

# ALABAMA FIRE COLLEGE

## AND PERSONNEL STANDARDS & EDUCATION COMMISSION



### COURSE SYLLABUS

#### Rescue Technician: Trench I/II

FSC 232

40 clock hours

#### PREREQUISITES

- (Pro Board or IFSAC) Certified Rescue Technician Rope I

#### REQUIRED COURSE MATERIALS

- **Jones & Bartlett: Trench Rescue Principles and Practice, Third Edition**

##### **Other materials:**

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

#### DESCRIPTION

This course is based on NFPA 1006: *Standard for Technical Rescue Personnel Professional Qualifications*. 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.
- 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 of 8 ft. or less 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, Preparing the rescue System, Soil classification and testing, Soil physics and Trench collapse, Incident and Support operations (Drill Field): Review Basic Rescue
Day Two:	(Class) Equipment, Incident Assessment, Hazard Control and Atmospheric Monitoring, Lifting and Moving and Stabilization, Protective Systems (Drill Field) Sheet piling and Shoring (wood shores, screw jacks, and air shores)
Day Three:	(Class) Trench Rescue Shoring Techniques, Victim Access and Care, Rescue Team leadership (Drill Field) Trench Rescue scenarios (air bags, ladder A-frame, M/A block and tackle, disentanglement pipe)
Day Four:	(Class) N/A (Drill Field) Trench Rescue scenarios (air bags, ladder A-frame, M/A block and tackle, disentanglement pipe)
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.)