

Completers should be able to conduct an incident size-up using the North American Emergency Response Guide, use personal protective equipment and conduct a decontamination procedure. Completers should be prepared to certify at both the Hazardous Materials Awareness and Operations levels.

**FSF 1350**  
**Mathematics for the Fire Service**  
**3:3:0 On Sufficient Demand**

For those seeking the Associate of Applied Science degree. Introduces basic mathematical operations, including fractions, decimals, percentages, measurements, statistics, graphs, formulas and equations. Completers should be able to apply mathematical skills in solving basic fire service problems.

**FSF 2910**  
**Basic Firefighter Internship**  
**3:0:15 Su, F, Sp**

•Prerequisite(s): FSF 1330, FSF 1340, Instructor's recommendation and internship coordinator's approval.

For students who have completed the Recruit Candidate Academy courses and desire an opportunity to apply the knowledge, skills, and abilities learned in a realistic environment. Student interns will experience the fire service as a fully integrated member of a fire company in a career fire department. Additionally, the internship will emphasize the student's work ethic, attitude, and ability to adapt to highly stressful and sometimes dangerous situations.

**FSH—FIRE SCIENCE - HAZARDOUS MATERIALS**

**FSH 2410**  
**Hazardous Materials Technician Fundamentals**  
**3:3:0 On Sufficient Demand**

•Prerequisite(s): FSF 1340  
 Teaches the knowledge requirements of NFPA 471, 472, and CFR 1910.120 regulation for a Hazardous Materials Technician. Includes emergency response plans, classification of materials, ICS roles, personnel protective equipment needs, masks, containment and confinement concepts, decon requirements, termination concepts, toxicological and chemical terms and definitions.

**FSH 2420**  
**Hazardous Materials Technician Skills**  
**2:0:6 On Sufficient Demand**

•Prerequisite(s): FSH 2410  
 Presents the manipulative skill requirements of NFPA 471, 472, and CFR 1910.120 regulation for a Hazardous Materials Technician. Teaches handling simulated incidents, classifying materials, performing in ICS roles, using personnel protective equipment, containment and confinement

operations, setting up and operating decon, diking, plugging, and patching operations.

**FSH 2440**  
**Hazardous Materials Chemistry**  
**3:2:3 On Sufficient Demand**

Presents in-depth chemical information for hazardous materials responders. Teaches basic knowledge of how to evaluate potential hazards and behaviors of hazardous materials. Provides the underlying reasons for chemical reactions of hazardous materials. Includes decision-making abilities, safe operations, and handling.

**FSO—FIRE SCIENCE - OFFICER**

**FSO 2020**  
**Incident Command**  
**3:3:0 F, Sp**

Presents the basic principles of managing an emergency scene through the utilization of an incident command system for simple single unit, to complex multi unit response. Requires use of personnel, equipment, and additional resources to manage an incident by completing a size-up, analyze, develop and implement an action plan, maintain on scene accountability of personnel and resources by following IMS principles. Meets the incident command requirements for Fire Officer I, Fire Officer II, NFPA 1021, Presidential Directive #5, and NIMS compliance.

**FSO 2030**  
**Fire Inspector I**  
**3:3:0 F, Sp**

For Fire Science and Building Inspection Technology students. Addresses the principles of fire inspection and application of the International Fire Code. Topics include identification of fire hazards, fire prevention measures, inspection techniques, and pre-fire planning. Includes classroom discussion and actual inspections of both under-construction and occupied buildings. Successful completers should be prepared to attain Fire Inspector I certification.

**FSO 2050**  
**Fire Protection and Detection Systems**  
**3:3:0 F, Sp**

Teaches students to become familiar with the various types of fire protection and detection systems. Explains how each type of system functions, where such systems are required by code and how the various systems are serviced and maintained.

**FSO 2060**  
**Fire Service Management and Administration**  
**3:3:0 F, Sp**

Addresses the administrative skills and abilities required for Fire Officer II

certification. Includes occupational health and safety concepts, injury prevention, risk management, application of departmental policies and procedures, preparation of budget requests, preparation of news releases, and preparation and maintenance of departmental records and reports.

**FSO 2080**  
**Building Construction for the Fire Services**  
**3:3:0 F, Sp**

For second year Fire Science students. Explores components of building construction that relate to fire and life safety. Explains construction and design factors to be considered during fire inspections, pre-fire planning and fire fighting operations. Emphasis is placed on firefighter safety.

**FSO 2090**  
**Fire Officer I**  
**3:3:0 F, Sp**

For second year Fire Science students and experienced firefighters. Addresses the NFPA requirements for Fire Officer I. Discusses human resource management, community and government relations, application of fire department policies, fire investigation procedures, emergency service delivery and safety considerations. Completers should be prepared to certify as Fire Officer I.

**FSO 2100**  
**Fire Supervision and Leadership**  
**3:3:0 F, Sp**

Designed to bring together basic principles of effective supervision. Includes up-to-date findings from behavioral research practical guidelines for improving supervisory and leadership skills, and applying effective supervisory practices on the job.

**FSO 2110**  
**Fire Instructor I and II**  
**3:3:0 F, Sp**

Teaches the NFPA 1041 requirements for Instructor I and II. Includes job factors that influence teaching, developing behavior objectives and lesson plans, organizing the learning environment, methods of instruction, training aids, and principles of testing and evaluations. Lab activities include classroom presentations, preparing audio visuals, and developing objectives.

**FSO 211A**  
**Fire Service Instructor I**  
**1:1:0 F, Sp**

For second year Fire Science students. Addresses the knowledge and skills required to deliver a training lesson from a prepared outline and instructor's guide. Includes psychology of learning, instructional techniques, instructional media, evaluation techniques, and legal considerations. Completers should be prepared to instruct a fire service audience and certify as Fire Service Instructor I.

FSF

FSH

FSO

## Course Descriptions

### FSO 211B

#### Fire Service Instructor II

2:2:0

F, Sp

•Prerequisite(s): FSO 211A or Departmental Permission

For those who have already completed FSO 211A or attained Fire Service Instructor I certification. Explores job factors that influence teaching, developing behavior objectives and lesson plans, organizing the learning environment, methods of instruction, training aids, and principles of testing and evaluations. Completers should be able to prepare and conduct classroom presentations, prepare audiovisual materials and equipment, and be prepared to certify as Fire Service Instructor II.

### FSO 2200

#### Fire Officer Work Experience

3:1:6

Su, F, Sp

•Prerequisite(s): FSO 2020 and FSO 2100  
Provides an opportunity for students to complete the Fire Officer II work place performance requirements of NFPA 1021, Standard for Fire Officer Professional Qualifications. Under the supervision of an experienced fire officer, requires meeting performance objectives in areas of human resource management, community relations, governmental relations, inspection procedures, investigation procedures, emergency service operations, emergency services planning and personnel safety procedures, through a non-paid work experience.

### FSF—FIRE SCIENCE - INSPECTOR

### FSF 2310

#### Fire Investigator I

3:3:0

F, Sp

Presents basic requirements for fire investigators as found in NFPA 1033. Includes scene examination, documenting the scene, evidence collection and preservation, interviewing techniques, post incident investigation and presenting investigation findings.

### FSF 2320

#### Fire Investigator II

3:3:0

On Sufficient Demand

•Prerequisite(s): FSF 2310 or Departmental Approval

Presents advanced skills for fire investigators. Explores all aspects of the investigative process, scene documentation, advance collection tools and evidence preservation, advanced investigative techniques, case preparation, presenting findings in a legal/court proceeding.

### FSF 2350

#### Public Fire Education I

2:2:0

On Sufficient Demand

Teaches professional qualifications of NFPA 1035. Identifies fire risks and problems in a community. Teaches selecting, designing,

and implementing fire prevention and education programs.

### FSR—FIRE SCIENCE - RESCUE

### FSR 2180

#### Environmental Rescue

3:2:3

On Sufficient Demand

•Prerequisite(s): FSF 1220

Includes analysis and simulation of problems such as wilderness search and rescue, still and swift water rescue, avalanche and mountain rescue. Discusses disaster planning and management as well as rescues from the work place and industrial settings.

### FSR 2700

#### Technical Rescue Principles

3:2:3

On Sufficient Demand

For those with limited fire and emergency services training. Addresses the prerequisite knowledge and skills for technical rescue job performance. Applies the Incident Command System to the management of technical rescue operations, resources and hazards. Includes search and rescue techniques, victim care and extrication, and the use of ropes and rigging. Completers should be prepared for enrollment in any of the technical rescue specialty courses (FSR 2040 - FSR 2090).

### FSR 2740

#### Rope Rescue

3:2:3

On Sufficient Demand

•Prerequisite(s): FSF 1330 and FSF 1340; or departmental approval

Designed to meet the rope rescue job performance requirements of NFPA 1006, Standard for Rescue Technician Professional Qualifications. Addresses various types and configurations of rope rescue systems. Includes compound mechanical advantage systems, rescuer suspension systems, high-angle and vertical victim rescue systems, construction and operation of highline systems, and ascent/ descent procedures.

### FSW—FIRE SCIENCE - WILDLAND

### FSW 1400

#### Wildland Firefighting Fundamentals

4:3:3

F, Sp

Designed to meet the Wildland Firefighter I knowledge and skill requirements of NFPA 1051, Wildland Fire Fighter Professional Qualifications. Teaches students to recognize the

### FSW 1410

#### Wildland Firefighter Practicum I

5:2:9

Su

•Prerequisite(s): FSW 1400 or departmental approval

Provides experience in fighting fires at wildfire and urban interface incidents. Studies wildland fire behavior, fire weather,

and fire mitigation. Teaches size-up, chain of command, communications, strategy, and tactics. Includes developing water sources, learning engine tactics, understanding procedures for aircraft, firing and felling operations. Completers should develop skills beyond the entry level firefighter.

### FSW 1420

#### Wildland Firefighter Practicum II

5:2:9

Su, F, Sp

•Prerequisite(s): FSW 1410

Provides students with the training and experience that will assist them in gaining a job in wildland fire management and suppression. Features participation in a 20-person wildland fire suppression crew sponsored by the Utah Division of Forestry, Fire and State Lands. Also teaches about wildland fire behavior as well as fire suppression strategies and tactics. Requires students to participate in physically demanding assignments with long periods of time away from home. Exposes students to wildland fire and the various organizational and mechanical tools used to manage and suppress them, such as; aircraft, bulldozers, large engines and other fire management and suppression equipment.

### FSW 2300

#### Wildland Firefighter Basics

5:4:3

Su, F, Sp

•Prerequisite(s): FSW 1400 or departmental approval

Provides basic weather concepts as well as other environmental factors that influence wildland fire behavior. Features a more in-depth study of fire operations in the urban interface as well as basic aircraft operations on wildland fire incidents. Prepares students to meet or exceed National Wildfire Coordinating Group requirements for the following courses; S-215 Fire Operations in the Urban Interface, S-270 Basic Air Operations and S-290 Intermediate Wildland Fire Behavior.

### FSW 2400

#### Advanced Wildland Firefighter

5:4:3

Su, F, Sp

•Prerequisite(s): FSW 2300

Introduces students to advanced wildland fire strategies and tactics as well as to common leadership tasks and principles. Includes the initiation of the Advanced Wildland Firefighter Task book for the NWCG Red Card position of "Advanced Firefighter" or equivalent NFPA Red Card qualification of Wildland Firefighter II. Meets and/or exceeds NWCG standards for the following classes; L-280 Followership to Leadership, I-200 Basic Incident Command, S-200 Initial Attack Incident Commander Type 4, S-211 Portable Pumps and Water, S-131 Advanced Wildland Firefighter.