Fire Science (FIRE)

Courses

FIRE A101 Principles of Emergency Services 3 Credits
Provides overview of fire protection and emergency services (ES). Includes introduction to the history and development of the fire service, as well as careers in fire and emergency service.

FIRE A105 Fire Prevention 3 Credits
Provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, review of prevention plans, fire inspections, fire and life safety education, and fire investigation.

FIRE A107 Strategy and Tactics of Fire Suppression 3 Credits
Provides the principles of fire ground control through utilization of personnel, equipment and extinguishing agents.
Prerequisites: FIRE A101 with a minimum grade of C.

FIRE A111 Principles of Fire and Emergency Service Administration 3 Credits
Introduces organization and management of a fire and emergency services department and the relationship of government agencies to the fire services. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.
Prerequisites: FIRE A101 with a minimum grade of C.

FIRE A117 Rescue Practices 3 Credits
Introduces rescue problems, techniques, and equipment. Includes SCBA use, urban search and rescue, scene safety, motor vehicle crashes, technical rescue, water, swift water, and ice rescue, mass casualty incidents, and heavy rescue.
Special Note: Students must be physically capable of performing rescue skills and must be currently certified as an Emergency Trauma Technician or an Emergency Medical Technician.
Registration Restrictions: Departmental approval
Prerequisites: EMT A110 or EMT A130.

FIRE A121 Fire Behavior and Combustion 3 Credits
Explores the theories and fundamentals of how and why fires start, spread, and are controlled.
Prerequisites: MATH A105 with a minimum grade of C or concurrent enrollment.

FIRE A123 Fire Investigation I 3 Credits
Provides the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A131 Firefighter I, Series I 3 Credits
Presents fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes orientation, safety, fire behavior, building construction, protective clothing, and self-contained breathing apparatus (SCBA).
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)

FIRE A133 Firefighter I, Series II 3 Credits
Introduces the fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency services processes and methods of their use. Includes portable extinguishers, ropes and knots, building search, victim removal, forcible entry tools, construction, techniques, and ground ladders.
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)
Prerequisites: FIRE A131.

FIRE A135 Firefighter I, Series III 3 Credits
Provides fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes ventilation, water supply, hose rolling, coupling, loading, carrying, advancing, laying, and water fire streams.
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)
Prerequisites: FIRE A133.

FIRE A137 Firefighter I, Series IV 3 Credits
Provides fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency response services processes, and methods of their use. Includes wildland fire control, classes of fire, vehicle fires, sprinkler systems, salvage, overhaul, fire cause, communications equipment and techniques, fire prevention, and public fire education.
Special Note: Successful completion of all four Firefighter I series will qualify/prepare the student to sit for Alaska State Fire Fighter I certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. (Turnout gear provided)
Prerequisites: FIRE A135.

FIRE A151 Wildland Fire Control I 3 Credits
Provides entry level and experienced firefighters with fundamental knowledge of fire behavior, fire organizations, types of fire equipment, emergency services processes and methods of their use. Includes orientation, safety, fire behavior, building construction, protective clothing, and self-contained breathing apparatus (SCBA).
Special Note: Successful course completion combined with physical fitness requirements may qualify the student for an Interagency Fire Qualification Card (Red Card) with a rating of "Firefighter."
FIRE A170 Occupational Safety and Health for Emergency Services 3 Credits
Introduces the basic concepts of occupational health and safety as they relate to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations.

FIRE A190 Selected Topics in Fire and Emergency Services 1-3 Credits
Covers various topics in fire and emergency services technology. Course content is determined by student or industry needs. 
Special Note: Course may not be repeated with same title.
Registration Restrictions: Departmental approval

FIRE A201 Principles of Emergency Management 3 Credits
Examines the history of emergency management. Identifies and determines risk assessments for natural and technological hazards. Examines international disaster management, emergency management and terrorism, and discusses the future of emergency management.
Prerequisites: FIRE A101.

FIRE A202 Fire Protection Hydraulics and Water Supply 3 Credits
Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. 
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A203 Hazardous Materials Chemistry 3 Credits
Apply basic chemistry related to hazardous materials. Includes recognition, identification, reactivity and health hazards potentially encountered by emergency services personnel.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A206 Building Construction Issues Related to Fire Protection 3 Credits
This course examines building construction and design related to firefighter and life safety.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A214 Fire Protection Systems 3 Credits
Provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A105 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A220 Legal Aspects of Emergency Services 3 Credits
Introduces the federal, state and local laws that regulate emergency services including review of national standards, regulations and consensus standards.
Prerequisites: WRTG A111 with a minimum grade of C or concurrent enrollment.

FIRE A221 Principles of Fire and Emergency Services Safety and Survival 3 Credits
Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.
Prerequisites: FIRE A101 with a minimum grade of C and FIRE A121 with a minimum grade of C.

FIRE A230 Fire Department Organizational Theory and Behavior 3 Credits
Exposes the student to fire department organizational theory and behavior. Examines various theories developed to explain and predict employee behavior in an organizational context. Develops analytical thinking capabilities by comparing and contrasting conflicting theories of organizations.
Prerequisites: FIRE A101.

FIRE A231 Firefighter II 4 Credits
Introduces advanced firefighting operations and fundamentals including: incident management, evidence protection and incident reports; communications, foam operations, flammable liquid and gas fires, vehicle extrication, special rescue teams, fire safety and pre-incident surveys and training; equipment maintenance and testing. Successful completion will qualify and prepare the student to sit for Alaska State Firefighter II certification exam. All students are required to wear a complete set of fire department approved protective clothing (turnout gear) during skills training. Turnout gear provided.
Prerequisites: FIRE A137.

FIRE A295 Fire and Emergency Services Practicum 3 Credits
Provides an opportunity to observe, participate and apply firefighting, emergency medical or emergency management skills in a structured and supervised organizational setting.
Registration Restrictions: Departmental approval
Prerequisites: FIRE A101 with a minimum grade of C and (EMT A110 with a minimum grade of C or EMT A130 with a minimum grade of C or FIRE A121 with a minimum grade of C or FIRE A201 with a minimum grade of C).