Fire and Rescue II; Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters and emergency services workers help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory, (2) Firefighter I, (3) Firefighter II, (4) Hazardous Materials Awareness, (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding (6) First Responder, and (7) Emergency Medical Technician-Basic to the curriculum.

- DOE Code: 5826
- Recommended Grade Level: Grade 12
- Recommended Prerequisites: Fire and Rescue I
- Credits: 2-3 credits per semester, maximum of 6 credits
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- This course is aligned with postsecondary courses for Dual Credit:
  - Ivy Tech
    - PSAF 120-1st Responder
    - PARM 102- EMT Basic

Dual Credit
This course provides the opportunity for dual credit for students who meet postsecondary requirements for earning dual credit and successfully complete the dual credit requirements of this course.

Application of Content and Multiple Hour Offerings
Intensive laboratory applications are a component of this course and may be either school based or work based or a combination of the two. Work-based learning experiences should be in a closely related industry setting. Instructors shall have a standards-based training plan for students participating in work-based learning experiences. When a course is offered for multiple hours per semester, the amount of laboratory application or work-based learning needs to be increased proportionally.

Career and Technical Student Organizations (CTSOs)
Career and Technical Student Organizations are considered a powerful instructional tool when integrated into Career and Technical Education programs. They enhance the knowledge and skills students learn in a course by allowing a student to participate in a unique program of career and leadership development. Students should be encouraged to participate in SkillsUSA, the CTSO for this area.

Content Standards
Domain – Building Construction
Core Standard 1 Students apply and adapt building construction concepts to prescribe appropriate actions to take in battling fires within structures.

Standards
FRII-1.1 Describe the effects of fire and suppression activities on common building materials
FRII-1.2 Describe items to be observed during size-up of a building
FRII-1.3 Describe dangerous building conditions created by a fire or by actions taken while trying to extinguish a fire
FRII-1.4 Identify indicators of building collapse
FRII-1.5 Describe actions to take when imminent building collapse is suspected
FRII-1.6 Describe building conditions that create additional risk in construction, renovation, and demolition

Domain – Rescue & Extrication
Core Standard 2 Students apply and adapt techniques to safely rescue and extricate victims at fire and emergency scenes.

Standards
FRII-2.1 Discuss maintaining emergency power and lighting equipment
FRII-2.2 Describe characteristics of hydraulic rescue tools
FRII-2.4 Describe characteristics of nonhydraulic rescue tools
FRII-2.5 Discuss cribbing for rescue operations
FRII-2.6 Describe the characteristics of pneumatic tools
FRII-2.7 Discuss lifting/pulling tools used in rescue operations
FRII-2.8 Explain the size-up process for a vehicle incident
FRII-2.9 Describe items to look for when assessing the need for extrication activities
FRII-2.10 Discuss stabilizing vehicles involved in a vehicle incident
FRII-2.11 List the three methods of gaining access to victims in vehicles
FRII-2.12 List the most common hazards associated with wrecked passenger vehicles
FRII-2.13 Explain the dangers associated with Supplemental Restraint Systems (SRS) and Side-Impact Protection Systems (SIPS)
FRII-2.14 Describe basic actions taken for patient management
FRII-2.15 Describe patient removal
FRII-2.16 Describe laminated safety glass and tempered glass
FRII-2.17 Discuss removing glass from vehicles
FRII-2.18 Explain considerations when removing vehicle roof and doors
FRII-2.19 Describe common patterns of structural collapse
FRII-2.20 Describe the most common means of locating hidden victims in a structural collapse
FRII-2.21 Describe structural collapse hazards
FRII-2.22 Describe shoring
FRII-2.23 Discuss technical rescue incidents
FRII-2.24 Service and maintain portable power plants and lighting equipment
FRII-2.25 Extricate a victim trapped in a motor vehicle
FRII-2.26 Assist rescue teams

Domain – Water Supply
Core Standard 3 Students apply concepts to accessing available water reserves to fight fires on scene.

Standards
FRII-3.1 List sources of water supply
FRII-3.2 Describe the three methods of moving water in a system
FRII-3.3 Discuss water treatment facilities
FRII-3.4 Explain the operation of water storage and distribution systems
FRII-3.5 Distinguish among the pressure measurements relevant to water supply
FRII-3.6 Use a pitot tube

Domain - Fire Hose
Core Standard 4 Students evaluate the various types of hose appliances and testing procedures to ensure proper operation.

Standards
FRII-4.1 Describe the characteristics of hose appliances and tools
FRII-4.2 Explain service testing fire hose
FRII-4.3 Discuss test site preparation for service testing fire hose
FRII-4.4 List equipment necessary to service test fire hose
FRII-4.5 Explain the service test procedure
FRII-4.6 Service test fire hose

Domain - Fire Streams
Core Standard 5 Students evaluate procedures for using fire fighting foam to determine the correct techniques and situations to use it in.

Standards
FRII-5.1 Describe the suppression characteristics of fire fighting foam
FRII-5.2 Define terms associated with types of foam and the foam-making process
FRII-5.3 Discuss how foam is generated
FRII-5.4 Discuss foam concentrates
FRII-5.5 Describe methods by which foam may be proportioned
FRII-5.6 Discuss foam proportioners
FRII-5.7 Discuss foam delivery devices
FRII-5.8 List reasons for failure to generate foam or for generating poor-quality foam
FRII-5.9 Describe foam application techniques
FRII-5.10 Discuss hazards associated with foam concentrates
FRII-5.11 Place a foam line in service — in-line educator

Domain - Fire Control
Core Standard 6 Students extinguish or control fires working as a member of a team and using appropriate equipment, tools, and extinguishing agents to fight various blazes.

Standards
FRII-6.1 Demonstrate or define the methods of applying a foam fire stream
FRII-6.2 Assemble and operate a foam fire stream using the appropriate equipment
FRII-6.3 Select and use adapters and appliance for specific fireground situations
FRII-6.4 Control or extinguish piles/stacks of Class A materials (exteriors) while working as a member of a team and using appropriate protective equipment, firefighting tools and
extinguishing agents

FRII-6.5 Control or extinguish open pans of combustible liquids (exterior) while working as a member of a team and using appropriate protective equipment, firefighting tools and extinguishing agents

FRII-6.6 Control or extinguish vehicle fires while working as a member of a team and using appropriate protective equipment, firefighting tools and extinguishing agents

FRII-6.7 Combat a ground cover fire while working as a member of a team and using the necessary tools and equipment to report the threat to property, recognize personal safety, quickly accomplish retreat if warranted, and demonstrate or define both indirect and direct methods of attack

FRII-6.8 Control or extinguish Class A combustible materials within a structure (interior attack) while working as a member of a team and using appropriate protective equipment, firefighting tools and extinguishing agents

Domain-Fire Systems
Core Standard 7 Students analyze various fire detection, alarm, and suppression systems to assess their role in combating fires.

Standards
FRII-7.1 Describe types of heat detectors
FRII-7.2 Describe types of smoke detectors/alarms
FRII-7.3 Explain how flame detectors and fire-gas detectors operate
FRII-7.4 Discuss combination detectors and indicating devices
FRII-7.5 Describe types of automatic alarm systems
FRII-7.6 Discuss supervising fire alarm systems and auxiliary services
FRII-7.7 Describe the operation of an automatic fire sprinkler system
FRII-7.8 Discuss water supply for sprinkler systems
FRII-7.9 Describe major applications of sprinkler systems

Domain-Evidence
Core Standard 8 Students apply investigation concepts at fire scenes to protect evidence.

Standards
FRII-8.1 Discuss the roles of firefighters and investigators at investigations
FRII-8.2 Summarize important observations to be made en route, after arriving at the scene, and during fire fighting operations
FRII-8.3 Discuss firefighter conduct and statements at the scene
FRII-8.4 Explain firefighter responsibilities after the fire
FRII-8.5 Explain how legal considerations affect firefighters during operations that may involve incendiary evidence
FRII-8.6 Discuss protecting and preserving evidence
FRII-8.7 Protect evidence of fire cause and origin
Domain-Fire Department Communications

Core Standard 9  Students evaluate fire department communication equipment and procedures to accurately respond and report incidents.

Standards

FRI-9.1  Summarize guidelines for radio communications
FRI-9.2  Describe information given in arrival and progress reports
FRI-9.3  Explain the purpose of tactical channels
FRI-9.4  Discuss calls for additional resources and emergency radio traffic
FRI-9.5  Discuss evacuation signals and personnel accountability reports
FRI-9.6  Summarize the information in incident reports
FRI-9.7  Create an incident report

Domain-Fire Prevention & Public Education

Core Standard 10 – Students recommend appropriate techniques to counsel the public on fire prevention via inspections and public lessons.

Standards

FRI-10.1  Describe a survey and an inspection
FRII-10.2  Discuss the fire prevention activities of reviewing community data and code enforcement
FRII-10.3  Summarize common fuel and heat-source hazards
FRII-10.4  Discuss common fire hazards and why they increase the likelihood of a fire
FRII-10.5  Summarize special fire hazards in commercial, manufacturing, and public-assembly occupancies
FRII-10.6  Summarize target hazard properties
FRII-10.7  Discuss personal requirements and equipment requirements for conducting inspections
FRII-10.8  Discuss scheduling and conducting fire inspections
FRII-10.9  Discuss the benefits of preincident planning surveys
FRII-10.10  Explain how a preincident planning survey is conducted
FRII-10.11  Explain the purpose of a residential fire safety survey
FRII-10.12  Summarize guidelines for conducting residential fire safety surveys
FRII-10.13  Summarize common causes of residential fires
FRII-10.14  Summarize items to address when conducting residential fire safety surveys
FRII-10.15  Describe the basic steps in presenting fire and life-safety information
FRII-10.16  Discuss and conduct a fire station tours
FRII-10.17  Prepare a preincident survey
FRII-10.18  Conduct a residential fire safety survey
FRII-10.19  Make a fire and life safety presentation