

# MAJOR

# BACHELOR OF SCIENCE IN FIRE SCIENCE

## DEPARTMENT OF SECURITY, FIRE, AND EMERGENCY MANAGEMENT

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[www.jjay.cuny.edu/departments-security-fire-and-emergency-management](http://www.jjay.cuny.edu/departments-security-fire-and-emergency-management)

See all major requirements at: [www.jjay.cuny.edu/fire-science-major-resources](http://www.jjay.cuny.edu/fire-science-major-resources)

## WHAT WILL YOU LEARN IN THIS MAJOR?

The major in Fire Science prepares students for working with fire systems and regulations in the built environment. Students will explore current and future problems in fire protection, including the application of modern systems in new and existing commercial and residential areas.

### IN THIS MAJOR YOU WILL ■■■

**Understand** the science of fire ignition, fire growth and expansion into Full Room Involvement (Flashover).

**Learn** the history of large fires and how they continue to influence the development of building designs and regulations.

**Examine** the employment of smoke control systems and their use in large public and private areas.

**Study** construction blueprints and specifications, including those used in design-build and ecological design.

**Interpret** fire and building codes and standards for new and existing buildings and construction processes.

### FIRST COURSES IN THE MAJOR ■■■

**Fire Science 101:** Introduction to Fire Science

**Fire Science 205:** Fire Service Hydraulics

**Fire Science 230:** Building Construction  
and Life Safety Systems I

**Fire Science 257:** Fire Dynamics

*“This program is one of the most interesting things I have ever done! The professors know their subjects very well. I am excited to continue in this field. I am currently pursuing my master’s in protection management and hope to work for FEMA one day!”*

— Emanuela Chihaiia, BS 2010, MS 2013

*“The Fire Science Program at John Jay has provided me with the opportunity to interact on a one to one basis with experts in the field of fire protection. The faculty brings a diverse knowledge to the classroom which will prove beneficial to students aspiring to achieve careers in the fire and emergency management fields.”*

— Matt Meister, BS 2011

### WHAT CRITICAL THINKING SKILLS WILL YOU DEVELOP IN THIS MAJOR?

- Problem-Solving
- Analytical Ability
- Predict and control fire behavior based on your understanding of the built environment
- Apply theory and science to the design of fire protection systems

### WHAT MINOR MIGHT BE A GOOD COMPLEMENT TO THIS MAJOR?

- Police Studies
- Public Administration
- Security Management

For more information about minors, go to:  
[www.jjay.cuny.edu/minors](http://www.jjay.cuny.edu/minors)

### WHAT OPPORTUNITIES WILL THIS MAJOR OFFER YOU?

- Learn about fire development.
- Work with 3-Dimensional computer building models.
- Design fire suppression systems.

### THIS MAJOR CAN BE A GREAT FOUNDATION FOR A WIDE RANGE OF JOBS, BUT SOME POSSIBILITIES TO CONSIDER ARE:

- Junior Engineer at a Fire Consulting Company
- Building Fire Inspectors
- Fire Inspectors and Investigators for Federal and State Government as well as Insurance Companies
- Fire and Ambulance Dispatchers
- Forest Fire Inspectors and Prevention Specialists
- Fire Officer
- Security and Fire Alarm Systems Designer or Technician
- Fire and Ambulance Dispatchers
- Health and Safety Technicians
- Fire Product Sales Engineer