



## Why IT – Fire Science

Combining fire science with IT skills opens up diverse career paths, including roles in fire department administration, technology consulting, disaster response coordination, and more.

### 1 | Emerging Technology in Firefighting

Information technology skills can help students stay updated on the latest technological advancements in firefighting equipment and techniques.

### 2 | Data Analysis

IT skills can assist in analyzing fire incident data to identify trends, patterns, and areas for improvement in fire safety protocols.

### 3 | Geospatial Analysis

Understanding geographic information systems (GIS) can aid in mapping fire hazards, response routes, and resource allocation.

### 4 | Remote Sensing

Knowledge of IT can help in utilizing remote sensing technologies to detect wildfires early and monitor fire behavior.

### 5 | Communication Systems

IT courses can teach students about communication systems vital for coordinating firefighting efforts, such as radio communication and data transmission.

### 6 | Emergency Management Software

Learning about software used in emergency management can enhance preparedness and response strategies for fire incidents.

### 7 | Building Information Modeling (BIM)

BIM software can be used to create digital models of buildings, aiding firefighters in understanding building layouts and potential hazards.

### 8 | Drones and Robotics

IT skills can enable students to operate drones and robotic systems used for aerial reconnaissance, search and rescue operations, and fire monitoring.

### 9 | Predictive Analytics

IT knowledge can be applied to predictive analytics models to forecast fire behavior and anticipate potential fire outbreaks.

### 10 | Cybersecurity Awareness

Understanding cybersecurity can help protect critical fire department systems and data from cyber threats.