

## FIR 150: Fire Investigation

This course will cover the fire/arson problem, responsibility for investigation, laws, motives, insurance, chemistry, cause determination, evidence, interview, reports, court presentation, and fire/arson prevention. Profiles of fire setters will also be studied, including the juvenile fire setter. Three lecture hours per week.

### Course Student Learning Outcomes

Students who successfully complete this course will be able to: 1. Demonstrate the importance of documentation, evidence collection, and scene security process needed for successful resolution 2. Understand and demonstrate the process of conducting fire origin and cause 3. Identify the processes of proper documentation 4. Identify the responsibilities of a firefighter when responding to the scene of a fire, including scene security and evidence preservation 5. Describe the implications of constitutional amendments as they apply to fire investigations 6. Identify key case law decisions that have affected fire investigations 7. Explain the basic elements of fire dynamics and how they affect cause determination 8. Compare the types of building construction on fire progression 9. Describe how fire progression is affected by fire protection systems and building design 10. Discuss the basic principles of electricity as an ignition source 11. Recognize potential health and safety hazards 12. Describe the process of conducting investigations using the scientific method 13. Explain the procedures used for investigating vehicle fires 14. Identify the characteristics of an incendiary fire and common motives of the fire setter

**Credits:** 3

**Program:** Fire Science