CERTIFICATION CURRICULUM MANUAL

CHAPTER EIGHT

FIRE INSTRUCTOR

NFPA 1041, 2012 Edition

Effective January 1, 2014

Texas Commission on Fire Protection

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Course Instructor Information

Fire Instructor I, II and III

Overview
The Fire Instructor curricula are designed to provide clear guidance that ensures adequate presentation of the information required to meet the Job Performance Requirements (JPRs) of National Fire Protection Association (NFPA) 1041, *Standard for Fire Service Instructor Professional Qualifications*, 2013 edition.

The Fire Instructor curricula make up Chapter 8 of the TCFP Curriculum Manual.

Certification Level	TCFP Section Number	NFPA 1041 Chapter
Fire Instructor I	801	4
Fire Instructor II	802	5
Fire Instructor III	803	6

Layout
The NFPA numbering sequence is mirrored to allow easy correlation between this document and the NFPA Standard. For example, 801-4.4.5 identifies the section in Instructor I that corresponds to NFPA section 4.4.5.

When a section references information from "Annex A Explanatory Material" in the NFPA Standard, it is identified by adding an "A" to the section number. For example, 802-A.5.4.3 identifies the section in Instructor II that corresponds to NFPA Annex A information for NFPA section 5.4.3.

TCFP Standards Manual
It is critical that you review the chapters in the TCFP Standards Manual that apply to this curriculum. Of primary importance are the following three chapters. Definitions of key terms are located in Chapter 439; Minimum standards for Fire Instructor certification are located in Chapter 425; Requirements for training facilities, including instructor requirements are located in Chapter 427. These chapters do not address every issue that could impact this curriculum; therefore, you are encouraged to become familiar with the TCFP Standards Manual.

Components of the Curricula

Each section of a curriculum identifies the NFPA Job Performance Requirement (JPR) and subdivides the requisite knowledge requirements into learning components. For example:

View within the Curriculum		Explanation
801-4.2.5	Complete training records and report forms, given policies and procedures and forms, so that required reports are accurate and submitted in accordance with the procedures.	**Section Number and NFPA JPR**
	Requisite Knowledge: Types of records and reports required; and policies and procedures for processing records and reports.	**Requisite Knowledge Statement**
	(1) Types of records and reports required	**First part of Requisite Knowledge**
	Typical training records should include the following (NFPA 1401 3.3.4) (a) A daily training record (b) A company record (c) An individual training record (d) Special and summary records	**Associated learning components**
	(2) Policies and procedures for processing records and reports	**Second part of Requisite Knowledge**
	(a) Federal, state and local requirements (b) Agency requirements (c) Training or facility provider requirements	**Associated learning components**

Skills
NFPA Requisite Skill requirements are addressed in the corresponding Skill Sheets.

NFPA Definitions of Certification Levels
Instructor I: A fire service instructor who has demonstrated the knowledge and ability to deliver instruction effectively from a prepared lesson plan, including instructional aids and evaluation instruments; adapt lesson plans to the unique requirements of the students and authority having jurisdiction; organize the learning environment so that learning and safety are maximized; and meet the record-keeping requirements of authority having jurisdiction.

Instructor II: A fire service instructor who, in addition to meeting Instructor I qualifications, has demonstrated the knowledge and ability to develop individual lesson plans for a specific topic including learning objectives, instructional aids, and evaluation instruments; schedule training sessions based on overall training plan of authority having jurisdiction; and supervise and coordinate the activities of other instructors.

Instructor III: A fire service instructor who, in addition to meeting Instructor II qualifications, has demonstrated the knowledge and ability to develop comprehensive training curriculum and programs for use by single or multiple organizations; conduct organization needs analysis; design record keeping and scheduling systems; and develop training goals and implementation strategies.

INSTRUCTOR I

CHAPTER EIGHT

FIRE INSTRUCTOR I

CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
801-4.1	General	1
801-4.2	Program Management	7
801-4.3	Instructional Development	16
801-4.4	Instructional Delivery	16
801-4.5	Evaluation and Testing	8
	TOTAL RECOMMENDED HOURS	**48**

REFERENCE LIST FOR THE
FIRE INSTRUCTOR I CURRICULUM

Fire and Emergency Services Instructor (8th ed.). (2012). Stillwater, OK: International Fire Service Training Association, Oklahoma State University.

Fire Service Instructor: Principles and Practice (2nd ed.). (2014). Burlington, MA: Jones and Bartlett Learning.

NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (2012 ed.). Quincy, MA: National Fire Protection Association. NFPA Publications.

NFPA 1401: Recommended Practice for Fire Service Training Reports and Records (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

NFPA 1403: Standard on Live Fire Training Evolutions (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

SECTION 801

FIRE INSTRUCTOR I

A Fire Instructor I is a fire service instructor who has demonstrated the knowledge and ability to:

- deliver instruction effectively from a prepared lesson plan, including instructional aids and evaluation instruments;
- adapt lesson plans to the unique requirements of the students and authority having jurisdiction (AHJ);
- organize the learning environment so that learning is maximized;
- meet the record-keeping requirements of the AHJ.

801-4.1   General

801-4.1.1   The Fire Service Instructor I shall meet the JPRs defined in Sections 801-4.2 through 801-4.5 and meet any other certification requirements.

801-4.2   Program Management

801-4.2.1   **Definition of Duty.** The management of basic resources and the records and reports essential to the instructional process.

801-4.2.2   Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed o deliver the lesson are obtained.

Requisite Knowledge. Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability.

1) Components of a lesson plan
   a) Lesson presentation preparation
   b) Lesson title or topic
   c) Time frame
   d) Level of instruction
   e) Behavioral objectives
   f) Materials needed
   g) Prerequisites
   h) Instructor notes
   i) References/resources

2) Policies and procedures for the procurement of materials and equipment, and resource availability
    a) Identify materials and equipment necessary
    b) Determine availability
    c) Acquire or reserve
    d) Alternate resource planning (backup plan)
    e) Return materials and equipment

Requisite Skills. None required.

801-4.2.3　Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented.

Requisite Knowledge. Resource management, sources of instructional resources and equipment.

1) Resource management
    a) Facilities
    b) Apparatus
    c) Equipment
    d) Supplies

2) Sources of instructional resources and equipment
    a) Government reports
    b) Videos
    c) Texts
    d) Related websites

Requisite Skills. Oral and written communication, forms completion.

801-4.2.4　Schedule single instructional sessions, given a training assignment, department scheduling procedures, instructional resources, facilities and timeline for delivery, so that the specified sessions are delivered according to department procedure.

Requisite Knowledge. Departmental scheduling procedures and resource management.

1) Departmental scheduling procedures (AHJ)

2) Resource management
    a) Scheduling facilities
    b) Scheduling apparatus

      c) Scheduling equipment
      d) Scheduling supplies

Requisite Skills. Training schedule completion.

801-4.2.5 Complete training records and report forms, given policies and procedures and forms, so that required reports are accurate and submitted in accordance with the procedures.

Requisite Knowledge. Types of records and reports required, and policies and procedures for processing records and reports.

1) Types of records and reports required
    a) A daily training record
    b) A company record
    c) An individual training record
    d) Special and summary records

2) Policies and procedures for processing records and reports
    a) Federal, state and local requirements
    b) Agency requirements
    c) Training or facility provider requirements

Requisite Skills. Basic report writing and record completion.

801-4.3 *Instructional Development*

801-4.3.1 **Definition of Duty.** The review and adaptation of prepared instructional materials.

801-A.4.3.1 The Instructor I should **not** alter the content or the lesson objectives in this process.

801-4.3.2 Review instructional materials, given the materials for a specific topic, target audience, and learning environment, so that elements of the lesson plan, learning environment, and resources that need adaptation are identified.

801-A.4.3.2 The Instructor I, prior to the start of the course, should be able to evaluate local conditions, evaluate facilities for appropriateness, meet local standard operating procedures (SOPs), and evaluate limitations of students.

Requisite Knowledge. Recognition of student limitations and cultural diversity, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures.

1) Recognition of student limitations
   a) Language
   b) Learning disability
   c) Learning style
   d) Environment
   e) Cultural and ethnicity
   f) Physical
   g) Motivation
   h) Demographics
   i) Literacy levels
   j) Life experiences
   k) Educational background

2) Methods of instruction
   a) Identify appropriate delivery method for audience
      i) Demonstration
      ii) Illustration
      iii) Lecture
      iv) Discussion
      v) Individualized instruction

3) Types of resource materials
   a) Paper-based (books, handouts)
   b) Electronic (internet, computer-based, audiovisual)
   c) Subject matter experts (SMEs)
   d) Equipment/tools of the trade
   e) Facilities
   f) Props

4) Organizing the learning environment
   a) Seating
   b) Lighting
   c) Climate (indoors/outdoors)
   d) Safety
   e) Audiovisual (all inclusive)
   f) Restrooms/break area
   g) Noise/distractions

5) Policies and procedures
   a) Federal, state and local requirements

     b) Agency requirements
     c) Training or facility provider requirements

    Requisite Skills. Analysis of resources, facilities, and materials.

801-4.3.3   Adapt a prepared lesson plan, given course materials and an assignment, so that the needs of the student and the objectives of the lesson plan are achieved.

801-A.4.3.3 The Instructor I should be able to modify the method of instruction and course materials to meet the needs of the student and accommodate the instructor's style. This includes adaptations necessary due to the learning environment, audience, capability of facilities, and types of equipment.

    Requisite Knowledge. Elements of a lesson plan, selection of instructional aids and methods, and organization of the learning environment.

    1) Elements of a lesson plan, from NFPA 1041 A.4.3.3(A)
       a) Job title or topic
       b) Level of instruction
       c) Behavioral objectives, performance objectives, or learning outcomes
       d) Instructional materials needed
       e) References/resources
       f) Preparation step (motivation)
       g) Presentation step
       h) Application step
       i) Lesson summary
       j) Evaluation step
       k) Assignment

    2) Selection of instructional aids and methods, from NFPA 1041 A.4.3.3(A)
       a) Demonstration
       b) Illustration
       c) Lecture
       d) Individualized instruction

    3) Organization of learning environment
       a) Review lesson materials
       b) Review training objectives
       c) Determine capability of facilities and/or equipment
       d) Select appropriate learning environment

TEXAS COMMISSION ON FIRE PROTECTION   **CERTIFICATION CURRICULUM MANUAL**
CHAPTER 8   **FIRE INSTRUCTOR I**
SECTION 801

    4) Elements of the communication process, from NFPA 1041 A.4.3.3(A)
       a) Encoding
       b) Transmitting
       c) Receiving
       d) Decoding

Requisite Skills. Instructor preparation and organizational skills.

801-4.4   Instructional Delivery

801-4.4.1   **Definition of Duty.** The delivery of instructional sessions utilizing prepared course materials.

801-4.4.2   Organize the classroom, laboratory, or outdoor learning environment, given a facility and an assignment, so that lighting, distractions, climate control or weather, noise control, seating, audiovisual equipment, teaching aids, and safety are considered.

    Requisite Knowledge. Classroom management and safety, advantages and limitations of audiovisual equipment and teaching aids, classroom arrangement, and methods and techniques of instruction.

    1) Classroom management and safety
       a) Security measures
       b) Evacuation/safety plan
       c) Safety devices in place/available
       d) Climate controls
       e) Proper lighting

    2) Advantages and limitations of audiovisual equipment and teaching aids
       a) Non-projected media
       b) Projected media
       c) Simulators
       d) Computer technology
       e) Audio equipment

    3) Classroom arrangement
       a) Seating/table arrangement
       b) Classroom/training area access
       c) Minimize distractions
       d) Media placement

    4) Methods and techniques of instruction

a) Demonstration
b) Illustration
c) Lecture
d) Individualized instruction

Requisite Skills. Use of instructional media and teaching aids.

801-4.4.3   Present prepared lessons, given a prepared lesson plan that specifies the presentation method(s), so that the method(s) indicated in the plan are used and the stated objectives or learning outcomes are achieved, applicable safety standards and practices are followed, and risks are addressed.

Requisite Knowledge. The laws and principles of learning methods and techniques of instruction, lesson plan components and elements of the communication process, and lesson plan terminology and definitions; the impact of cultural differences on instructional delivery; safety rules, regulations and practices; identification of training hazards; elements and limitations of distance learning; distance learning delivery methods; and the instructor's role in distance learning.

1) The laws and principles of learning
    a) Thorndike's Laws of Learning
         i)   Readiness
         ii)   Exercise
         iii) Effect
         iv) Disuse
         v)   Association
         vi) Recency
         vii) Primacy
         viii) Intensity

2) Methods and techniques of instruction
    a) Demonstration
    b) Illustration
    c) Lecture
    d) Individualized instruction
    e) Oral questioning
         i)   Overhead
         ii)   Rhetorical
         iii) Relayed
         iv) Directed

3) Lesson plan components and elements of the communication process, from NFPA 1041 A.4.3.3(A)
   a) Lesson title or topic
   b) Level of instruction
   c) Behavioral objectives, performance objectives, or learning outcomes
   d) Instructional materials needed
   e) References/resources
   f) Preparation step (motivation)
   g) Presentation step
   h) Application step
   i) Lesson summary
   j) Evaluation step
   k) Assignment

4) The elements of the communication process
   a) Sender
   b) Message
   c) Instructional medium
   d) Receiver
   e) Feedback
   f) Environment

5) Lesson plan terminology and definitions
   a) Lesson plan
   b) Lesson title or topic
   c) Level of instruction
   d) Behavioral objectives, performance objectives, or learning outcomes
   e) Instructional materials (aids, tools and equipment, materials and supplies)
   f) References
   g) Resources
   h) Preparation step (motivation of learner)
   i) Presentation step
   j) Application step
   k) Lesson summary
   l) Evaluation step
   m) Assignment

6) The impact of cultural differences on instructional delivery
   a) Student backgrounds
      i) Cultural
      ii) Ethnic

      b) Values
      c) Behaviors
      d) Attitudes

7) Safety rules, regulations and practices
      a) Applicable NFPA standards (i.e., 1403, etc.)
      b) TCFP rules
      c) Federal and state regulations
      d) Departmental policies and procedures
      e) Equipment manufacturers' recommendations

8) Identification of training hazards
      a) Slips, trips and falls
      b) Environmental
      c) Thermal
      d) Sharp objects
      e) Mechanical
      f) Chemical
      g) Apparatus, machinery or equipment operations

9) Elements and limitations of distance learning
      a) Students and instructors are in separate locations
      b) Interactive media used for communications and instruction
          i) Internet/intranet
          ii) Interactive television
          iii) Mail/e-mail
      c) Instructor difficulties
          i) No immediate feedback
          ii) Limited interaction
      d) Student difficulties
          i) Motivation
          ii) Time allocation
          iii) Technical difficulties

10) Distance learning delivery methods, from NFPA 1041 A.4.4.3(A)
      a) Online learning
      b) Blended e-learning
      c) Web-based instruction
      d) Computer-based training
      e) Interactive television
      f) Podcasts

11) The instructor's role in distance learning
      a) Functions as a facilitator

Requisite Skills. Oral communication techniques, methods and techniques of instruction, and utilization of lesson plans in an instructional setting.

801-4.4.4   Adjust presentation, given a lesson plan and changing circumstances in the class environment, so that class continuity and the objectives or learning outcomes are achieved.

Requisite Knowledge. Methods of dealing with changing circumstances.

1) Methods of dealing with changing circumstances
   a) The Instructor I should be able to adjust to such changing circumstances as the following:
      i)   Equipment failure
      ii)   Weather
      iii)   Audio and visual distractions
      iv)   Safety
      v)   Limited resources
      vi)   Presentation location
      vii)   Interruptions (e.g. emergency response)
   b) The Instructor I should **not** alter the content or the lesson objectives in this process.

Requisite Skills. None required.

801-4.4.5   Adjust to differences in learning styles, abilities, cultures and behaviors, given the instructional environment, so that lesson objectives are accomplished, disruptive behavior is addressed, and a safe learning environment is maintained.

801-A.4.4.5 Examples of disruptive behavior include, but are not limited to, harassment, abuse, discrimination, disruption of training, horseplay, and a lack of respect for others.

Requisite Knowledge. Motivation techniques, learning styles, types of learning disabilities and methods for dealing with them, and methods of dealing with disruptive and unsafe behavior.

1) Factors that could influence the learning process, from NFPA 1041 A.4.4.5(A)
   a) Attitude
   b) Experience
   c) Knowledge

      d) Education
      e) Personality
      f) Physical condition (fatigue, illness, etc.)
      g) Unsafe behavior
      h) Motivation
      i) Competing demands for time

2) Motivation techniques
      a) Define motivation
      b) Maslow's Hierarchy of Needs
         i) Physiological
         ii) Security
         iii) Social
         iv) Self-esteem
         v) Self-actualization
      c) Herzberg's Job Enrichment Model
         i) Dissatisfiers (Hygiene Factors)
            (1) Relationships
            (2) Supervision quality
            (3) Policies and administration
            (4) Working conditions
            (5) Personal life
         ii) Satisfiers (Motivator Factors)
            (1) Achievement
            (2) Recognition
            (3) Work
            (4) Responsibility
            (5) Advancement

3) Learning styles
      a) Auditory
      b) Kinesthetic
      c) Visual
      d) Tactile

4) Types of learning disabilities and methods for dealing with them
      a) Slow learner
      b) Memory
      c) Auditory/visual perception
      d) Oral language
      e) Speaking, listening, writing difficulties
      f) Word recognition/comprehension
      g) Math deficient
      h) Methods to handle may include:

    i) Counseling
    ii) Coaching
    iii) Peer assistance
    iv) Mentoring

5) Methods of dealing with disruptive and unsafe behavior
 a) Non-intentionally disruptive learner
   i) Shy or timid
   ii) Quiet or bored
   iii) Uninterested
   iv) "Intellectual" (knowledgeable, resource for the class)
   v) "Explorer" (highly motivated to learn, challenges instructor)
 b) Intentionally disruptive learner
   i) Talkative and aggressive
   ii) Show off
   iii) Fast learner (may become bored or challenge the instructor)
   iv) "Prisoner" (required attendance)
   v) "Vacationer" (not interested in learning, but in having a good time elsewhere at someone else's expense)
   vi) "Pseudo intellectual" (tries to impress others … know it all)
 c) Unsafe behaviors
   i) Improper use of equipment
   ii) Not following safety procedures/standards
   iii) Horseplay
 d) Methods to handle may include:
   i) Coaching
   ii) Use of motivational techniques
   iii) Discipline
   iv) Adaptation of lesson plan or materials

Requisite Skills. Basic coaching and motivational techniques, correction of disruptive behaviors, and adaptation of lesson plans or materials to specific instructional situations.

801-4.4.6 Operate audiovisual equipment and demonstration devices, given a learning environment and equipment, so that the equipment functions properly.

Requisite Knowledge. Components of audiovisual equipment.

1) Components of audiovisual equipment
 a) Visual aids may include, but are not limited to the following:
   i) Non-projected visuals
    (1) Pictures

TEXAS COMMISSION ON FIRE PROTECTION   CERTIFICATION CURRICULUM MANUAL
CHAPTER 8   FIRE INSTRUCTOR I
SECTION 801

        (2)   Drawings
        (3)   Charts
        (4)   Graphs
        (5)   Maps
        (6)   Posters
        (7)   Flipcharts
        (8)   Cutaways
        (9)   Models
      (10)   Handouts
      (11)   Actual objects
    ii)   Projected visuals
        (1)   Slides
        (2)   Transparencies
        (3)   Document cameras
    iii)   Digital image projection
        (1)   Presentation software (e.g., PowerPoint)
b) Audio aids may include, but are not limited to the following:
    i)   Audio tapes
    ii)   Audio CDs
    iii)   MP3s
    iv)   Microphones
    v)   Speakers
    vi)   Amplifiers
c) Audiovisual aids may include, but are not limited to the following:
    i)   Videotapes
    ii)   DVDs
    iii)   Presentation software (e.g., PowerPoint)
    iv)   CDs
    v)   Simulation software
d) Other equipment may include, but is not limited to the following:
    i)   Dry erase board
    ii)   Chalk board
    iii)   Electronic copy board
    iv)   Pointing devices
    v)   Timekeeping devices
    vi)   Screens
e) Set up, usage and storage of audiovisual equipment according to manufacturer's recommendations may include, but is not limited to the following:
    i)   Cleaning lenses, focus/image adjustment (Keystone), power supply, lighting
    ii)   Volume levels
    iii)   Change bulbs
    iv)   Package for storage/transport

v)	Changing filters
vi)	Changing batteries
vii)	Spare batteries
viii)	Component interface (cables/drivers)
ix)	Cleaning supplies
x)	Chalk/markers/erasers
xi)	Screens

Requisite Skills. Use of audiovisual equipment, cleaning, and field level maintenance.

801-4.4.7   Utilize audiovisual materials, given prepared topical media and equipment, so that the intended objectives are clearly presented, transitions between media and other parts of the presentation are smooth, and media are returned to storage.

Transitions are the connections between training segments and/or media. They should be:
- Smooth
- Clear
- Concise
- Understandable
- Compatible

Requisite Knowledge. Media types, limitations, and selection criteria.

1) Media types, limitations, and selection criteria
   a) Visual media
      i) Limitations
      ii) Selection criteria
   b) Audio media
      i) Limitations
      ii) Selection criteria
   c) Audiovisual media
      i) Limitations
      ii) Selection criteria
   d) Other media types
      i) Limitations
      ii) Selection criteria

Requisite Skills. Transition techniques within and between media.

_801-4.5_   _Evaluation and Testing_

801-4.5.1   **Definition of Duty.** The administration and grading of student evaluation instruments.

801-A.4.5.1   This duty primarily deals with student evaluation; however, the Instructor I could be required to conduct program evaluations according to policies and procedures.

801-4.5.2   Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and the evaluation procedures of the agency, so that bias or discrimination is eliminated, the testing is conducted according to procedures and the security of the materials is maintained.

Requisite Knowledge. Test administration, agency policies, laws and policies pertaining to discrimination during training and testing, methods for eliminating testing bias, laws affecting records and disclosure of training information, purposes of evaluation and testing, and performance skills evaluation.

1) Test administration
   a) Oral
      i) Environmental preparation
      ii) Eliminating bias
      iii) Reducing test anxiety
      iv) Security
      v) Procedures
      vi) Test materials
   b) Written
      i) Environmental preparation
      ii) Eliminating bias
      iii) Reducing test anxiety
      iv) Security
      v) Procedures
      vi) Test materials
   c) Performance
      i) Environmental preparation
      ii) Eliminating bias
      iii) Reducing test anxiety
      iv) Security
      v) Procedures
      vi) Safety
      vii) Equipment and supplies
      viii) Test materials

2) Agency policies

   a) Oral testing
   b) Written testing
   c) Performance testing
   d) Record keeping

3) Laws and policies pertaining to discrimination during training and testing
   a) Federal
   b) State
   c) Local

4) Methods for eliminating testing bias
   a) Identify bias
   b) Report bias (AHJ)
   c) Avoid bias

5) Laws affecting records and disclosure of training information
   a) Federal
      i)   Family Educational Rights and Privacy Act (FERPA)
      ii) Occupational Safety and Health Administration (OSHA)
   b) State
      i)   Texas Commission on Fire Protection (TCFP)
      ii) Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE)
      iii) Texas Department of State Health Services (DSHS)
   c) Local
      i)   AHJ (e.g., civil service, public health authority, local ordinance)

6) Purposes of evaluation and testing
   a) Determine if objectives are met
   b) Feedback
      i)   To students
      ii) To instructors
   c) Student motivation
   d) Instructor effectiveness

7) Performance skills evaluation
   a) Verifies Job Performance Requirements (JPRs)

Requisite Skills. Use of skills checklists and oral questioning techniques.

801-4.5.3   Grade student oral, written, or performance tests, given class answer sheets or skills checklists and appropriate answer keys, so the examinations are accurately graded and properly secured.

Requisite Knowledge. Grading methods, methods for eliminating bias during grading, and maintaining confidentiality of scores.

1) Grading methods
    a) Manual grading
        i)   Verify correct answer key
        ii)   Tabulate results
    b) Optical mark readers
        i)   Familiarization with grading equipment
        ii)   Verify correct answer key
        iii) Tabulate results
    c) Computer based
        i)   Familiarization with grading equipment
        ii)   Verify correct answer key
        iii) Tabulate results
    d) Consistency
        i)   Elimination of bias
        ii)   Fairness
        iii) Uniform application of grading criteria
    e) Security
        i)   Evaluation instrument (e.g., exam, skill sheet)
        ii)   Answer key

2) Methods for eliminating bias during grading
    a) Identify bias
    b) Report bias (AHJ)
    c) Avoid bias

3) Confidentiality of scores
    a) Individual
    b) Group

Requisite Skills. None required.

801-4.5.4   Report test results, given a set of test answer sheets or skills checklists, a report form, and policies and procedures for reporting, so that the results are accurately recorded, the forms are forwarded according to procedure, and unusual circumstances are reported.

Requisite Knowledge. Reporting procedures and the interpretation of test results.

1) Reporting procedures
   a) Recording results
      i)   Written
      ii) Electronic
   b) Reporting results
      i)   Unusual circumstances noted
      ii) Forward results according to local procedure

2) The interpretation of test results
   a) Follows grading guidelines
   b) Determines pass/fail
   c) Determines need for retest
   d) Notes trends

Requisite Skills. Communication skills and basic coaching.

801-4.5.5   Provide evaluation feedback to students, given evaluation data, so that the feedback is timely; specific enough for the student to make efforts to modify behavior; and objective, clear, and relevant; also include suggestions based on the data.

801-A.4.5.5 The Instructor I is expected to be able to assess student test results and identify areas requiring additional study and communicate this information to the student.

Requisite Knowledge. Reporting procedures and the interpretation of test results.

1) Reporting procedures
   a) Explain grading criteria
   b) Report results to examinee(s) in a timely manner
   c) Individual score
   d) Range of scores
   e) Number of passing scores

2) The interpretation of test results
   a) Provide evaluation feedback
      i)   Timely
      ii) Objective
      iii) Clear
      iv) Specific

        v)   Relevant
    b) Recognize outstanding performance
    c) Make suggestions for improvement as needed

Requisite Skills. Communication skills and basic coaching.

INSTRUCTOR II

CHAPTER EIGHT

FIRE INSTRUCTOR II

CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
802-5.1	General	1
802-5.2	Program Management	16
802-5.3	Instructional Development	12
802-5.4	Instructional Delivery	7
802-5.5	Evaluation and Testing	12
	TOTAL RECOMMENDED HOURS	**48**

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NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (2012 ed.). Quincy, MA: National Fire Protection Association. NFPA Publications.

NFPA 1401: Recommended Practice for Fire Service Training Reports and Records (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

NFPA 1403: Standard on Live Fire Training Evolutions (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

SECTION 802

FIRE INSTRUCTOR II

A Fire Instructor II is a fire service instructor who, in addition to meeting Instructor I qualifications, has demonstrated the knowledge and ability to:

- **Develop individual lesson plans** for a specific topic including learning objectives, instructional aids, and evaluation instruments
- **Schedule training sessions** based on overall training plan of the authority having jurisdiction (AHJ)
- **Supervise and coordinate the activities of other instructors**

802-5.1   General

For certification at Level II, the Fire Instructor I shall meet the job performance requirements (JPRs) defined in Sections 802-5.2 through 802-5.5 of this standard.

802-5.2   Program Management

802-5.2.1   **Definition of Duty.** The management of instructional resources, staff, facilities, and records and reports.

802-5.2.2   Schedule instructional sessions, given department scheduling policy, instructional resources, staff, facilities, and timeline for delivery, so that the specified sessions are delivered according to department policy.

Requisite Knowledge. Departmental policy, scheduling processes, supervision techniques, and resource management.

1) Types of training schedules
   a) Periodic training schedule/station training
   b) Periodic training schedule/training facility activities
   c) All other training
      i)   Recruit
      ii)   In-service
      iii) Special
      iv)   Officer
      v)   Advanced
      vi)   Mandated

2) Departmental policy

a) Staffing levels (e.g., overtime issues; in service versus out of service – emergency response availability)
b) Mandated versus non-mandated training

3) Scheduling processes
   a) Shift scheduling
   b) Administrative
   c) Support personnel
   d) Knowledge of class offering
      i)   Time and place
      ii) Prerequisites
      iii) Resources: websites, brochures, catalogs

4) Supervision techniques
   a) Selection of instructional staff
      i)   Lead instructors
      ii) Assistant instructors
      iii) Examiners or proctors

5) Resource management
   a) Facilities
   b) Materials and supplies
   c) Prop acquisition
   d) Apparatus status (emergency response availability)

Requisite Skills. None required.

802-5.2.3　Formulate budget needs, given training goals, agency budget policy, and current resources, so that the resources required to meet training goals are identified and documented.

Requisite Knowledge. Agency budget policy, resources management, needs analysis, sources of instructional materials, and equipment.

1) Agency budget policy
   a) Meet timelines
   b) Comply with approval process
   c) Justify requests

2) Resource management
   a) Facilities
   b) Apparatus
   c) Equipment
   d) Supplies

3) Needs analysis
   a) Identify need for training
      i)   External mandates
      ii)   Departmental goals (short-term and long-term)
      iii)   Correct deficiencies
      iv)   Maintain proficiency
   b) Determine solution
   c) Costs for implementation
      i)   Personnel
      ii)   Facilities
      iii)   Equipment
      iv)   Supplies
      v)   Contingency

4) Sources of instructional materials and equipment
   a) Publishers
   b) Government publications
   c) Manufacturers
   d) Associations
   e) Educational institutions
   f) Websites

Requisite Skills. Resource analysis and forms completion.

802-5.2.4   Acquire training resources, given an identified need, so that the resources are obtained within established timelines, budget constraints, and according to agency policy.

Requisite Knowledge. Agency policies, purchasing procedures, and budget management.

1) Agency policies
   a) Knowledge of agency policies and procedures
   b) Rules and regulations

2) Purchasing procedures (acquisition procedures)
   a) Identify product or service
   b) Identify supplier
   c) Follow requisition procedures
   d) Follow approval path
   e) Confirm delivery

3) Budget management

a) Budget constraints
b) Track expenditures
c) Amendments

Requisite Skills. Forms completion.

802-5.2.5   Coordinate training record-keeping, given training forms, department policy, and training activity, so that all agency and legal requirements are met.

Requisite Knowledge. Record-keeping processes, departmental policies, laws affecting records and disclosure of training information, professional standards applicable to training records, and databases used for record-keeping.

1) Types of training records
    a) Departmental training record
    b) Individual special course record
    c) Individual training record
    d) Progress chart
    e) Certification training record (Firefighter)
    f) Educational courses
    g) Vocational courses
    h) Seminars and other training
    i) Periodic company summary
    j) Chief officers' periodic training summary
    k) Group training records and evaluation

2) Record keeping processes
    a) Electronic
    b) Paper-based (hard copy)

3) Departmental policies
    a) Record retention
    b) Security
    c) Tracking

4) Laws affecting records and disclosure of training information
    a) Federal
        i)   Family Educational Rights and Privacy Act (FERPA)
        ii) Occupational Safety and Health Administration (OSHA)
    b) State
        i)   Texas Commission of Fire Protection (TCFP)

TEXAS COMMISSION ON FIRE PROTECTION   CERTIFICATION CURRICULUM MANUAL
CHAPTER 8   FIRE INSTRUCTOR II
SECTION 802

    ii) Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE)

    iii) Texas Department of State Health Services (DSHS)

  c) Local – AHJ (e.g., civil service, public health authority, local ordinance)

5) Professional standards applicable to training records
  a) Detailed to enable factual reporting, while remaining as simple as possible
  b) Kept to a minimum to avoid confusion and duplication of effort
  c) Secured and confidential

6) Databases used for record keeping
  a) Cost effective method of processing comprehensive data
  b) Allow for report generation
  c) Allow quick access to data
  d) Improve security
  e) Decrease storage space problems
  f) Maintain back up records

Requisite Skills. Record auditing procedures.

802-5.2.6 Evaluate instructors, given an evaluation form, department policy, and job performance requirements (JPRs), so that the evaluation identifies areas of strengths and weaknesses, recommends changes in instructional style and communication methods, and provides opportunity for instructor feedback to the evaluator.

Requisite Knowledge. Personnel evaluation methods, supervision techniques, department policy, and effective instructional methods and techniques.

1) Personnel evaluation methods
  a) Observation
  b) Student feedback
  c) Student performance
  d) Instructor characteristics
    i) Ability
    ii) Knowledge
    iii) Experience
    iv) Instructional methods
    v) Organization

2) Supervision techniques

TEXAS COMMISSION ON FIRE PROTECTION   CERTIFICATION CURRICULUM MANUAL
CHAPTER 8   FIRE INSTRUCTOR II
SECTION 802

     a) Directing
     b) Coaching
     c) Supporting
     d) Delegating

3) Department policy
     a) Knowledge of departmental policies and procedures, rules and regulations

4) Effective instructional methods and techniques
     a) Lecture
     b) Discussion
     c) Illustration
     d) Demonstration

Requisite Skills. Coaching, observation techniques, and completion of evaluation forms.

802-5.3   *Instructional Development*

802-5.3.1   **Definition of Duty.** The development of instructional materials for specific topics.

802-5.3.2   Create a lesson plan, given a topic, audience characteristics, and a standard lesson plan format, so the JPRs or learning objectives for the topic are addressed, and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan.

     Requisite Knowledge. Elements of a lesson plan, components of learning objectives, methods and techniques of instruction, principles of adult learning, techniques for eliminating bias in instructional materials, types and application of instructional media, evaluation techniques, and sources of references and materials.

1) Elements of a lesson plan
     a) Job title or topic
     b) Level of instruction
     c) JPRs, behavioral objectives, performance objectives, or learning outcomes
     d) Instructional materials needed
     e) References
     f) Preparation step (motivation)
     g) Presentation step
     h) Application step

TEXAS COMMISSION ON FIRE PROTECTION   **CERTIFICATION CURRICULUM MANUAL**
CHAPTER 8   **FIRE INSTRUCTOR II**
SECTION 802

    i)   Lesson summary
    j)   Evaluation step
    k)   Assignment

2)   Components of learning objectives
    a)   **A**udience (may be implied)
    b)   **B**ehavior statement
    c)   **C**onditions description
    d)   **D**egree (standards criteria)

3)   Methods and techniques of instruction
    (i.e., uses, advantages, disadvantages, and limitations/requirements)
    a)   Lecture
    b)   Demonstration
    c)   Illustration
    d)   Directed activity
    e)   Oral questioning
        i)   Overhead
        ii)   Rhetorical
        iii)   Relayed
        iv)   Directed
    f)   Discussion
    g)   Reading
    h)   Individualized instruction
    i)   Role-play
    j)   Case studies
    k)   Conference
    l)   Brainstorming
    m)   Team teaching
    n)   Mentoring

4)   Principles of adult learning (Malcolm Knowles)
    a)   Autonomous and self-directed
    b)   Personal experience and knowledge
    c)   Goal oriented
    d)   Relevancy oriented
    e)   Practical
    f)   Need for respect

5)   Techniques for eliminating bias in instructional materials
    a)   Adhere very closely to the source material that is being taught
    b)   Be very careful in the wording used (i.e. gender neutral)
    c)   Avoid references to specific cultural backgrounds and stereotypes

TEXAS COMMISSION ON FIRE PROTECTION   **CERTIFICATION CURRICULUM MANUAL**
CHAPTER 8   **FIRE INSTRUCTOR II**
SECTION 802

6) Types and application of instructional media
   a) Visual aids
   b) Audio aids
   c) Audiovisual aids

7) Evaluation techniques
   a) Written
   b) Performance
   c) Role-play

8) Sources of references and materials
   a) Publishers
   b) Government publications
   c) Manufacturers
   d) Associations
   e) Educational institutions
   f) websites

Requisite Skills. Basic research, using JPRs to develop behavioral objectives, student needs assessment, development of instructional media, outlining techniques, evaluation techniques, and resource needs analysis.

802-5.3.3   Modify an existing lesson plan, given a topic, audience characteristics, and a lesson plan, so that the JPRs or learning objectives for the topic are addressed and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan.

Requisite Knowledge. Elements of a lesson plan, components of learning objectives, methods and techniques of instruction, principles of adult learning, techniques for eliminating bias in instructional materials, types and application of instructional media, evaluation techniques, and sources of references and materials.

1) Elements of a lesson plan – from NFPA 1041 A.4.3.3(A)
   a) Lesson title or topic
   b) Level of instruction
   c) Behavioral objectives, performance objectives, or learning outcomes
   d) Instructional materials needed
   e) References/resources
   f) Preparation step (motivation)
   g) Presentation step
   h) Application step

TEXAS COMMISSION ON FIRE PROTECTION   **CERTIFICATION CURRICULUM MANUAL**
CHAPTER 8   **FIRE INSTRUCTOR II**
SECTION 802

       i)   Lesson summary
       j)   Evaluation step
       k)   Assignment

2)   Components of learning objectives
       a)   **A**udience (may be implied)
       b)   **B**ehavior statement
       c)   **C**onditions description
       d)   **D**egree (standards criteria)

3)   Methods and techniques of instruction
       a)   Lecture
       b)   Demonstration
       c)   Illustration
       d)   Directed activity
       e)   Oral questioning
             i)   Overhead
             ii)   Rhetorical
             iii)   Relayed
             iv)   Directed
       f)   Discussion
       g)   Reading
       h)   Individualized instruction
       i)   Role-play
       j)   Case studies
       k)   Conference
       l)   Brainstorming
       m)   Team teaching
       n)   Mentoring

4)   Principles of adult learning
       a)   Autonomous and self-directed
       b)   Personal experience and knowledge
       c)   Goal oriented
       d)   Relevancy oriented
       e)   Practical
       f)   Need for respect

5)   Techniques for eliminating bias in instructional materials
       a)   Adhere very closely to the source material that is being taught
       b)   Be very careful in the wording used (i.e. gender neutral)
       c)   Avoid references to specific cultural backgrounds and stereotypes

6)   Types and application of instructional media

   a) Visual aids
   b) Audio aids
   c) Audiovisual aids

7) Evaluation techniques
   a) Written
   b) Performance
   c) Role-play

8) Sources of references and materials
   a) Publishers
   b) Government publications
   c) Manufacturers
   d) Associations
   e) Educational institutions
   f) Websites

Requisite Skills. Basic research, using JPRs to develop behavioral objectives, student needs assessment, development of instructional media, outlining techniques, evaluation techniques, and resource needs analysis.

802-5.4   *Instructional Delivery*

802-5.4.1   **Definition of Duty.** Conducting classes using a lesson plan.

802-5.4.2   Conduct a class using a lesson plan that the instructor has prepared and that involves the utilization of multiple teaching methods and techniques, given a topic and a target audience, so that the lesson objectives are achieved.

Requisite Knowledge. Use and limitations of teaching methods and techniques.

1) Use a limitations of teaching methods and techniques
   a) Audiences with advanced knowledge or experience
   b) Problem solving
   c) Reaching group solution
   d) Reaching group consensus

Requisite Skills. Transition between different teaching methods.

802-A.5.4.2(B). The Instructor II should acquire skills to effectively utilize problem-solving techniques, to facilitate and lead conferences, and to use

discussion methods of presentation. These techniques are frequently used to conduct small group sessions where participants have advanced knowledge and experience in the subject matter and the goal is to reach a group solution to a problem or issue.

802-5.4.3   Supervise other instructors and students during training, given a training scenario with increased hazard exposure, so that applicable safety standards and practices are followed, and instructional goals are met.

802-A.5.4.3 Examples of increased hazard exposure training include live fire exercises, hazardous materials, above and below graded rescue, and evolutions that involve the use of power tools. See Annex C or NFPA 1403, *Standard on Live Fire Training Evolutions*, for information regarding the responsibilities of personnel involved in live fire training evolutions.

Requisite Knowledge. Safety rules, regulations, and practices; the incident command system used by the agency; and leadership techniques.

1) Safety rules
    a) Department/organizational safety rules
    b) Student/instructor ratio
    c) Apparatus/instructor ratio
    d) Personal protective equipment (PPE)

2) Regulations and practices
    a) Occupational Safety and Health Administration (OSHA)
    b) National Fire Protection Association (NFPA)
        i)   NFPA 1403 Annex C
            (1)   Instructor-In-Charge
            (2)   Safety Officer
            (3)   Instructor
            (4)   Student
        ii)   Applicable NFPA Standards for increased hazard training (e.g., Hazardous Materials, Rescue, Driver/Operator, Diver)
    c) TCFP Rule 427.18 – Live Fire Training Evolutions

3) The incident command system used by the agency
    a) Department/organizational incident management policy
    b) National Incident Management System (NIMS)

4) Leadership techniques
    a) Lead by example
    b) Coaching/mentoring

    c) Command presence (When in charge, take charge)
    d) Image

Requisite Skills. Implementation of an incident management system used by the agency.

802-5.5   *Evaluation and Testing*

802-5.5.1   **Definition of Duty.** The development of student evaluation instruments to support instruction and the evaluation of test results.

802-5.5.2   Develop student evaluation instruments, given learning objectives, audience characteristics, and training goals, so that the evaluation instrument determines if the student has achieved the learning objectives; the instrument evaluates relative performance in an objective, reliable, and verifiable manner; and the evaluation instrument is bias-free to any audience or group.

Requisite Knowledge. Evaluation methods, development of forms, effective instructional methods, and techniques.

1) Evaluation methods
   a) Classification of tests
      i)   Criterion-referenced
      ii)   Norm-referenced
      iii) Prescriptive
      iv) Progress (formative)
      v)   Comprehensive (summative)
   b) Administration
      vi) Oral
      i)   Written
      ii)   Performance
   c) Objective
      i)   Recognition
      ii)   Recall
   d) Subjective
      i)   Performance
      ii)   Essay
   e) Characteristics of good tests
      i)   Objective
         (1)   Non-biased
         (2)   Measurable
      ii)   Valid
      iii) Reliable

        iv)   Comprehensive
        v)   Convenient

2) Development of forms
    a) Test instruments should include instructions, a sample response, questions, a method of recording answers, scoring and documentation of results for the following written and oral test types.
        i)   Written tests
           (1)   True/false
           (2)   Multiple choice
           (3)   Matching
           (4)   Short answer
           (5)   Fill in the blank
           (6)   Pictorial recall
           (7)   Essay
        ii)   Oral tests
        iii)   Performance evaluation (Skills Testing)
           (1)   Reviewing the objectives
           (2)   Identifying the steps
           (3)   Identifying safety points
           (4)   Determining the mastery standard
           (5)   Establishing rating factors
           (6)   Determining grading criteria
           (7)   Preparing instructions for students and evaluator

3) Effective instruction methods
    a) Evaluation process
        i)   Criteria
        ii)   Evidence
        iii)   Judgment

4) Techniques
    a) Administering evaluations
        i)   Maintain integrity of test
        ii)   Take test to ensure correct answer key
        iii)   Adhere to schedule if timed
        iv)   Establish procedures for trainees to ask questions
        v)   Require trainees to return all tests
        vi)   Posting of grades requires prior <u>written</u> permission of trainees (FERPA)
    b) Procedures for written tests
        i)   Notify of test in advance
        ii)   Test immediately after subject is completed

    iii)   Mark incorrect answers on test
    iv)   Review and discuss with students
    v)   Study incorrect answers – item analysis
    vi)   Put grades on paper and notify student
    vii)   Revise teaching methods/materials if indicated
c) Procedures for performance evaluations
    i)   Notify of test in advance
    ii)   Ensure equipment is working properly
    iii)   Have area and materials set up
    iv)   Follow all safety procedures
    v)   Be sure trainee understands task
    vi)   Check off each step on performance evaluation form – never sign off unless **you** have seen it done
    vii)   Insure fairness to all trainees
    viii)   Maintain ethical conduct
    ix)   Verify competency and determine if objective has been met
    x)   Revise teaching methods/materials if indicated

Requisite Skills. Evaluation item construction and assembly of evaluation instruments.

802-5.5.3   Develop a class evaluation instrument, given agency policy and evaluation goals, so that students have the ability to provide feedback to the instructor on instructional methods, communication techniques, learning environment, course content, and student materials.

Requisite Knowledge. Evaluation methods and test validity.

1) Evaluation methods
    a) Formative evaluation
        i)   Field testing
        ii)   Observation
    b) Summative evaluation
        i)   Course feedback
        ii)   Using evaluation results
            (1)   Determine cause of failure
            (2)   Identify actions to correct
            (3)   Document and report results

2) Test validity
    a) Extent to which a test measures what it is supposed to measure
    b) Validation process

Requisite Skills. Development of evaluation forms.

INSTRUCTOR III

TEXAS COMMISSION ON FIRE PROTECTION   CERTIFICATION CURRICULUM MANUAL
CHAPTER 8   **FIRE INSTRUCTOR III**
SECTION 803

CHAPTER EIGHT

FIRE INSTRUCTOR III

CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
803-6.1	General	1
803-6.2	Program Management	15
803-6.3	Instructional Development	32
803-6.4	Instructional Delivery	0
803-6.5	Evaluation and Testing	16
	TOTAL RECOMMENDED HOURS	**64**

REFERENCE LIST FOR THE
FIRE INSTRUCTOR III CURRICULUM

Fire and Emergency Services Instructor (8th ed.). (2012). Stillwater, OK: International Fire Service Training Association, Oklahoma State University.

Fire Service Instructor: Principles and Practice (2nd ed.). (2014). Burlington, MA: Jones and Bartlett Learning.

NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (2012 ed.). Quincy, MA: National Fire Protection Association. NFPA Publications.

NFPA 1401: Recommended Practice for Fire Service Training Reports and Records (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

NFPA 1403: Standard on Live Fire Training Evolutions (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

SECTION 803

FIRE INSTRUCTOR III

A Fire Instructor III is a fire service instructor who, in addition to meeting Instructor II qualifications, has demonstrated the knowledge and ability to:

- **develop comprehensive training curriculum and programs** for use by single or multiple organizations
- **conduct organization needs analysis**
- **develop training goals and implementation strategies**

803-6.1   General

For certification at Level III, the Fire Instructor II shall meet the job performance requirements (JPRs) defined in Sections 803-6.2 through 803-6.5 of this standard.

803-6.2   Program Management

803-6.2.1   **Definition of Duty.** The administration of agency policies and procedures for the management of instructional resources, staff, facilities, records, and reports.

803-6.2.2   Administer a training record system, given agency policy and type of training activity to be documented, so that the information captured is concise, meets all agency and legal requirements, and can be readily accessed.

803-A.6.2.2   See NFPA 1401, *Recommended Practice for Fire Service Training Reports and Records.*

Requisite Knowledge. Agency policy, record-keeping systems, professional standards addressing training records, legal requirements affecting record-keeping, and disclosure of information.

1) Agency policy – Authority having jurisdiction (AHJ)

2) Record-keeping systems
   a) Electronic
   b) Paper

3) Professional standards addressing training records – NFPA 1401

4) Legal requirements affecting record keeping, and disclosure of information
   a) Federal
   b) State
   c) Local

Requisite Skills. Development of forms and report generation.

803-6.2.3　Develop recommendations for policies to support the training program, given agency policies and procedures and the training program goals, so that the training and agency goals are achieved.

Requisite Knowledge. Agency procedures and training program goals, and format for agency polices.

1) Agency procedures and training program goals
   a) Training program goals
      i) Required training (e.g., state certification)
      ii) Maintenance training (e.g., continuing education)
      iii) Implementing change training (e.g., updated safety policy)
      iv) Professional development program (e.g., career advancement/enhancement)
   b) Types of policies and procedures
      i) Standard operating procedures (SOPs)
      ii) Standard operating guidelines (SOGs)
      iii) Administrative policies and procedures
   c) Policy and procedure development process
      i) Identifying a need
      ii) Revision
      iii) Adoption
      iv) Implementation
      v) Evaluation

2) Format for agency policies
   a) Standardized appearance
   b) Standardized data collection
   c) AHJ

Requisite Skills. Technical writing.

803-6.2.4　Select instructional staff, given personnel qualifications, instructional requirements, and agency policies and procedures, so that staff selection meets agency policies and achievement of agency and instructional goals.

Requisite Knowledge. Agency policies regarding staff selection, instructional requirements, selection methods, the capabilities of instructional staff, and agency goals.

1) Agency policies regarding staff selection – AHJ

2) Instructional requirements
   a) Certifications
   b) Experience
   c) Education
   d) Qualifications
   e) Communication skills
   f) Credibility

3) Selection methods
   a) Application packet
      i) Cover letter
      ii) Resume
      iii) Application
      iv) Supporting documents
   b) Interview
   c) Evaluation
      i) Knowledge-based
      ii) Skill-based

4) The capabilities of instructional staff
   a) Subject matter expertise
      i) Knowledge levels
      ii) Skill levels
   b) Interpersonal dynamics
      i) Supervisors
      ii) Coworkers
      iii) Subordinates
      iv) Students
      v) Public

5) Agency goals
   a) Needs-based instructor selection

Requisite Skills. Evaluation techniques.

803-6.2.5   Construct a performance-based instructor evaluation plan, given agency policies and procedures and job requirements, so that instructors are evaluated at regular intervals, following agency policies.

TEXAS COMMISSION ON FIRE PROTECTION   **CERTIFICATION CURRICULUM MANUAL**
CHAPTER 8   **FIRE INSTRUCTOR III**
SECTION 803

Requisite Knowledge. Evaluation methods, agency policies, staff schedules, and job requirements.

1) Evaluation methods
   a) Observation
   b) Student feedback
   c) Analysis of performance measures (e.g., pass/fail rates, test scores)
   d) Critiquing instructor performance
      i)   Positive comments
      ii) Areas needing improvement
      iii) Comments should refer to specific behaviors
      iv) Schedule a follow up meeting

2) Agency policies – AHJ

3) Staff schedules

4) Job requirements - AHJ

Requisite Skills. Evaluation techniques.

803-6.2.6   Write equipment purchasing specifications, given curriculum information, training goals, and agency guidelines, so that the equipment is appropriate and supports the curriculum.

Requisite Knowledge. Equipment purchasing procedures, available department resources, and curriculum needs.

1) Curriculum needs
   a) Identification
   b) Specifications

2) Available department resources
   a) Budget
   b) Equipment

3) Equipment purchasing procedures
   a) Market research
   b) Resource locations
   c) Specification development
   d) Competitive pricing
   e) Other agency procedures

TEXAS COMMISSION ON FIRE PROTECTION   **CERTIFICATION CURRICULUM MANUAL**
CHAPTER 8   **FIRE INSTRUCTOR III**
SECTION 803

Requisite Skills. Evaluation methods to select the equipment that is most effective and preparations of procurement forms.

803-6.2.7   Present evaluation findings, conclusions, and recommendations to agency administrator, given data summaries and target audience, so that recommendations are unbiased, supported, and reflect agency goals, policies, and procedures.

Requisite Knowledge. Statistical evaluation procedures and agency goals.

1) Statistical evaluation procedures
   a) Agency needs analysis
   b) Data analysis
   c) Elimination of bias
   d) Control of variables
   e) Qualitative data
   f) Quantitative data

2) Agency goals

Requisite Skills. Presentation skills and report preparation following agency guidelines.

_803-6.3_   _Instructional Development_

803-6.3.1   **Definition of Duty.** Plans, develops, and implements comprehensive programs and curricula.

803-6.3.2   Conduct an agency needs analysis, given agency goals, so that instructional needs are identified and solutions are recommended.

Requisite Knowledge. Needs analysis, task analysis, development of JPRs, lesson planning, instructional methods for classroom, training ground, and distance learning, characteristics of adult learners, instructional media, curriculum development, and development of evaluation instruments.

1) Needs analysis
   a) Organizational
   b) Personnel
   c) ADDIE model
      i)   Analyze

      ii)　　Design
      iii)　Develop
      iv)　Implement
      v)　　Evaluate

2) Task analysis
   a) Formal methods
      i)　　Carefully designed and executed surveys
      ii)　Opinion polls
      iii)　Checklists
      iv)　Observations
      v)　　Psychological profiles
      vi)　Research analyses
      vii)　tests
   b) Informal methods
      i)　　Conversations
      ii)　Casual observations of activities and habits
      iii)　Other unobtrusive measures

3) Development of JPRs
   a) Task to be performed
   b) Tools, equipment, or materials that should be provided to successfully complete the task
   c) Evaluation parameters and/or performance outcomes
   d) Requisite knowledge
   e) Requisite skills

4) Lesson planning
   a) Considerations from the training curriculum and program management perspective
   b) Impact of lesson planning on curriculum development
      i)　　Fiscal impact
      ii)　Performance impact

5) Instructional methods for classroom, training ground, and distance learning
   a) Considerations from the training curriculum and program management perspective
   b) Impact of various instructional methods on curriculum development
      i)　　Fiscal impact
      ii)　Performance impact

6) Characteristics of adult learners

     a) Considerations from the training curriculum and program management perspective
     b) Impact of adult learner characteristics on curriculum development
        i) Fiscal impact
        ii) Performance impact

7) Instructional media
     a) Impact of instructional media on curriculum development
        i) Fiscal impact
        ii) Performance impact

8) Curriculum development
     a) Converting JPRs into instructional objectives to clarify performance expectations
        i) Designate or develop reference material
        ii) Knowledge objectives
        iii) Skill objectives
           (1) Skills checklist

9) Development of evaluation instruments
     a) Considerations from the training curriculum and program management perspective
     b) Impact of evaluation instruments on curriculum development
        i) Fiscal impact
        ii) Performance impact

Requisite Skills. Conducting research, committee meetings, and needs and task analysis; organizing information into functional groupings; and interpreting data.

803-6.3.3   Design programs or curricula, given needs analysis and agency goals, so that the agency goals are supported, the knowledge and skills are job-related, the design is performance-based, adult learning principles are utilized, and the program meets time and budget constraints.

Requisite Knowledge. Instructional design, adult learning principles, principles of performance-based education, research, and fire service terminology.

1) Instructional design
     a) Systematic approach to the development of a program to meet instructional needs and goals

2) Adult learning principles

    a) Characteristics of adult learners (Malcolm Knowles)
       i) Autonomous and self-directed
       ii) Personal experience and knowledge
       iii) Goal oriented
       iv) Relevancy oriented
       v) Practical
       vi) Need for respect
    b) Application of adult learning principles

3) Principles of performance-based education
    a) Measures achievement of objectives by performing actions
    b) Components of performance-based education
       i) Curriculum
       ii) Instructional material
       iii) Student assessment
       iv) Instructional practice
       v) Student/system accountability

4) Research
    a) Choose topic
    b) Organize topic into specific items
    c) Identify research sources
    d) Collect and review information
    e) Process or prepare information to support instruction needs
    f) Refresh information as needed

5) Fire service terminology
    a) Utilize common fire service terminology

Requisite Skills. Technical writing and selecting course reference materials.

803-6.3.4   Modify an existing curriculum, given the curriculum, audience characteristics, learning objectives, instructional resources, and agency training requirements, so that the curriculum meets the requirements of the agency, and the learning objectives are achieved.

Requisite Knowledge. Instructional design, adult learning principles, principles of performance-based education, research, and fire service terminology.

1) Instructional design (modification from the training curriculum and program management perspective)

a) Systematic approach to the development of a program to meet instructional needs and goals

2) Adult learning principles
   a) Characteristics of adult learners (Malcolm Knowles)
      i) Autonomous and self-directed
      ii) Personal experience and knowledge
      iii) Goal oriented
      iv) Relevancy oriented
      v) Practical
      vi) Need for respect
   b) Application of adult learning principles

3) Principles of performance-based education
   a) Measures achievement of objectives by performing actions
   b) Components of performance-based education
      i) Curriculum
      ii) Instructional material
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4) Research
   a) Choose topic
   b) Organize topic into specific items
   c) Identify research sources
   d) Collect and review information
   e) Process or prepare information to support instruction needs
   f) Refresh information as needed

5) Fire service terminology
   a) Utilize common fire service terminology

Requisite Skills. Technical writing and selecting course reference materials.

803-6.3.5   Write program and course goals, given JPRs and needs analysis information, so that the goals are clear, concise, measurable, and correlate to agency goals.

Requisite Knowledge. Components and characteristics of goals, and correlation of JPRs to program and course goals.

1) Components and characteristics of goals

TEXAS COMMISSION ON FIRE PROTECTION   CERTIFICATION CURRICULUM MANUAL
CHAPTER 8   FIRE INSTRUCTOR III
SECTION 803

a) Goal theory
    i) Specific better than vague
    ii) Must be committed to goal
    iii) Must be challenging but attainable
b) Clear
c) Concise
d) Measurable
e) Correlated to agency goals
f) Describes the desired outcome of a given course

2) Correlation of JPRs to program and course goals
a) Review needs analysis information
b) Identify program and course needs
c) Develop course goals to meet identified needs using the JPRs

Requisite Skills. Writing goal statements.

803-6.3.6   Write course objectives, given JPRs, so that objectives are clear, concise, measurable, and reflect specific tasks.

Requisite Knowledge. Components of objectives and correlation between JPRs and objectives.

1) Components of objectives
a) **A**udience (may be implied)
b) **B**ehavior statement
c) **C**onditions description
d) **D**egree (standards criteria)

2) Correlation between JPRs and objectives
a) Develop course objectives to meet course goals using the JPRs

Requisite Skills. Writing course objectives and correlating them to JPRs.

803-6.3.7   Construct a course content outline, given course objectives, reference sources, functional groupings and the agency structure, so that the content supports the agency structure and reflects current acceptable practices.

Requisite Knowledge. Correlation between course goals, course outline, objectives, JPRs, instructor lesson plans, and instructional methods.

1) Correlation between course goals, course outline, objectives, JPRs, instructor lesson plans, and instructional methods

    a) Develop course outline to meet course goals and objectives using JPRs

    b) Develop course outline so that lesson plans may be created and instructional delivery methods identified

Requisite Skills. None required.

803-6.4 _Instructional Delivery_

No JPRs at the Instructor III Level.

803-6.5 _Evaluation and Testing_

803-6.5.1 **Definition of Duty.** Develops an evaluation plan; collects, analyses, and reports data; and utilizes data for program validation and student feedback.

803-6.5.2 Develop a system for the acquisition, storage, and dissemination of evaluation results, given agency goals and policies, so that the goals are supported and so that those affected by the information receive feedback consistent with agency policies and federal, state, and local laws.

Requisite Knowledge. Record-keeping systems, agency goals, data acquisition techniques, applicable laws, and methods of providing feedback.

1) Record-keeping systems
    a) Electronic
    b) Paper-based (hard copy)

2) Agency goals – AHJ

3) Data acquisition techniques
    a) Electronic
    b) Paper-based (hard copy)

4) Applicable laws
    a) Federal
    b) State
    c) Local

5) Methods of providing feedback
    a) Electronic paper-based (hard copy)
    b) Verbal

Requisite Skills. The evaluation, development, and use of information systems.

803-6.5.3　　Develop course evaluation plan, given course objectives and agency policies, so that objectives are measured and agency policies are followed.

Requisite Knowledge. Evaluation techniques, agency constraints, and resources.

1) Evaluation techniques
   a) General areas of course evaluation
      i)　　Reaction
      ii)　Knowledge
      iii)　Skills
      iv)　Attitudes
      v)　　Transfer of learning
      vi)　results
   b) Evaluation methods
      i)　　Formative evaluation
      ii)　Field testing (Pilot program)
      iii)　Observation
         (1)　Learner responses
         (2)　Test results
   c) Summative evaluation
      i)　　End of course feedback

2) Agency constraints – AHJ

3) Resources
   a) Human resources
   b) Equipment

Requisite Skills. Decision making.

803-6.5.4　　Create a program evaluation plan, given agency policies and procedures, so that instructors, course components, and facilities are evaluated and student input is obtained for course improvement.

Requisite Knowledge. Evaluation methods and agency goals.

1) Evaluation methods
   a) General areas of program evaluation

      i) Reaction
      ii) Knowledge
      iii) Skills
      iv) Attitudes
      v) Transfer of learning
      vi) Results
  b) Evaluation techniques
      i) Formative evaluation
      ii) Field testing (Pilot program)
      iii) Observation
        (1) Learner responses
        (2) Test results
  c) Summative evaluation
      i) End of course feedback
        (1) Student course evaluation
        (2) Instructor evaluation
        (3) Course component evaluation
        (4) Facilities evaluation

2) Agency goals - AHJ

Requisite Skills. Construction of evaluation instruments.

803-6.5.5   Analyze student evaluation instruments, given test data, objectives, and agency policies, so that validity is determined and necessary changes are made.

Requisite Knowledge. Test validity, reliability, and item analysis.

1) Test validity
  a) A valid test requires the learner to perform the same behavior under the same conditions specified in the instructional objective
  b) Match test item to the objective
  c) Test only skills that relate to the objective
  d) Test at proper learning level
  e) No tricks
  f) Subjects weighted and distributed properly
  g) Accurate predictor of field performance

2) Reliability
  a) A reliable test provides a consistent measure of a student's ability to demonstrate achievement of an objective
  b) Contains no clues
  c) Distractors are realistic

    d) Order of answers is random
    e) Is written clearly
    f) Uses negatives carefully

3) Item analysis
    a) Determine percentage of students who missed the question
    b) Determine why question was missed
    c) Revise question or instruction as necessary

Requisite Skills. Item analysis techniques.