

ALABAMA FIRE COLLEGE

AND PERSONNEL STANDARDS & EDUCATION COMMISSION



COURSE SYLLABUS

Technical Rescue Personnel (TRP): Trench Rescue Awareness, Operations, and Technician Levels

FSC 232

40 clock hours

PREREQUISITES

- (Pro Board or IFSAC) Certified Rescue Technician Rope I or Technical Rescue Personnel: Rope Rescue Awareness and Operations Levels

REQUIRED COURSE MATERIALS

- **Jones & Bartlett: Trench Rescue Principles and Practice to NFPA 1006 and 1670, Fourth Edition**

Other materials:

- Hard hat with chinstrap
- Work gloves
- Work boots (not firefighting boots)
- Clothing suitable for outside activities
- OSHA-approved clear safety glasses

DESCRIPTION

This course is based on NFPA 1006: *Standard for Technical Rescue Personnel Professional Qualifications*, Chapter 12, 2021 Edition. This course is designed to offer a combination of classroom and practical evolutions that allow the student to learn proper techniques to make open trenches and excavations safe for victim access and removal. The class is made realistic by actual sheeting and shoring operations of “unsafe” trenches by using wood, mechanical and pneumatic shoring equipment. The student will also learn and apply multiple skills in lifting practices within the trench environment.

*This is a physically demanding course which requires students to be in good physical condition.

STUDENT LEARNING OBJECTIVES

- Conduct a size-up of a collapsed trench.
- Implement a trench emergency action plan.
- Use and document tactical worksheets; disseminate information; understand mechanics and extent of collapse effects and perform risk-benefit analysis.
- Establish a general safe area around the trench collapse.
- Establish a safe zone within the trench.
- Implement support operations at trench emergencies.
- Construct load stabilization systems.
- Lift a load.
- Coordinate the use of heavy equipment.
- Support a nonintersecting straight wall trench to a maximum depth of 20 feet as a member of a team.
- Support an intersecting trench as a member of a team.
- Install supplemental sheeting and shoring for each 0.61 m (2 ft.) of depth dug below an existing approved shoring system.
- Release a victim from entrapment by components of a collapsed trench.
- Remove a victim from a trench.
- Interpret tabulated data information and tables, place shoring and shielding systems and install supplemental shoring.
- Interpret tabulated data information and tables, place shoring/shielding systems, and identify the types of intersecting trenches.

- Use hand signals, radio equipment, recognize hazards, and assess heavy equipment for precision of movement.
- Identify crush syndrome clinical settings.
- Disassemble support systems at an intersecting trench emergency incident.
- Terminate a trench emergency incident.

CERTIFICATION REQUIREMENTS

To be issued certification, the candidate will: provide documentation of prerequisites, complete required training hours including skills training, successfully complete the cognitive written exam, and successfully complete the practical exam.

ACCREDITATION

Alabama Fire College and Personnel Standards Commission maintains accreditation with Pro Board and IFSAC. Each student will automatically receive national registration and certification upon successful completion of all requirements for certification.

COURSE SCHEDULE (SUBJECT TO CHANGE)

Day One:	(Class) Introduction to Trench Rescue, Soil and Collapse Mechanics, Initial Actions, Personal Protective Equipment and Equipment Basics, Hazard Mitigation, Managing the Trench Incident, Operations Level Trench Rescue Shoring, Victim Care and Extrication. (Drill Field): Review Basic Rescue
Day Two:	(Class) Lifting and Load Stabilization, Technician Level Trench Rescue Shoring (Drill Field): Sheet piling and Shoring (wood shores, screw jacks, and air shores, spot shoring, lip bridges)
Day Three:	(Class) Trench Rescue scenarios (air bags, high points, utilizing ladders, M/A block and tackle, disentanglement pipe, implementing wale systems, backfilling techniques)
Day Four:	(Drill Field) Trench Rescue scenarios (intersecting T, intersecting L, deep wall trench, supplemental shoring)
Day Five:	(Drill Field) Scenario-Based JPR Skills Testing, Equipment returned to trailer. (Class) Review, Paperwork, Survey, Certification Examination.

GRADE ASSESSMENT

WRITTEN EXAMINATION

Perform to a minimum 70% competency on the examination,
(One retest is allowed after 30 days but within one year of course end date.)

PRACTICAL EXAMINATION

Successfully complete a skills/project evaluation to a minimum of 70% competency and successful completion of all critical points. Evaluators will test at least 25% of the skills for each. Skill sheets to be tested will be randomly selected by AFC Certification Unit for the practical examination. (One retest is allowed after 30 days but within one year of course end date.)