

Undergraduate Certificate - Fire Science

The undergraduate certificate in Fire Science provides a foundation in study of fire science, and introduces the essentials of fire behavior and combustion, fire prevention and protection systems, emergency services, and safety and survival. This online program follows the Fire and Emergency Services Higher Education Model Curriculum (FESHE), as outlined by the U.S. Fire Administration and National Fire Academy. This certificate program is applicable to a variety of career fields including firefighting, fire inspection, and arson investigation, where skilled, knowledgeable professionals are in demand. This online certificate is intended for undergraduate students who seek to expand their knowledge of fire science without committing to a degree program.

Certificate Objectives

Upon successful completion of this certificate, the student will be able to:

- Explain the chemistry components of combustion and how combustion is managed through science.
- Identify the various fire protection systems currently used in today's building protection system.
- Identify construction methods and types of construction.
- Demonstrate use of risk analysis for a geographical community.
- Define the national fire flow formula for proper building protection and water supply.

Certificate Requirements (18 semester hours)

Code	Title	Semester Hours
FSMT102	Fire Behavior and Combustion	3
FSMT188	Fire Prevention	3
FSMT201	Fire Protection Systems	3
FSMT210	Fundamentals of Fire Protection	3
FSMT287	Fire Protection in Building Construction	3
FSMT289	Fire Protection Hydraulics and Water Supply	3
Total Semester Hours		18