COURSE OUTLINE
Vehicle and Machinery Rescue 1

Course Description
FS 150. Vehicle and Machinery Rescue 1. 1 hour credit. Prerequisites: FS 100 with a C or better or concurrent enrollment in FS 100. This course will enable the student to recognize conditions requiring vehicle or machinery rescues. The student will also be capable of hazard recognition, equipment use, and techniques necessary to operate at a vehicle or machinery rescue incident. This course is designed to meet National Fire Protection Association’s 1006 and 1670 standards, pertaining to vehicle and machinery rescues.

Course Relevance
This course is designed to meet the concepts covered in the National Fire Protection Association 1006 and 1670, Standard on Operations and Training for Technical Search and Rescue Incidents. Students will expand their knowledge of vehicle and machinery rescues by participating in an in-depth study of stabilization and extrication equipment and techniques. This course will expand on material and concepts briefly covered in FS 140.

Required Materials
For complete material(s) information, refer to https://bookstore.butlercc.edu

Learning Outcomes
The intention is for the student to be able to:
1. Identify procedures for initiating the emergency response system where a vehicle or machinery rescue is required.
2. Identify procedures for carrying out site control and scene management.
3. Recognize hazards associated with vehicle and machinery rescues and the procedures to mitigate these hazards.
4. Identify and utilize personal protective equipment assigned for use at a vehicle and machinery rescue incidents.

Learning PACT Skills that will be developed and documented in this course
Through involvement in this course, the student will develop ability in the following PACT skill area(s):

Analytical Thinking Skills
1. Critical thinking
   • Through use of an analytical process, the student will be able to gather data during an initial scene size-up and determine the proper and safest course of action.

Technology Skills
1. Discipline-specific technology

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• Through demonstration of various extrication and stabilization skills, the student will gain experience with discipline-specific technology.

Major Summative Assessment Task(s)
These learning outcome(s) and the Learning PACT skill(s) will be demonstrated by:
1. Performing a series of cognitive and psychomotor assessments to demonstrate proficiency in vehicle and machinery rescues to meet National Fire Protection Association’s Standard 1006 and 1670.
2. Executing site control and management on a scene requiring advanced vehicle and machinery rescue techniques.

Course Content
I. Skills or Competencies – Actions that are essential to achieve the course outcomes:
(The following skills and competencies are taken from the National Fire Protection Association Standards and the Fire and Emergency Services Higher Education Model and incorporated into each specific course.)
A. Demonstrate sizing up vehicle and machinery incident scenes
B. Recognize vehicle hazards
C. Demonstrate the use of stabilization equipment
D. Demonstrate vehicle extrication
E. Recognize machinery hazards
F. Demonstrate disentanglement techniques

Learning Units
I. Procedures for sizing up existing and potential conditions
   A. Scope, magnitude, and nature of the incident
   B. Location, number and condition of victims
   C. Risk/benefit analysis
   D. Access to the scene
   E. Environmental factors
   F. Available and necessary resources

II. Procedures for ensuring safety within search and rescue area
   A. Stabilization
   B. Isolation

III. Procedures for identifying, containing and stopping fuel release
   A. Identification various fuel types/sources
   B. Identification of various fuel container types and locations
   C. Damming and diking methods of containment

IV. Procedures for protecting victim during extrication or disentanglement
   A. Accessing victims trapped in a vehicle or machinery
   B. Packaging of a trapped victim prior to extrication or disentanglement
V. Performing extrication and disentanglement operations through the use of hand and power tools
   A. Patient packaging
   B. Victim treatment
   C. Victim removal

VI. Demonstrate measures to maintain control of traffic at the incident scene

Learning Activities
Activities will include, but not be limited to, class discussion, lectures, course projects, and practical skill evolutions.

Grade Determination
The student will be evaluated through written exams, skills proficiency assessments, and other methods of evaluation at the discretion of the instructor.