

CERTIFICATION CURRICULUM MANUAL – CHAPTER EIGHT

# **INSTRUCTOR II**

## **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

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- 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)

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- 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

- 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

- i) Lesson summary
  - j) Evaluation step
  - k) Assignment
- 2) Components of learning objectives
    - a) Audience (may be implied)
    - b) Behavior statement
    - c) Conditions description
    - d) Degree (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

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- 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

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- i) Lesson summary
  - j) Evaluation step
  - k) Assignment
- 2) Components of learning objectives
    - a) Audience (may be implied)
    - b) Behavior statement
    - c) Conditions description
    - d) Degree (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

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- 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

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- 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

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- 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 written 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.