



Wayne County Community College District

COURSE SYLLABUS

FPT 245 Fire Investigation I

CREDIT HOURS: 3.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.

PREREQUISITES: FPT 150, FPT 160, FPT 165

EXPECTED COMPETENCIES:

Upon completion of this course, the student will:

1. Identify and explain the responsibilities of the fire department from a firefighter's prospective when responding to the scene of a fire, including the possibility of incendiary devices often encountered.
2. Define criminal law and explain the constitutional amendments (4th, 5th, 6th, 8th, and 14th) as they apply to fire investigations.
3. Analyze the precedents set by constitutional law case studies that have affected fire investigation.
4. Define and explain the common terms used in fire investigations.
5. Describe the basic elements of fire dynamics and how they affect cause determination including fire behavior, characteristics of fuels and methods of heat transfer.
6. Analyze the relationship of building construction on fire investigations including types of construction, construction and finish materials.
7. Evaluate fire protection systems and building services and discuss how their installation affects the ignition of fires in buildings.
8. Discuss the basic principles of electricity.
9. Explain the role of the fire investigator in recognizing health and safety concerns including potential hazardous materials awareness.
10. Describe fire scene investigations and the process of conducting investigations using the scientific method.
11. Explain how an investigator determines the point of origin in a room.
12. Identify the types of fire causes and differentiate between accidental and incendiary causes.
13. Describe and explain the basic procedures used for investigating vehicle fires.
14. Identify the characteristics of arson and common motives of the fire setter.

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:

90%-100% = A
80%-89.9% = B
70%-79.9% = C
60%-69.9% = D
<60% = E