

Fire Science

Fire Science Degrees and Certificates

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- Fire Science

Fire Science Classes

FS 106: Basic Fire Science

Through a combination of lecture and hands-on training, students will learn how to perform basic functions of structural firefighting in a safe and effective manner. This course in combination with Intermediate Fire Science (FS 121) will include an embedded certification of IFSAC Firefighter One. Fire Department Sponsorship Required.

Credits 10

Weekly Contact Hours 10

Meets Degree Requirements For
Restricted Elective

FS 107: Customer Relations for Fire Service

This course advances the student's skills in maintaining good relations with the public through effective communication and delivering customer service in a sometimes difficult setting. Includes the roles and responsibilities firefighters play in community relations and public information/education. Also includes the firefighter's roles caring for the 'internal' and 'external' customers.

Credits 4

Weekly Contact Hours 4

Meets Degree Requirements For
Restricted Elective

FS 110: Pumpers and Water System Hydraulics

Studies of fluid mechanics dealing with the mechanical properties of water at rest and in motion, its application to suppression operations, and fire streams. Includes municipal and rural water supply operations, basic fire pump components, systems and operational skills. Fire Department Sponsorship Required.

Credits 4

Weekly Contact Hours 4

Meets Degree Requirements For
Restricted Elective

FS 121: Intermediate Fire Science

Through a combination of lecture and hands-on training, the student will learn how to perform intermediate functions of structural firefighting in a safe and effective manner. This course in combination with Basic Fire Science ([FS 106](#)) will include an embedded certification of IFSAC Firefighter One. Fire Department Sponsorship Required.

Credits 10

Weekly Contact Hours 10

Meets Degree Requirements For
Restricted Elective

Prerequisites

[FS 106](#) and fire department sponsorship

FS 130: Wildland Firefighting Basics

Provides the new wildland firefighter with basic FFT2 Red Card-qualifying skills to effectively and safely suppress wildfires while under close supervision. Fire Department Sponsorship Required.

Credits 4

Weekly Contact Hours 4

Meets Degree Requirements For

Restricted Elective

FS 152: Building Construction

Overview of engineering principles by building construction, characteristics of building classifications, life and fire safety devices, fire assemblies, fire loading, fire resistance, and flame spread ratings. Covers the hazards of various methods, techniques, components and materials of building construction. Fire Department Sponsorship Required.

Credits 3

Weekly Contact Hours 3

Meets Degree Requirements For

Restricted Elective

FS 160: Tactics

Includes the planning, implementation and evaluation of basic fire tactics at the responding officer level. Principal elements include size-up, fire simulation, fire behavior, tactics, strategy, resource requirements and proper allocation of resources. Fire Department Sponsorship Required.

Credits 3

Weekly Contact Hours 3

Meets Degree Requirements For

Restricted Elective

Prerequisites

[FS 106](#), [FS 121](#) and fire department sponsorship

FS 180: Hazardous Materials Operations

Designed to prepare the student in the knowledge of hazardous materials and how it relates to the fire service. This course will include embedded certifications of IFSAC Hazardous Materials Awareness and Operations. Fire Department Sponsorship Required.

Credits 3

Weekly Contact Hours 3

Meets Degree Requirements For

Restricted Elective

FS 196: Cooperative Work Experience

Designed to provide students with on-the-job practical field experience. One credit for each five hours of work experience per week.

Credits 1-5

Weekly Contact Hours 25

Meets Degree Requirements For

Restricted Elective

FS 200: Advanced Fire Science

Through a combination of lecture and hands-on training, students will learn how to perform advanced functions of structural firefighting in a safe and effective manner. This course will include an embedded certification of IFSAC Firefighter Two. Fire Department Sponsorship Required.

Credits 10

Weekly Contact Hours 10

Meets Degree Requirements For

Restricted Elective

Prerequisites

[FS 106](#), [FS 121](#) and fire department sponsorship

FS 296: Work Experience

Designed to provide students with on-the-job practical field experience. One credit for each five hours of work experience per week. Prerequisite: instructor's signature.

Credits 1-5

Weekly Contact Hours 25

Meets Degree Requirements For

Restricted Elective