevertheless, careful attention to the amount of actual behavior justifying a rating will help to avoid this type of rating
   - Leniency Effect
     - This error evidences itself in the tendency to be an “easy” rater. It is often less offensive to be generous than it is to make objective, but lower, ratings
     - Conversely, there is also a tendency, among a fewer number of raters, to be excessively and unjustifiably harsh.
     - The key is to focus attention on the behavior observed in the process
   - Central Tendency Effect
     - This error evidences itself in the predisposition to “play it safe” by avoiding the use of extreme ratings, even when they are called for and justified
     - Sometimes raters fail to assign the minimum or maximum on the assumption that no candidate could be that bad or good
     - It is very important to make fair distinctions among candidates, and the full range of scores should therefore be used
   - Contrast Effect
     - This error evidences itself when a particular candidates’ evaluation is influenced by the evaluation of the preceding candidate
Group Dynamics and Problem Solving

- Keep in mind that you are evaluating against specific criteria and not against another candidate
- The key is to focus on the actual amount and nature of the behavior observed
  - Similar To Me Effect
    - This error evidences itself when candidates remind you of your own approach to situations thereby resulting in higher ratings than are justified
    - The reverse situation can also occur, resulting in lower ratings than the actual behavior would dictate
    - It is important to remember that the rater is not the one being evaluated

Discussion Questions
1. What are some influences for filters that obscure an observation of a person’s performance?
2. What are examples of rating gears can influence the evaluation of the performance of a person?
3. Identify the most common types of errors.

Activities
1. To be determined by the instructor.

Instructor Notes

Unit 4: Concepts of Group Dynamics

Topic 4-1 Group Development

Terminal Learning Objective
At the end of this topic, a student, given group development processes, patterns of group development, and stages of the group organization, will be able to manage the phases of a developing group or audience, so that one can organize a group to perform more effectively and cohesively with effective team development concepts.

Enabling Learning Objectives
1. Describe the group development process learning - why and how small groups change over time
2. Identify patterns of change and continuity in groups over time
3. Identify aspects of a group that might be studied which include:
   - Quality of the output produced by a group
   - Type and frequency of its activities
   - Group cohesiveness
   - Existence of group conflict
4. Describe group change as regular movement through a series of "stages" or "phases" that groups may or may not go through during a group's history.
5. Identify Tuckman's stages of group development (Bruce Tuckman, 1963)
   - Storming
   - Forming
Group Dynamics and Problem Solving

- Norming
- Performing

6. Identify how these steps are necessary and inevitable in order for the team to:
   - Grow as a cohesive team
   - Face up to challenges
   - Tackle problems
   - Find solutions
   - Plan work
   - Deliver results

7. Describe the evolution of group dynamics adding a fifth stage
   - In 1977, Tuckman, jointly with Mary Ann Jensen, added a fifth stage called *adjourning*
   - This step involved the task of breaking up the team
   - Some texts referred this step as *Mourning*

8. Describe other models involving group development
   - Stage of Re-norming added by Timothy Biggs
   - White-Fairhurst TPR Model utilizing Transforming phase, Preforming phase and Reforming phase developed by Alasdair A. K. White and John Fairhurst

Discussion Questions
1. What is the group developed process for learning?
2. What are some pattern changes that can occur within the group overtime?
3. What are some anticipated phases four stages that a group will go through during their time working with each other?
4. Isn’t healthy for a group to go through these identified phases?

Activities
1. To be determined by the instructor.

Instructor Notes

Topic 4-2 Cross-Generational Communication and Marketing

Terminal Learning Objective
At the end of this topic, a student, given aspects or generalizations of the group dynamics, student diversity elements, and biases that develop in a learning environment, will be able to effectively manage communications while considering the value system of each member of an learning environment or group audience receiving a presentation, so that the values implanted into audience members are maintained with jeopardizing communication.

Enabling Learning Objectives
1. Describe generalizations or labeling of the generations of students that instructors may encounter in classrooms
   - Baby Boomers (usually mid 1940s to mid 1964-0s)
   - Generation-X (usually late 1960s to late 1970s)
   - Generation-Y (usually after Generation X / no consensus birth years)
Dotcomers
- Generation-Z or Generation Next (usually have taken classes online / have had computer access most of their academic life)
  - Learning based on quick and very visually oriented types of learning
  - May prefer self-study or directed study opportunities

Millenials

Nexters

2. Describe the impacts of student diversity in the classroom environment
3. Describe how biases can hinder the learning environment
4. Describe the influences and concepts of Dr. Morris Massey, Marketing Professor and Sociologist
   - “What You Are Is Were You Were When”
5. Describe the three major periods where our values are developed
   - The Imprint Period (up to age seven)
   - The Modeling Period (between the ages of eight and thirteen)
   - The Socialization Period (between the ages of thirteen and twenty-one)

Discussion Questions
1. What are the general labels that we place on our students in our classrooms?
2. How would Dr. Morris Massey’s concepts assist us as instructors when dealing with different students in our learning environment?
3. What are some impacts of student diversity in a classroom environment?
4. How can biases influence the learning environment?

Activities
1. Have students utilize their computers for a five-minute research on Dr. Morris Massey utilizing the local Internet access.
   - https://en.wikipedia.org/wiki/Morris_Massey
2. Have students compare and contrast themselves and how they would adapt for leading a discussion in small groups versus a traditional lecture presentation.

Instructor Notes

Unit 5: Discussion Groups

Topic 5-1: Leading Discussions

Terminal Learning Objective
At the end of this topic, a student, given discussion methods that occurred between the presenter and audience member, effective introduction of new concepts or ideas, and utilizing activities for group discussion, will formulate and guide whole group discussions while administering principles, so that elements of group discussion methods and interactive skills will effectively guide a group into conclusion.
Enabling Learning Objectives

1. Describe discussion methods that allow more interaction between instructors and students
2. Describe the difference between “talking to a group” and “talking with a group”
   - Instructor to student interaction
   - Student to student interaction
3. Describe the limitations of using the discussion method for introducing new concepts or ideas
4. Describe active learning and utilizing activities for group discussion
5. Describe the learning objectives of whole group discussions
   - Share information and knowledge
   - Apply theories and critical thinking
   - Express personal views and ideas
   - Collaborate and work as a team
   - Clarify attitudes, values, and beliefs
6. Describe whole group discussion methods
   - Guided discussion
   - Conference discussion
7. Describe how the more active student is in the learning process that the more effective and real the learning is
8. Describe the cone of learning which may include:
   - Verbal symbols
   - Visual symbols
   - Recordings, radio and still pictures
   - Video
   - Demonstrations
   - Dramatized experiences
   - Direct purposeful experiences

Discussion Questions

1. What are some discussion methods that loud improved interaction between instructors and students or group leaders and participants?
2. What are some limitations using the discussion method for introducing new concepts?
3. What is active learning?
4. What is a whole group discussion method?

Activities

1. To be determined by the instructor.

Instructor Notes


Topic 5-2: Creating Active Learning Environments
Group Dynamics and Problem Solving

Terminal Learning Objective
At the end of this topic, a student, given principles of active learning, effective classroom activities that foster critical thinking, and benefits of classroom discussion, will be able to conduct an effective learning environment, so that the learning environment is managed that is active and engaging for all members of the audience.

Enabling Learning Objectives
1. Describe principles of utilizing discussion as active learning
2. Describe techniques of utilizing classroom activities to engage students’ critical thinking with situational awareness or other related scenarios
3. Identify the benefits of classroom discussion
   • Fosters improved student understanding
   • Improves student communication skills
   • Improves cooperation within a group
   • Places the responsibility for learning in the hands of the student

Discussion Questions
1. What are some basic principles of utilizing discussion as an active learning process?
2. What is the advantage of utilizing classroom activities to engage critical thinking from your participants?
3. What are the benefits of classroom discussion?

Activities
1. To be determined by the instructor.
2. Survival on the Moon Exercise Allow 1 Hour

Instructor Notes

Topic 5-3: Activity Development

Terminal Learning Objective
At the end of this topic, a student, given learning objectives for presentation concepts, and presentation ideas for delivery, will be able to construct and deliver and effective communication, so that activities utilize convincing principles and concept which develop with a whole group discussion.

Enabling Learning Objectives
1. Describe activity development utilizing specific learning objectives or presentation concepts or ideas
2. Describe the purpose of a mandatory lesson activity or presentation
   • Students to master a skill
   • Reinforcement of key instructional concepts or objectives
   • Deliver a principal or presentation concept to convey an idea, concept or end result
3. Describe the elements of whole group discussion development
   • Define the purpose
   • Set goals
   • Establish ground rules
• Recommend questions

Discussion Questions
1. What is activity development?
2. What is the purpose of requiring mandatory lesson activity?
3. What are the elements of whole group discussion?

Activities
1. To be determined by the instructor.

Instructor Notes

Topic 5-4: Brainstorming

Terminal Learning Objective
At the end of this topic, a student, given elements of brainstorming, elements of the group approach, and processes of creative thinking, will be able to conduct a brainstorming exercise, so that one will manage the delivery of suggestions or ideas from all audience members in an open non-cohering environment.

Enabling Learning Objectives
1. Identify the utilization of brainstorming to generate as many ideas with the principle that there is no bad ideas
2. Describe the concept of group approach to evaluate the ideas and then decide which ones have the most merit
3. Describe how the students use creative thinking to propose a solution to a problem based on their knowledge and experience

Discussion Questions
1. What is the advantage of using brainstorming with group activities?
2. What is the disadvantage of using brainstorming with group activities?
3. During a brainstorming session, is this the time to prioritize or dismiss ideas or feedback comments?

Activities
1. To be determined by the instructor.

Instructor Notes

Topic 5-5: Discussion 66

Terminal Learning Objective
At the end of this topic, a student, given Discussion 66 techniques for soliciting feedback and ideas, concepts for group leaders to identify a large array of ideas from a group, multiple uses of adapting Discussion 66, will be able to manage Discussion 66 methods for soliciting a vast array of ideas and concepts for problem solving from all members of an audience or learning environment, so that members are actively engaged and participate in the group discussion or presentation.
Enabling Learning Objectives
1. Describe the Discussion 66 method for soliciting feedback and ideas
2. Describe the concept where group leaders utilize discussion techniques to identify all of the ideas of a group are brought out
3. Describe the steps for conducting a Discussion 66 Method
   - Organize the group into small groups
   - Each small group works on the same question concurrently
4. Identify the purposes of utilizing discussion 66
   - Get questions for a speaker or panel
   - Identify problems or issues
   - Compile a list of ideas or possible solutions personal involvement and thinking by members of a large group
5. Identify procedures for employing the Discussion 66 method:
   - Group leader presents a question to the entire assembly
   - The question of should be very concise, limited, and specific
   - The audience is divided into groups of six persons
   - Each group appoints recorder and/or spokesperson
   - Each group is to record as many responses to the question is they can think of in three (3) minutes
   - Recorder records all of the responses suggested
   - Each group has three (3) minutes to decide which one of the responses suggest it is most important and has to be presented by the group spokesperson to the audience
   - Test, a discussion that occurs in groups of six members for six minutes - Discussion 66
6. Describe the many uses for the Discussion 66 techniques which include:
   - Providing time so all members may participate
   - Making public the many facts known only to a few members of a small group
   - Provoking audience asked questions
   - Evaluated an experience shared by the entire group
   - Making nominations
   - Achieving other purposes dependent upon a quick canvas of the thinking of the large group

Discussion Questions
1. What is the Discussion 66 method?
2. What are the essential steps for conducting a Discussion 66 method?
3. What are the many methods for utilizing Discussion 66?

Activities
1. To be supplemented by the instructor.
2. Conducting a Discussion 66 Group Activity

Instructor Notes
2. Further research: Discussion 66 was originally developed by Don Phillips, past president of Hillsdale College in Michigan, and later outlined in detail by D. Keith Denton in his book *The Toolbox for the Mind*.


**Topic 5-6: Staff Meeting SFT**

**Terminal Learning Objective**

At the end of this topic, a student, given elements for planning a staff meeting, elements of an agenda, in the process of conducting the staff meeting, will be able to manage and run a staff meeting, so that inappropriate agenda is utilized, to communicate with participants and to conclude with a productive successful meeting.

**Enabling Learning Objectives**

1. Define what constitutes a staff meeting
   - A gathering of three or more persons
   - For the purpose of giving instruction and/or exchanging information or
   - For the purpose of discussing solving problems

2. Describe elements for planning a staff meeting
   - Meeting fundamentals
   - Conditions necessary for a meeting
   - Planning the meeting
   - Objectives of the meeting
   - Participants for the meeting
   - Agenda
   - Date and time of the meeting
   - Location of the meeting
   - Announcement

3. Describe the need for an agenda

4. Identify meeting time preferences

5. Describe meeting locations and influence of location selection

6. Describe “how” to conduct the meeting
   - Prepare the room
     - Have the room ready in time for the first arrival participant
     - Allow time to call for assistance if needed
     - Seating arrangement considerations
     - Lighting
     - Check audiovisual equipment
     - Ancillary equipment (easel charts/dry marker boards/etc.)
   - Open the meeting
   - During the meeting
     - Utilize excellent leadership techniques
     - Stick to the agenda
Maintain a productive climate
- Encourage and structure participation
- Ask good questions
- Provide constructive feedback
- Give or get clarification of vague statements
- Discourage generalizations
- Protect minority opinions
- Keep participants on the subject
- Reduce tensions
- Observe participants
- Provide necessary breaks
- Maintain professionalism and enthusiasm
- Maintain control of the meetings

- Close the meeting
  - To be productive, meetings must meet the following criteria:
    - Document how the meeting objectives were accomplished
    - Confirm that the time was used efficiently
    - Confirm if the participants were satisfied with the results

Discussion Questions
1. What constitutes a staff meeting?
2. What are some elements necessary for planting a staff meeting?
3. What is the significance of an agenda?
4. How can a meeting location influence the outcomes of a meeting?
5. What are some common elements to perform at the close of the meeting?

Activities
1. Conduct a simulated staff meeting or [SFT Text]
2. Activity 5-6: Conducting a Staff Meeting - Allow 2 Hours

Instructor Notes

Unit 6: Conference Leading

Topic 6-1: Group Interaction

Terminal Learning Objective
At the end of this topic, a student, given conference leading and group interaction techniques, will be able to conduct a group exercise, so that the audience members participate in “open” discussion while managing potential conflict into agreement while addressing concerns.

Enabling Learning Objectives
1. Identify Abilene Paradox and Group Think (Group Tank)
2. Define Abilene Paradox
• Abilene Paradox credited by Professor Jerry B. Harvey (1974)
• Sometimes called the crisis of agreement
• Inability to manage agreement, not necessarily conflict
3. Identify the elements of Abilene Paradox
• Organization members agree privately, as individuals, as to the nature of this situation or problem facing the organization
• Organization members agreed privately, as individuals, as to the steps that would be required to cope with this situation or problem they face
• Organization members fail to accurately communicate their desires and/or beliefs to one another
• In fact, they do just the opposite and thereby lead one another into misperceiving the collective reality
4. Identify the aspects and/or of the Abilene Paradox
• Invalid and inaccurate information, the organization members make collective decisions that lead them to take actions contrary to what they want to do
• Counterproductive actions taken by organization members may experience frustration, anger, irritation, and dissatisfaction with the organization
• Consequences can it include subgroups with trusted acquaintances and blaming others subgroups for the organizations dilemma
• If organization members do not deal with the generic issue, the inability this manage agreement cycle repeats itself with sometimes/often greater intensity
5. Explain the key aspect of the Abilene Paradox:
• The phenomenon is explained by social psychology theories of social conformity and social influence
• This suggest that human beings are often very averse to acting contrary to the trend of a group
6. Identify the elements of Group Think / Group Tank
• Group Think credited mostly by Professor Irving Janis, research psychologist from Yale University (1972)
7. Define Group Think
• Desire for harmony or conformity in the group
• Where the results are an irrational or dysfunctional decision-making outcome
• Group members try to minimize conflict and reach a consensus decision without critical evaluation of alternative viewpoints
• End result is suppressing dissenting viewpoints, and by isolating themselves from outside influences
8. Identify the elements of Group Think (symptoms)
• Type I: Overestimations of the group — its power and morality
  o Illusions of invulnerability creating excessive optimism and encouraging risk taking.
  o Unquestioned belief in the morality of the group, causing members to ignore the consequences of their actions.
• Type II: Closed-mindedness
  o Rationalizing warnings that might challenge the group's assumptions.
  o Stereotyping those who are opposed to the group as weak, evil, biased, spiteful, impotent, or stupid.
• Type III: Pressures toward uniformity
  o Self-censorship of ideas that deviate from the apparent group consensus.
  o Illusions of unanimity among group members, silence is viewed as agreement.
  o Direct pressure to conform placed on any member who questions the group, couched in terms of "disloyalty"
  o Mindguards— self-appointed members who shield the group from dissenting information.

9. Identify the aspects and/or Group Think
• Causes and effects of group think
• High group cohesiveness
  o De-individuation: group cohesiveness becomes more important than individual freedom of expression
• Structural faults
  o Insulation of the group
  o Lack of impartial leadership
  o Lack of norms requiring methodological procedures
  o Homogeneity of members' social backgrounds and ideology
• Situational context
  o Highly stressful external threats
  o Recent failures
  o Excessive difficulties on the decision-making task
  o Moral dilemmas

10. Identify comparisons as Abilene Paradox and Group Think often associated as the same

Discussion Questions
1. When one says “group interaction”, what are you thinking this terminology means?
2. How often do bad decisions get followed up on in your organization?
3. How often do you, or other colleagues waste valuable time and effort on projects that everyone knew was doomed from start?
4. Do you believe that such efforts will repeat itself again in your organization?

Activities
1. Optional exercise: Chart Work Activity
2. “Abilene Paradox” video exercise, Professor Jerry B. Harvey, Professor Emeritus at George Washington University. Allow: 1 hour

Instructor Notes
3. Abilene Paradox (condensed) https://www.youtube.com/watch?v=O73aRfL3xvw
4. Abilene Paradox by Jerry B. Harvey: https://www.youtube.com/watch?v=uFQ-ukyvAMk

Topic 6-2: Conference Leading

Terminal Learning Objective
At the end of this topic, a student, given concepts of conference discussion, facilitator techniques, and conference leading concepts, will be able to conduct key conference discussion, performing as a facilitator while avoiding an instructor orientation, so that one manages differences of opinion and leading the group into a formative concept.

Enabling Learning Objectives
1. Describe how a conference discussion is less controlled than a guided discussion
2. Describe how instructors are facilitators not teachers
3. Describe how the focus of conference leading is to have students understand a topic rather than learning that topic
4. Identify the instructor’s responsibility for this format:
   • Provide background information on the topic
   • State or restate problems, questions, or clarifying students comments
   • Control or eliminate irrelevant discussion, reconcile differences of opinion, and unite students

Discussion Questions
1. How is a conference discussion less controlled than a guided discussion?
2. Do instructors act as facilitators for teachers? Explain.
3. What are the basic responsibilities of an instructor or group leader during this conference leading process?

Activities
1. Optional exercise: Chart Work Activity

Instructor Notes

Topic 6-3 Leaderless Group

Terminal Learning Objective
At the end of this topic, a student, given a leaderless group exercise, will be able to observe and participate in a leaderless group exercise, so that participants will be able to observe or report about characteristics or variables that occurred during the exercise.

Enabling Learning Objectives
2. Describe two competing models of group leadership
   • Group leadership influence model
     ○ Assumes that leaders are more effective when they are active within the group
This activity level is positively associated with group productivity

- Leaderless group discussion model
  - Maintains that effective leadership is more docile and
  - That the group's overall leadership activity versus the activity of an individual leader is a better predictor of group productivity
  - Laboratory descriptive study suggests leaderless group discussion model provides a better understanding of the data

- Describe five (5) steps to a leaderless group exercise
  - Assign a simple task to the group. An old classic involved erecting a tent without instructions. It could include assembling, creating, building, writing or like the example above—shopping. Be creative
  - Set the stage by explaining all planning and activities will be up to the team.
  - Set conditions such as time limits and resources.
  - Observe, but don’t participate. Believe me, you’ll want to help, but the team will learn more without outside direction.
  - Review the results with the team. What was learned? How can the lessons be applied to the workplace?

3. Describe the dimensions that can be observed in a leaderless exercise
   - Problem Analysis
   - Oral Communications
   - Interpersonal Sensitivity
   - Composure and Control
   - Decisiveness

4. Describe the initial actions of those groups that exhibit the absence of formal leadership roles

5. Describe leaderless groups development with a leaderless group assignment
   - At least initially, in leaderless groups no individual has responsibility for making sure that the group is progressing toward the achievement of certain goals or actions

6. Describe personality roles or variables that were observed or personally experienced

Discussion Questions
1. Have the group to discuss what occurred during the leaderless group exercises.
2. How did the formality of selecting a leader come about?
3. Was everybody in agreement with a leader being selected?
4. How was the solution to the goal or action ultimately decided by the group?

Activities
1. Optional exercise: Chart Work Activity
2. Leaderless Group Activity to be determined by the instructor Allow 2 hours

Instructor Notes
2. Have the group to discuss what occurred during the leaderless group exercises

Topic 6-4: Nominal Group
Terminal Learning Objective
At the end of this topic, a student, given elements of an organizational decision making process and steps of a phenomenal group process, will be able to manage a group discussion while utilizing nominal group processes, so that an agenda based process is utilized summarizing group findings, and documenting most important considerations for reporting.

Enabling Learning Objectives
1. Describe how the nominal group process imitates an organizational decision making process
2. Describe the steps of the nominal group process:
   • Audience writes a list of pros and cons of the topic
   • Audience presents their list to the group
   • Correlate, examine, discuss, and rewrite comments presented
   • Have the audience select the top five considerations
   • The instructor or leader summarizes the findings
3. Describe the agenda-based process

Discussion Questions
1. What is a nominal group process?
2. What are the basic steps of a nominal group discussion?
3. What is an agenda based process?

Activities
1. Optional exercise: Chart Work Activity

Instructor Notes

Topic 6-5: Learning Diversity

Terminal Learning Objective
At the end of this topic, a student, given the elements of a students senses, individual learning perceptions, elements of learning at one’s pace, will be able to manage a learning environment or presentation, so that learning styles and teaching strategies of individual learning perceptions by implementing teaching strategies to manage effective learning styles.

Enabling Learning Objectives
1. Define learning styles
2. Describe the senses that students use in a learning environment
   • Site
   • Hearing
   • Touch
3. Describe the students individual learning perceptions
   • How they perceive information
   • How they remember information
   • How they think about information
Group Dynamics and Problem Solving

- How they solve are
4. Identify the many ways a student learns at their own pace
5. Describe how an instructor considers these different learning styles for presentation skills and techniques
   - Teaching methods
   - Individual learning activities
   - Group activities
6. Describe how instructor may use a variety of teaching strategies that could be considered to develop more effective learning styles

Discussion Questions
1. What are some learning styles one should observe?
7. What are the basic senses that we use in the learning environment?
8. What are individual learning perceptions that can be displayed by students?
9. What is it basic common obstacle to consider from every single student?

Activities
1. To be determined by the instructor.

Instructor Notes
## Time Table

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<th>Segment</th>
<th>Lecture Time</th>
<th>Activity Time</th>
<th>Total Unit Time</th>
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## Unit 4: Concepts of Group Dynamics

### Topic 4-1: Group Development
- **Lecture:** 1:00
- **Activity:** Instructor determined

### Topic 4-2: Cross-Generational Communication and Marketing
- **Lecture:** 1:00
- **Activity:** Instructor determined

**Unit 4 Totals:** 2:00 0:00 2:00

## Unit 5: Discussion Groups

### Topic 5-1: Leading Discussions
- **Lecture:** 1:00
- **Activity:** Instructor determined

### Topic 5-2: Creating Active Learning Environments
- **Lecture:** 1:00
- **Activity:** Survival on the Moon Exercise

### Topic 5-3: Activity Development
- **Lecture:** 1:00
- **Activity:** Instructor determined

### Topic 5-4: Brainstorming
- **Lecture:** 1:00
- **Activity:** Instructor determined

### Topic 5-5: Discussions 66
- **Lecture:** 1:00
- **Activity:** Required Activity

### Topic 5-6: Staff Meeting
- **Lecture:** 1:00
- **Activity:** Required Activity

**Unit 5 Totals:** 6:00 5:00 10:00

## Unit 6: Conference Leading

### Topic 6-1: Group Interaction
- **Lecture:** 1:00
- **Activity:** Abilene Paradox

### Topic 6-2: Conference Leading
- **Lecture:** 00:30
- **Activity:** Instructor determined

### Topic 6-3: Leaderless Group
## Group Dynamics and Problem Solving

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<th>Lecture Time</th>
<th>Activity Time</th>
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**Lecture, Activity, and Unit Totals:**  
- Lecture Time (LT): 20:30  
- Activity Time (AT): 8:30  
- Total Course Time: 32:00

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Course Totals

- Total Lecture Time (LT): 20:30
- Total Activity Time (AT): 8:30
- Total Testing Time: 3:00
- **Total Course Time**: 32:00
Employing AudioVisual Aids

Instructional Development Series

Employing AudioVisual Aids

Course Plan

Course Details

Certification: FSTEP: Instructional Development Series

CTS Guide: None

Description: This course covers the principles and selection of media in the instructional process, employment of basic and advanced forms of instructional media, use of computers in the instructional process, and individualized instruction programs. Teaching demonstrations are required of all participants.

Designed For: Personnel preparing for a college level fire instructor, SFT Certified Training Instructor position, or career development for teaching SFT Instructional Curriculum.

Prerequisites: Instructor I recommended

Instructor II recommended

Standard: Complete all group activities and formative tests. Pass all individual activities without omitting critical criteria as identified on activity sheet(s).

Complete all summative tests with a minimum score of 80%.

Hours:

Lecture: [20:30]

Activities: [15:30]

Testing: [3:00]

Hours (Total): [39:00]

Maximum Class Size: 25

Instructor Level: SFT Credentialed Instructor. The primary instructor should meet SFT Instructor II qualifications or higher. Alternatively, the primary instructor must also have completed an intensive FSTEP course in testing as well as an FSTEP course that surveys the areas of testing, audiovisual presentations, e-learning

[Month Year]
delivery and learning management systems, and group dynamics. Assistant
instructors (skills evaluators) should meet Instructor II qualifications or higher.

**Instructor/Student Ratio:** 1:25

**Restrictions:** None. Instructor must submit letter for approval of conditions outside the
parameters of normal classroom instruction, e.g. class size exceeds 25,
compressed course delivery, and/or approval from State Fire Training for
distance learning format.

**SFT Designation:** FSTEP
Required Resources

Instructor Resources

To teach this course, instructors need:

- Important points not already covered in the above texts are called out in bullet points below the enabling learning objective (ELO) in each topic.

Online Instructor Resources

- Textbook downloadable resources on publisher websites
- SFT Resources
  [http://osfm.fire.ca.gov/training/resources](http://osfm.fire.ca.gov/training/resources)

Student Resources

To participate in this course, students need textbooks, as indicated by the instructor:


Students should be encouraged and asked to supply:

- Their own laptop or tablet with presentation or other viewing hardware and/or software
- Other devices as needed for distance learning

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility, which may include:
  - Writing board or paper easel chart
  - Markers, erasers
  - Amplification devices
  - Projector and screen
  - Laptop or tablet with presentation or other viewing software
  - Access to a computer lab for some sessions
  - Access to an outdoor facility for some sessions
  - Equipment as needed for student-led demonstrations or psychomotor lessons such as appliances, extinguishers, hose, hand tools, ladders, power tools, protective equipment/clothing, rope, salvage equipment, simulation materials.
Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective
At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

Enabling Learning Objectives
1. Identify facility requirements
   - Restroom locations
   - Food locations
   - Smoking locations
   - Emergency procedures
2. Identify classroom requirements
   - Start and end times
   - Breaks
   - Electronic device policies
   - Special needs and accommodations
   - Other requirements as applicable
3. Review course syllabus
   - Course objectives
   - Calendar of events
   - Course requirements
   - Student evaluation process
   - Assignments
   - Activities
   - Required student resources
   - Class participation requirements

Discussion Questions
1. What is a formative test? What is a summative test?

Activities
2. To be determined by the instructor.
3. Activity: Have students pair up with someone they do not know. For five minutes, interview each other (2 ½ minutes each). Be prepared to introduce the other student to the class. Allow 30 minutes.

Topic 1-2: Instructor Certification Process

Terminal Learning Objective
At the end of this topic, a student will be able to identify different levels in the Instructor certification track, the courses and requirements for Instructor I certification, and be able to describe the certification task book and testing process.
Enabling Learning Objectives

1. Identify the different levels of certification in the Instructor certification track
   - Instructor I
   - Instructor II
   - Instructor III

2. Identify the courses required for Instructor I
   - Instructional Methodology

3. Identify any other requirements for Instructor I

3. Describe the certification task book process
   - Complete all prerequisites and course work
   - Submit application and fees to request certification task book
   - Complete all job performance requirements included in the task book
   - Must have identified evaluator verify individual task completion via signature
   - Must have Fire Chief or authorized representative verify task book completion via signature
   - Must be employed by a California Fire Agency in the position prior to submitting completed task book to State Fire Training

4. Describe the certification testing process
   - Complete coursework
   - Schedule online certification test
   - Schedule skills evaluation test

Discussion Questions

1. How many levels are there in the Instructor certification track? What are they?

2. By completing three identified of the FSTEP classes, what does that qualify you to do?

Activities

1. To be determined by the instructor.

Topic 1-3: Definition of Duties

Terminal Learning Objective
At the end of this topic, a student, given the definitions of duty, will be able to define the role of the Instructor(s) with regard to program management, instructional development, instructional delivery, and evaluation and testing.

Enabling Learning Objectives

1. Describe program management
   - The management of basic resources and the records and reports essential to the instructional process

2. Describe instructional development
   - The review and adaptation of prepared instructional materials
   - The Instructor I should not alter the content or the lesson objectives in this process

3. Describe instructional delivery
   - The delivery of instructional sessions utilizing prepared course materials

4. Describe evaluation and testing
Employing AudioVisual Aids

- The administration and grading of student evaluation instruments
- Primarily deals with student evaluation; however, the Instructor I could be required to conduct program evaluations according to policies and procedures.

5. Describe Instructional classes included in the Fire Service Training and Education Program (FSTEP) that Instructors must complete to qualify for teaching Instructor Curriculum
- The administration and grading of student evaluation instruments

Discussion Questions
1. What are the basic definitions of the Instructor levels in State Fire Training?
2. What is the basis for the three core classes identified in FSTEP to qualify Instructors to teach the Level I through Level III curriculum?
3. What are the restrictions of an Instructors regarding testing?

Activities
1. To be determined by the instructor.

Unit 2: History of AudioVisual Development and Education

Topic 2-1: History of AudioVisual and Educational Development

Terminal Learning Objective
At the end of this topic, a student, given the evolution of historical educational working with audiovisual material, will be able to describe and define the utilization of audiovisual material into the educational field, so that the student can determine the significance of audiovisual materials with educational development.

Enabling Learning Objectives
1. Describe the introduction of historical audiovisual into educational use
   - Started around the 1930s, at this time it provided a revolutionary way for people to communicate, not just verbally, but visually or both at the same time
   - Survey performed 1933, 52% of American schools were using visual films and 3% were using sound films according to the National Education Association (NEA)
   - AV development gain momentum after World War II
     - This was a result of first-hand experience of rapid, massive training through the use of motion pictures and other AV media
2. Describe the transition of audiovisual in the educational system
   - Baby boomers, entering the school, identified the need for technological and pedagogical support
     - In 1947, the Department of Visual Instruction (DVI) of NEA in the United States changed its name to the Department of Audiovisual Instruction (DAVI), which developed into today’s Association for Educational Communications and Technology (AECT)
3. Describe the mission of DAVI
   - The necessity for teaching more and more without increasing the class period, school day, or graduation age;
Employing AudioVisual Aids

- the futility of trying to provide meaningful learning experiences without showing that which cannot be adequately expressed or understood thru words alone / the tragic neglect of the paramount responsibility for building better citizens of the nation and of the world by instilling desirable attitudes and appreciations thru the use of dramatic, emotionally derived learning
- these are some of the vital problems, which can be solved best, if not only, thru the use of audio-visual materials. (“AECT History.” 2010)

4. Identify the reliance of utilizing audiovisual in our learning environments
- Interesting to note, that AV was viewed as the best, or the only solution to “teaching more” and providing “meaningful learning experience”

5. Identify how the Integration of AV in the field of education was made possible by the concentrations of many people:
- Thomas Edison, 1922: inventor of photograph and motion pictures believe that quote motion picture is destined to revolutionize our educational system in that in a few years it will supplant largely, if not entirely, that use textbooks”
- Edgar Dale, 1946: “Cone of Experience” was a tool for media selection from concrete teaching techniques at the bottom of the cone to the most abstract techniques at the top printed in his text book, “AudioVisual Methods and Teaching”
- James Finn, 1963: president of DAV I at the time, defined “AudioVisual Communication” in his article “The Changing Role of the Audiovisual Process And Education: A Definition and a Glossary of Related Terms” identifying that “Audiovisual communication is that branch of educational theory and practice concerned primarily with the design and use of messages which control the learning process”

6. Describe the discourse of both Finn and Dale
- Both agreed that it is not the medium that controls the efficiency of communication, but appropriate media, or a combination of medium needs to suit particular user and content

7. Describe how society with or without the fire service is happening at an ever-increasing speed.
- “Life-long-learning is quickly becoming a need instead of something that was nice to do”. Tom Forster, Fire Instructor

Discussion Questions
1. What year did are audiovisual equipment historically make a mark in the educational arena?
2. What was the role of Department of Audiovisual Instruction (DAVI)?
3. Describe the reliance of utilizing audiovisual in our learning environments?

Activities
1. To be determined by the instructor

Instructor Notes
1. Involve the students with the discussion regarding the significance of interacting with each other and audiovisual materials in a learning environment.
**Employing AudioVisual Aids**

**Topic 2-2: Historical Media**

**Terminal Learning Objective**
At the end of this topic, a student, given examples of historical media, will be able to describe the evolution of training aids, so that audiovisual equipment used in classrooms is reviewed and becomes a basis for expanding in learning environments.

**Enabling Learning Objectives**
1. Identify typical training aids that the student audience has been instructed with
   - Flannel boards
   - Chalk Boards
   - Film Cameras
   - Slide and Overhead Projectors
   - Video Tapes (VHS, Beta)
2. Describe the transition to current media formats
   - Negative film
   - Positive film
   - Analog
   - Digital

**Discussion Questions**
1. What are some AV materials used to influence your learning, but which are no longer in use?
2. How has the evolution of media affected student learning?
3. What challenges do changing media create for instructors?

**Activities**
1. To be determined by the instructor

**Instructor Notes**
1. It identifies outdated training aids that the instructor may encounter.
2. This topic can be helpful in pulling together the cross-generational classroom. The media discussed should be based on the individuals in the classroom. It is meant to address relatively recent media (1980s) as opposed to older training aids.

**Unit 3: Legal Considerations**

**Topic 3-1: Legal Concerns in Instructional Media Usage**

**Terminal Learning Objective**
At the end of this topic, a student, given a fair-use scenario, will be able to apply current copyright laws, so that all federal, state and local laws are followed with consideration for media use, so that students remain in compliance with principles of the “fair use” doctrine.

**Enabling Learning Objectives**
1. Identify current copyright law and how it applies to educational instruction
   - “Original works of authorship”
   - Fair use
Employing AudioVisual Aids

- Ownership and intellectual property
- Public domain
- Obtaining permissions

2. Identify the four factors of fair use
   - Purpose and character of use
   - Nature of copyrighted work
   - Amount of work taken
   - Effect upon the potential market

3. What are the requirements of Copyright
   - Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.

4. Describe the importance of having an electronic use policy
   - Agency or Department
   - Classroom use
   - Restrictions

5. Describe applicable Local, State or Federal Laws
   - How long copyright protection endures
     - Work originally created on or after January 1, 1978 (fixed in a tangible form for the first time) is automatically protected from the moment of its creation and is ordinarily given a term of enduring for author’s life plus an additional 70 years after the author’s death.
     - In the case of a “joint work prepared by two or more authors”, the term last for 70 years after the last surviving author’s death
   - Fonts and Font size / Use of serif or sanserif fonts
   - Reasonable use recording (Employees or students with prescription),
   - Alternative Methods and Formats
   - Adapting AV to different learning styles
   - Form of protection provided by the laws of the United States
     - Title 17 of the U.S. Code
     - Code of Federal Regulations Title 37, Chapter II
     - Compendium of U.S. Copyright Office Practices
     - Americans with Disabilities Act (Accommodations)
   - Transfer of copyright
   - International copyright
   - Copyright registration
     - Poor-person’s copyright

Discussion Questions
1. How have you seen instructors or coworkers use emerging technologies to their advantage?
Activities
1. Instructor should create an activity directing students to apply copyright law.

Instructor Notes
1. Instructor should refer to www.copyright.gov.
2. Instructor should refer to www.creativecommons.org.

Topic 3-2: Eliminating Bias in Instructional Materials

Terminal Learning Objective
At the end of this topic, a student, given a diverse audience, will be able to eliminate bias in instructional materials, so that all bias is eliminated from audiovisual presentations.

Enabling Learning Objectives
1. Identify bias and sources of bias in instructional materials
   - Gender
   - Race
   - Cultural stereotypes
   - Regional jargon
   - Other considerations
2. Describe methods for eliminating bias

Discussion Questions
1. What is bias?
2. What are some examples of regional jargon? When might this be problematic?

Activities
1. To be determined by the instructor.

Instructor Notes
1. Instructors should be prepared to give example of regional jargon.

Topic 3-3: Security and Access of Electronic Data

Terminal Learning Objective
At the end of this topic, a student, given examples of data storage and potential electronic issues, will describe methods used to secure electronic data and the responsibility to respond to public information requests, so that access to storage systems and data access can be completed in compliance with federal, state laws and within guidelines of the AHJ.

Enabling Learning Objectives
1. Describe virus protection
2. Describe password protection
3. Describe data encryption
4. Describe methods for backing up information/record keeping
5. Describe the lifespans of various data storage methods
6. Describe the requirements of data archiving, requisition or public access
   - Public information requests
     - Your request must be in writing to the governmental entity you believe maintains the documents
Employing AudioVisual Aids

- Only written requests trigger a governmental body's obligations under the Public Information Act
- Your request should be for documents or other information that is already in existence
  - Legal aspects
  - Time limits
  - Document retention
  - Life span
    - Life span of document before being destroyed
    - Restrictions of documents that can not be destroyed
    - Implications to training documents, training data, training records, reference materials
    - What is the standard or reference of your performance and training
- Public records are broadly defined to include "any writing containing information relating to the conduct of a public's business prepared, owned, used or retained by any state or local agency regardless of physical form or characteristic
- California Attorney General, another court has stated:
  - This definition is intended to cover every conceivable kind of record that is involved in the governmental process and will pertain to any new form of record-keeping instrument as it is developed. Only purely personal information unrelated to 'the conduct of the public's business' could be considered exempt from this definition, i.e., the shopping list phoned from home, the letter to a public officer from a friend which is totally void of reference to governmental activities

Discussion Questions
1. What are some concerns associated with portable data storage?
2. What are some examples of threats to your electronic media?

Activities
1. To be determined by the instructor.

Instructor Notes
1. [Insert information cadre feels must be communicated to the instructor]

Unit 4: Utilization of Instructional Aids

Topic 4-1: Why Use AudioVisual Aids

Terminal Learning Objective
At the end of this topic, a student, given the importance of audiovisuals working with audiences or students, will be able to determine benefits for the individual student or audience as a groups, so that audiovisual materials can be selected appropriately and with priority for maximum benefit.

Enabling Learning Objectives
1. Describe how students learn through their senses
Employing AudioVisual Aids

1. 1% of what we learn is through taste
2. 1.5% of what we learn is through touching
3. 3.5% is through smelling
4. 11% is through hearing
5. 83% of what we learn is through sight

2. Describe an Old Chinese Proverb
   • “Tell me and I’ll forget; show me and I may remember; involve me and I’ll understand”

3. Describe benefits of both the audience and presenter by using VisualAids
   • Focusing your audiences attention
   • Controlling what you reveal to discuss point by point
   • Being more persuasive
   • Gaining your audience’s agreement a larger percentage of the time
   • Presenting concepts in less time while seeming wiser because you do
   • Appearing to be more competent
   • Looking better prepared
   • Being forced to simplify and prepare ahead of time
   • Alleviating the constant attention on you as the presenter
   • Getting a chance to think and “breathe”
   • Staying on track
   • Having a place to write notes
   • Ensuring all information is covered

4. Describe benefits of student using VisualAids
   • Retaining more of the discussion or presentation
   • Understanding concepts faster
   • Being more stimulated and entertained
   • Enjoying a shorter decision making process
   • Feeling more important and valued
   • Being more willing to participate
   • Spending less time in courses or meetings

Discussion Questions
1. How do students learn utilizing their senses??
2. What are the benefits using audiovisual materials by the presenter or instructor?
3. What are the benefits of students by using audiovisual materials during a learning session?

Activities
1. To be determined by the instructor
2. Allow 8 Hours for student teaching demonstrations

Instructor Notes
1. Discuss the teaching demonstrations and the importance of developing and utilizing audiovisual instruments during their presentation.
Topic 4-2: Classes of Instructional Aids:

Terminal Learning Objective
At the end of this topic, a student, given non-projected and projected instructional aids, will be able to identify the advantages and disadvantages associated with various instructional aids, so that classes of audiovisual types can be identified and appropriately utilized for particular learning environments.

Enabling Learning Objectives
1. Major classes of audiovisual instruments
   - Printed (ancillary)
   - Non-projected
   - Projected
2. Describe printed or ancillary components
   - Student manuals
   - Student handouts
   - Activity Sheets
   - Assignment sheets
   - Skill sheets
   - Information sheets
   - Work sheets
   - Study sheets
3. Describe non-projected instructional aids
   - Easel charts / Charting
   - Mock ups and models
   - Cutaways
   - Boards (chalk/dry-erase)
   - Props or Simulation Props
     - Pump simulators
     - Live fire simulators (propane simulators)
     - Simulator trailers
     - Roof simulators
     - Sand table (CalFire Academy – Ione)
4. Describe projected instructional aids
   - Simulators (two dimensional / 3 dimensional)
     - Fire
     - Environmental simulators
     - Driving
   - Software options
     - Electronic slide presentations
     - E-books
     - Publishing software
   - Videos and photos
Employing AudioVisual Aids

- Virtual reality
  - Utilize your cell phone (smartphone)
- Smartboards
- Visual presenters

Discussion Questions
1. What are some ways to make the learning experience more realistic?
2. What factors should be considered when selecting a type of instructional aid?
3. Under what circumstances could an instructional aid be distracting?
4. Can there be a combination of one or more classes of audiovisual tools?

Activities
1. To be determined by the instructor.

Instructor Notes
1. Brainstorm with the students the major categories for classes of audiovisual instruments.

Topic 4-3: Development and Design Effective Instructional Materials

Terminal Learning Objective
At the end of this topic, a student, given a lesson plan and instructional aid development concepts, will be able to design and develop effective instructional aids, so that the objectives of a lesson plan and transition with audiovisual materials occurs to support terminal and learning objectives.

Enabling Learning Objectives
1. Define a scoring system to evaluate instructional aids
2. Describe considerations for each phase of instructional aid development which is similar to video development
   - Preproduction and storyboarding
   - Production
   - Postproduction
3. Describe design principles for instructional aids that support learning objectives
4. Describe effective transition techniques within and between instructional aids
5. Incorporate best practices for instructional aid development
6. Describe guidelines for media development and design
   - Design balance
   - Kill principal
   - Font selection
   - Rule of thirds
   - Color selection / color communication
   - Graphic placement
   - Visual cues
   - Resources
   - Reminder: Legal considerations
Employing AudioVisual Aids

- Have an evaluator or non-topic person review the developed instructional materials for:
  - Accuracy
  - Spelling
  - Simplicity
  - Jargon
  - Relevancy
  - Utilize the score sheet for the scoring criteria

Discussion Questions
1. What are some criteria for creating effective instructional aids?
2. How do your chosen instructional aids support your instructional objectives?

Activities
1. Students must create a minimum of two effective instructional aids to be presented in their student teaching demonstrations.
2. Activity for development of instructional materials should not exceed 3 hours

Instructor Notes
1. Instructor must develop a rating system with the students to evaluate their instructional aids.
2. The instructor must ask students to bring a lesson plan, preparing for a demonstration using instructional aids that the students will create in class.
3. The demonstration must be on the effective development and design of an instructional aid, to be approved by the instructor.
4. The instructor should cover the production process for the instructional aids as well as being incorporated in photography and videography.

Topic 4-4: Development and Design Effective Electronic Presentation Materials

Terminal Learning Objective
At the end of this topic, a student, given a lesson plan and instructional aid development tools, will be able to design and develop effective electronic instructional aids utilizing PowerPoint or KeyNote, so that audiovisual design concepts are followed reducing confusion with students and clarifying lesson objectives.

Enabling Learning Objectives
1. Define a scoring system to evaluate instructional aids
2. Describe software systems for developing electronic presentations
   - PowerPoint (Microsoft)
   - Keynote (Apple)
   - Multiple electronic presentation software(s) available
3. Describe considerations for each phase of instructional aid development which is similar to video development
   - Preproduction and storyboarding
   - Production
   - Postproduction
Employing AudioVisual Aids

4. Describe design principles for electronic instructional aids that support learning objectives
5. Describe effective transition techniques within and between instructional aids
6. Incorporate best practices for instructional aid development
7. Describe guidelines for media development and design
   • Design balance
   • Kill principal
   • Font selection
   • Rule of thirds
   • Color selection / color communication
   • Graphic placement
   • Visual cues
   • Resources
   • Reminder: Legal considerations
   • Have an evaluator or non-topic person review the developed instructional materials for:
     o Accuracy
     o Spelling
     o Simplicity
     o Jargon
     o Relevancy
     o Utilize the score sheet for the scoring criteria

Discussion Questions
1. What are some criteria for creating effective electronic instructional aids?
2. How do your chosen instructional aids support your instructional objectives?

Activities
1. Students must create an electronic presentation to be presented in their student teaching demonstrations.
2. Activity for development of instructional materials should not exceed 3 hours

Instructor Notes
1. Instructor must develop a rating system with the students to evaluate their instructional aids.
2. The instructor must ask students to bring a lesson plan, preparing for a demonstration using instructional aids that the students will create in class.
3. The demonstration must be on the effective development and design of an instructional aid, to be approved by the instructor.
4. The instructor should cover the production process for the instructional aids as well as being incorporated in photography and videography.

Topic 4-5: Effective Use of AudioVisual Equipment
Employing AudioVisual Aids

Terminal Learning Objective
At the end of this topic, a student, given media selection concepts, transition with media formats and basic maintenance concepts of equipment selected, will be able to deliver the presentation concepts without confusion, so that multiple audiovisual materials can be adapted to diverse learning audience without bias and quickly adapting to alternate media formats if unable to quickly bring equipment back into service.

Enabling Learning Objectives
1. Describe the process of matching media selection with terminal learning objectives, enabling objects, course outcomes or course objectives
   - Select media to deliver, reinforce and support the enabling learning objectives
   - Student needs
   - Media should clarify learning points
   - Media should reduce instructional time, otherwise needed, if only verbal explanation is used for presenting instructional content
2. Describe the necessity of confirming relevancy with:
   - Objectives
   - Accuracy
   - Appropriate use of media
3. Describe the transition with current media formats
4. Describe how media content influences instructional time management
5. Describe the necessity to match media content with diverse learning styles
6. Identify utilizing different media formats for selected audience types
   - The size of the audience
   - The need for audience participation
     - Consider presentation
     - Room size
     - Arrangement
     - Lighting
     - Acoustics
     - Climate
     - Safety
7. Describes the sharing and packaging of electronic audiovisual materials
   - Archiving
   - iCloud services
   - Moving content with hardware tools
   - Moving content without hardware tools
8. Describe the process of transitioning between different media formats during instructional delivery
9. Describe the care and maintenance of AudioVisual Equipment/Materials
   - Follow vendor’s manuals / owner’s manual
   - Consult vendor services / warranties
   - Repair services
Employing AudioVisual Aids

Discussion Questions
1. What is the one most important element when considering the selection of audiovisual materials or media to be used in the learning session?
2. The sky the necessity relevancy.
3. What is considered when working with the transition of media formats?
4. What are the considerations we’re packaging and sharing audiovisual resources?
5. What is the single most important resource when discussing maintenance of audiovisual equipment?

Activities
1. To be determined by the instructor

Instructor Notes
1. Have students discuss types of audiovisual equipment in their jurisdictions.

Topic 4-6: Developing Accessible Instructional Aids and Alternate Media

Terminal Learning Objective
At the end of this topic, a student, given methods for developing alternate media and instructional aids, will be able to develop accessible instructional aids and alternate media, so that materials can be modified or adapted to students with different learning styles or learning capabilities.

Enabling Learning Objectives
1. Identify ways to increase the accessibility of instructional aids
   - Sans serif and serif fonts
   - Font size
   - Design elements
     - Color
     - Contrast

2. Identify guidelines for producing instructional and other printed materials in alternate media for persons with disabilities
   - Production of materials in alternate media
     - Audio readers
     - Braille
     - Tactile graphics
     - Large print
     - Electronic texts
   - Guidelines for implementation of Assembly Bill 422

3. Identify local resources available to assist instructors in meeting student needs

4. Identify alternatives for utilizing the media on the run
   - Equipment failures
   - Planning for equipment failures with alternative resources
   - Methods of adapting audiovisual materials for planned events
Employing AudioVisual Aids

Discussion Questions
1. What are some accessibility considerations an instructor should take into account when creating instructional aids?
2. What legal requirements must be taken into account? How could Assembly Bill 422 affect you as an instructor at your particular agency?

Activities
1. Instructor must create an activity demonstrating accessibility issues in instructional materials.

Instructor Notes
1. Instructor must refer to California Community Colleges’ chancellor’s office and local agency policies and procedures.
2. Instructor must refer to Assembly Bill 422 and the Americans with Disabilities Act.

Instructor Notes
1. Discussions must include the advantages and disadvantages associated with each type of instructional aid.

Topic 4-7: Media Conversion and Alternatives

Terminal Learning Objective
At the end of this topic, a student, given examples of historical media and information for converting media, will be able to describe methods and considerations for converting old media formats for preservation and/or potential future use, so that historical audiovisual formats can be adapted to current electronic formats.

Enabling Learning Objectives
1. Identify principle considerations for storing and archiving media
   • Preserving Older Media
   • Archiving older media formats with current software
   • Life span of electronic media once archived
   • Other electronic storage issues
   • Size of electronic files
   • Maintaining appropriate software to access the media
2. Identify services and equipment available for media conversion
   • Commercial businesses
   • Scanners
   • Digital converters
   • Resources such as college interns
3. Describe considerations for media conversion
   • Cost
   • Availability
   • Efficiency
   • Relevancy and appropriateness of the media
   • Evaluation of media’s ability to meet the learning objectives
   • Legal or licensing considerations
Employing AudioVisual Aids

- Permissions for reproduction – Ask for Permission
4. Identify media storage systems and methods of access
  - Storage and access to cds or dvds
  - Hardware connection methods change with new storage systems
  - iCloud services becoming more accessible

Discussion Questions
1. What are some resources available to convert old media?
2. When might it not be necessary to convert old media? When might it not be advisable?
3. What are some challenges or concerns involved in using old media?

Activities
1. To be determined by the instructor

Instructor Notes
1. The discussion should broach evaluating appropriateness and relevancy of older media sources. Considerations include gender bias, cultural sensitivity, current best practices, and changes in laws and statutes, such as HIPAA.

Unit 5: Photography and Videography

Topic 5-1: Photography

Terminal Learning Objective
At the end of this topic, a student, given basic photographic concepts, will be able to capture images, so that electronic images or graphics can be incorporated into ancillary instructional documents or instruments.

Enabling Learning Objectives
1. Film Photography (traditional)
   - Film
   - Slide
   - And of course . . . Digital
2. Digital Photography
   - DSLR cameras (digital single lens reflex)
   - Mirror-less cameras (minus the mirror reflex optical viewfinder)
3. Aerial Photography
   - Drones (Fixed Wing)
   - Drones (Quad-copters or Multi-Engine)
   - FPV or VR (First Person View or Virtual Reality)
   - FAA Registration and Regulations
   - FAA - Part 107 Certification
   - AMA Insurance
   - Other
4. Describe the transition through and with current media formats
Employing AudioVisual Aids

Discussion Questions
1. How has photography been involved in just the past 20 years?
2. How can aerial photography be so significant for capturing learning resources?

Activities
1. To be determined by the instructor

Instructor Notes
1. This section is intended to only cover the basics of photography.
2. There are many resources for photography classes, which include online and their local colleges.

Topic 5-2: Videography

Terminal Learning Objective
At the end of this topic, a student, given basic videography concepts, will be able to capture videos or short electronic clips, so that electronic videos or clips can be incorporated into ancillary instructional instruments or electronic learning media formats or educational programs.

Enabling Learning Objectives
1. Equipment
   - Camcorders
   - Digital Recorders
   - Computer (Tablet) Recorders
   - Smart phones
2. Video Production
   - Storyboarding
   - Pre-Production
   - Production
   - Post-Production
3. Computers and editing software
4. Describe the transition to current media formats

Discussion Questions
1. How can storyboarding save you time and cost?
2. Describe the significance of Production time utilizing computers for electronic equipment.

Activities
1. To be determined by the instructor
2. Video Assignment Allow 2 Hours

Instructor Notes
1. Make sure to identify any restrictions when the student groups go into the field to record their video project.
2. Confirm that there is a safety officer throughout the whole process in the filming project.
3. Any significant events must be reported to the instructor immediately.
Unit 6: Managing the Learning Environments

Topic 6-1: Classroom Teaching Learning Environments

Terminal Learning Objective
At the end of this topic, a student, given guidelines for managing learning environments, will be able to describe and set up different learning environments, so that students can safely and effectively participate, operate and learn in both indoor or outdoor learning environments.

Enabling Learning Objectives
1. Smart Classrooms
2. Smart boards
3. Active / Passive
4. Indoor
   - Time management
   - Safety
   - Seating arrangements
     - Center table
     - Herringbone or Chevron pattern
     - Work table
     - U shape
     - Auditorium
   - Student placement / Distance
   - Media utilization
   - Placement of media
     - Keystone correction
   - Projection screens
   - Acoustics
5. Outdoor
   - Time management
   - Safety
   - Determine Site Safety Plan
   - Gordon Graham: “If it is predictable - It is preventable”
6. Safety - Once Again!
   - Reporting
   - Preventing reoccurrence
   - Assign a Safety Officer

Discussion Questions
1. What are some elements to consider upon entering a learning environment?
2. What are the different seating arrangements to consider?
3. What are some seating distances that should be considered when establishing the seating arrangement?
4. What could be considered the most often overlooked aspect in outdoor learning environment?

Activities
1. To be determined by the instructor

Instructor Notes
1. Allow discussion for increased engagement.

**Topic 6-2: Emerging Technologies in Adult Education**

**Terminal Learning Objective** *(move to resources)*

At the end of this topic, a student, given examples of emerging instructional technologies, will be able to describe trends in technology and their application as training aids, so that resources are described and identified, utilized effectively while forecasting budgetary aspects for audiovisual instruments.

**Enabling Learning Objectives**

1. Identify resources for information on emerging technologies
   - Organizations
   - Training magazine
   - American Society for Training and Development
   - National Fire Academy
   - Masie (center and website)
     - The MASIE Center is an international thinktank dedicated to exploring the intersection of learning and technology.
   - Trade conferences
   - Instructor workshops
   - Webinars
   - Internet
   - Private sector
   - Training Resources and Data Exchange (TRADE) (TRADENET)
2. Recognize trends in instructional technology
3. Describe application techniques for emerging technology
4. Partnerships and Collaborations
5. Requesting Resources
6. Cost-Sharing strategies
7. Budget
8. Obtaining Materials
   - Test Banks
   - Repositories
   - Publishers’ Materials
   - Internet
9. Electronic Art (Clip Art)
Employing AudioVisual Aids

- Commercial
- Personally produced
  - Modification with graphics programs (Ex: Photoshop)

Discussion Questions
1. What is your obligation as an instructor with regards to remaining current and informed with regards to technology?
2. How have you seen instructors or coworkers use emerging technologies to their advantage?

Activities
1. To be determined by the instructor

Instructor Notes
1. The instructor should create a forum for brainstorming and information sharing.

Topic 6-3: E-Learning

Terminal Learning Objective
At the end of this topic, a student, given advance technological learning environments, will be able to incorporate and design instructional content, so that individual learners and learning groups can perform in interactive and collaborative learning groups.

Enabling Learning Objectives
1. Smart classrooms
2. Cloud base learning
3. Distance Learning
   - Conferencing
   - Satellite
   - Podcasts
   - Webinars
4. Challenges of Hybrid Learning
   - Challenges
   - Instructor contact
   - Analog students versus Electronic students performing with the media and the technology
5. Collaborative Learning with internet Learning Groups
6. Story Maps
   - A story map is a strategy that uses a graphic organizer to help students learn the elements of a book or story. By identifying story characters, plot, setting, problem and solution, students read carefully to learn the details. There are many different types of story map graphic organizers.
   - If you have a story that unfolds across several places over a period of time, storymaps can provide an engaging interactive medium with which to tell the story. This post reviews some examples of how interactive map legends can be used to annotate a story, and then rounds up seven tools that provide a great way to get started creating your own story maps.
7. Describe the utilization of the You-Tube Generation
   • Television had a good run, but it may be time to change the channel. With more than one billion hours of viewership every day, YouTube looks set to soon surpass TV as the most watched format in the U.S.
   • The Wall Street Journal reports that the online video platform has seen a 10-fold increase in viewership over the past five years, due in part to the use of artificial intelligence to predict user preferences and keep people tuned in. (February 2017)

Discussion Questions
1. What is cloud-based learning?
2. What is hybrid learning?
3. What are some advantages or disadvantages of hybrid learning?
4. How can story maps be effective with interactive learning?
5. What could be possible future for “life after YouTube” training?

Activities
1. To be determined by the instructor
2. Allow 8 Hours for student teaching demonstrations

Instructor Notes
1. Create discussion for “life after YouTube” training.

Unit 7: Student Teaching Demonstrations

Topic 7-1: Conducting Teaching Demonstration

Terminal Learning Objective
At the end of this topic, a student, given a topic and a target audience, will be able to conduct a class using a lesson plan that the instructor has prepared, using multiple teaching methods and techniques to achieve lesson objectives.

Enabling Learning Objectives
1. Describe use and limitations of teaching methods and techniques
2. Transition between different teaching methods
3. Conduct small group discussions
   • Problem-solving
   • Facilitating consensus

Discussion Questions
1. How would you recognize when you need to implement an alternative method of instruction?
2. What techniques can an instructor employ to keep a small group discussion focused?
3. What media tools could you utilize when leading a small group discussion?

Activities
1. Have students compare and contrast instructional techniques used for leading discussion in small groups vs. a lecture presentation.
2. Activity 7-1: Cognitive Teaching Demonstration
Instructor Notes
1. Conducting small group discussions is covered in depth in the IFSTA text.

Topic 7-2 Evaluating Student Instructor Lesson Demonstrations

Terminal Learning Objective
At the end of this topic, a student, given a recent student instructor demonstration and an evaluation form, will be able to evaluate other student instructor presentations to provide constructive feedback that identifies strengths and weaknesses of the teaching demonstration.

Enabling Learning Objectives
1. Observe a teaching demonstration
2. Document strengths and weaknesses of student instructor performance according to established criteria
3. Facilitate a review and discussion of the teaching demonstration, including instructor style
   • Consider flow of presentation
   • Consider whether teaching style and audience learning styles are well matched

Discussion Questions
1. What is the purpose of providing oral and written feedback to the student instructor?
2. What is the value of peer evaluation versus instructor evaluation?
3. What is the purpose of facilitating a discussion regarding a teaching demonstration?

Activities
1. Activity 7-2: Evaluating a Student Instructor’s Cognitive Teaching Demonstration as a Primary Evaluator

Instructor Notes
1. More information about teaching styles can be found in Teaching With Style (Grasha, 1996).
## Employing AudioVisual Aids

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<thead>
<tr>
<th>Segment</th>
<th>Lecture Time</th>
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<th>Total Unit Time</th>
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<td>Topic 1-1: Orientation and Administration</td>
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## Employing AudioVisual Aids

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## Unit 5: Photography and Videography

| Topic 5-1: Photography |  |  | |
| Lecture | 2:00 | | |
| Activity 5-1: Instructor determined |  | 00:00 | |
| Topic 5-2: Videography |  |  | |
| Lecture | 2:00 | | |
| Activity 5-2: Instructor determined |  | 2:00 | |
| **Unit 5 Totals** | 4:00 | 2:00 | 6:00 |

## Unit 6: Managing the Learning Environments

| Topic 6-1: Classroom Teaching Learning Environments |  |  | |
| Lecture | 1:00 | | |
### Employing AudioVisual Aids

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<td>Activity 7-2:</td>
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**Course Totals**

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FSTEP Instructional Development Series
Implementation Plan

This document is intended to provide information for all State Fire Training (SFT) stakeholders on the update of retired courses. Historically, three (3) courses were required for the level 2 certification of the Instructor Curriculum. These courses were retired with the adoption of the new Instructor I (2014) and Instructor II (2014) curriculum. It is intended to maintain professional development of all Instructors desiring to teach the Instructor I and Instructor II course curriculum. The Instructor Curriculum Cadre is recommending to maintain the requirements with in-depth training included in these updated three (3) courses for Instructors to qualify for teaching the new Instructor I and Instructor II curriculum.

Techniques of Evaluation (32 Hours)

Group Dynamics and Problem Solving (32 Hours)

Employing Audiovisual Aids (39 Hours)

FSTEP Instructional Development Series (2017) Change Timeline

COURSE PHASE OUT .......................................................... Effective December 31, 2016

(1989) courses will no longer be delivered and the curriculum has been retired.

**INSTRUCTOR REQUIREMENTS .......................................................... Effective September 1, 2017**


New instructors for the FSTEP Instructional Development Series (2017) which includes Techniques of Evaluation (2017), Group Dynamics and Problem Solving (2017), and Employing Audiovisual Aids (2017) courses shall meet the SFT requirements for Registered Instructor, and will be required to complete all three courses or apply for a Pace II review of their instructor qualifications, including appropriate education and practical experience relating to course content.

**SFT STAFF COORDINATION**

These courses replace former CFSTES courses and will now realign under FSTEP course curriculum in the Instructional Development Series.

**POTENTIAL AGENCY IMPACTS**

Fire agencies utilizing any existing previous course curriculum from the CFSTES courses shall realign with the FSTEP curriculum. All previous curriculums will realign with the FSTEP course curriculum and the curriculum has been updated to current instructional standards.

After review, fire agencies should update their job specifications and recruitment documentation to reflect these new courses. Fire agencies should also evaluate how these new courses may impact their existing labor agreements.

Accredited Regional Training Programs (ARTP), Accredited Local Academies (ALA), community colleges and all other local delivery venues need to review the curriculum and seek approval from their curriculum committee/program sponsor, as deemed appropriate.