

University of Illinois Fire Service Institute

Course Syllabus

Course Title: Heavy Vehicle Rescue

Course Duration: 40 hours

Program: Vehicle Rescue Program

Course Prerequisites:

Common Passenger Vehicle Rescue

Course Description: This course is the advanced course offered after taking Common Passenger Vehicle Rescue and meets the guidelines of NFPA 1006. The 40 hours is spent mostly with hands-on training using semi-trucks, (large/heavy vehicles), buses, automobiles and various types of machinery. Each student will receive hands on training in stabilization devices, creating additional openings in vehicles for proper patient removal, extrication processes with vehicles and machinery on their side and upside down, practicing on disentanglement of victims in equipment, plus establishing landing zones all the while using the Incident Command System. This class is designed for those who respond to large/heavy vehicle accidents. Upon successful completion of this class, the student will have an increased level of technical knowledge regarding large/heavy vehicles, automobiles in positions other than on their wheels and construction and industrial machinery.

Course Requirements and/or Recommendations: These can be divided into three categories: those completed prior to arriving in class (Pre-Course Work), those completed during class, such as homework assignments and quizzes (Course Work), and requirements completed after class but prior to receiving a certificate of completion. (Post-Course Work)

Pre-Course Work – None

Course Work – Attend and participate in 100% of the course.

Post-Course Work – None

Required Textbook:

Vehicle Rescue and Extrication: Principles and Practice,
Revised 2nd Edition, J&B

The student will need to acquire the textbook prior to the start of class.

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Course Policies:

Attendance Policy: IFSI requires students to attend (100%) or make up all course content that leads to certification. Students are expected to attend on time and to remain in class for the duration of the course. Students **MUST COMPLETE** all portions of a certification course, both classroom and practical, to be eligible to receive their certification.

If a student misses any portion of class with an accumulated absence of 20% or less of scheduled class time, it will be the student's responsibility to arrange the make-up of the missed course content with the instructor(s) or program manager. The student must make up the specific course content that s/he missed, not just the hours. Make-ups are limited to 20% of scheduled class time. Make-ups must be documented on the class roster. If a student's absence is greater than 20% refer to "True Emergencies" section of the IFSI Examination Policy.

Safety Policy: Students shall understand and follow all instructions pertaining to operational safety, as stated by instructors or as written in course materials. Instructors and students shall be mindful of safety at all times. Conduct judged to be unsafe shall be grounds for dismissal from the course.

Academic Integrity Policy: IFSI has the responsibility for maintaining academic integrity so as to protect the quality of the education provided through its courses, and to protect those who depend upon our integrity. It is the responsibility of the student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Any violation of the code of conduct is grounds for immediate dismissal from the course.

Grading Policy: Decisions regarding certificates of course completion shall be made solely by the lead instructor of the course. All grading of exams shall be conducted by the Curriculum/Testing Office. All grading of practical exercises shall be based upon the standards set by the regulatory agency referenced in the course material and IFSI.

Retesting: If a student fails to pass an exam, retesting takes place on set dates at regional sites across the state. More information is provided in the course completion e-mail and on the IFSI website.

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American Disabilities Act: As guaranteed in the Vocational Rehabilitation Act and in the American Disabilities Act, if any student needs special accommodations, they are to notify their instructor and provide documentation as soon as possible so arrangements can be made to provide for the student's needs. If arrangements cannot be made at the class site, the student will test at an alternative time and place where the special accommodations can be made.

Evaluation Strategy: Students will be evaluated with an end of course exam and performance evaluation checklists.

Course Content:

Module: 1

Title: Risk Management

Terminal Learning Objective:

At the conclusion of this module, the student will explain the risk management process.

Module: 2

Title: Tools and Equipment

Terminal Learning Objective:

At the conclusion of this module, the student will identify the proper personal protective equipment (PPE) and tools needed at a heavy vehicle rescue.

Module: 3

Title: Vehicle Stabilization

Terminal Learning Objective:

At the conclusion of this module, the student will describe various ways to stabilize a heavy vehicle at a heavy vehicle incident.

Module: 4

Title: School Buses

Terminal Learning Objective:

At the conclusion of this module, the student will describe how to manage a bus incident.

Module: 5

Title: Load Factors

Terminal Learning Objective:

At the conclusion of this module, the student will explain how load factors affect an incident.

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Module: 6

Title: Helicopter Landing Zones

Terminal Learning Objective:

At the conclusion of this module, the student will describe the purpose of helicopter landing zones.

Module: 7

Title: Machinery

Terminal Learning Objective:

At the conclusion of this module, the student will identify components and safety concerns for various types of machinery.

Module: 8

Title: Commercial Vehicles

Terminal Learning Objective:

At the conclusion of this module, the student will describe how to manage a commercial vehicle incident.

Module: 9

Title: Victim Access and Management in Heavy Vehicles

Terminal Learning Objective:

At the conclusion of this module, the student will describe various means to gain victim access in heavy vehicles.

Module: 10

Title: Alternate Extrication Techniques

Terminal Learning Objective:

At the conclusion of this module, the student will describe alternative extrication techniques that may be used at a vehicle incident.

Module: 11

Title: Terminating the Incident

Terminal Learning Objective:

At the conclusion of this module, the student will describe how to terminate an incident.

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Reference List:

Gordon Graham on Risk Management , Graham Research Consultants,
retrieved from <http://www.youtube.com/watch?v=Og9Usv82CdU>, 2012

NFPA 1006, Standard for Rescue Technician Professional
Qualifications, 2021 Edition

Vehicle Rescue and Extrication: Principles and Practice, Revised 2nd Edition,
J&B, 2022

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Course Schedule

DAY ONE

<u>Event</u>	<u>Duration</u>
Module 1: Risk Management	30 minutes
Module 2: Tools and Equipment	1 hour
Module 3: Vehicle Stabilization	1 hour
Module 4: School Buses	45 minutes
Module 5: Load Factors	30 minutes
Lunch	
Module 6: Helicopter Landing Zones	30 minutes
Module 7: Machinery	45 minutes
Module 8: Commercial Vehicles	1 hour
Module 9: Victim Access and Management In Heavy Vehicles	1 hour
Module 10: Alternate Extrication Techniques	30 minutes
Module 11: Terminating the Incident	30 minutes

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DAY TWO

<u>Event</u>	<u>Duration</u>
Drill 1 Incident Action Plan/Fire Protection	15 minutes
Drill 1.1 Bus Orientation - Stabilization	30 minutes
Drill 1.2 Bus Windshield Removal	30 minutes
Drill 1.3 Front Door Removal	30 minutes
Drill 1.4 Bus Emergency Rear Exit Door	30 minutes
Drill 1.5 Seat Removal	1 hour
Drill 1.6 Bus Wall Opening	1 hour
Lunch	
Drill 2.1 Vehicle on Side	1 hour
Drill 2.2 Vehicle on Roof	1 hour
Drill 2.3 Vehicle on Vehicle or Object	1 hour
Drill 3.1 Helicopter Landing Zone	30 minutes
Drill 3.2 Auger and PTO Shaft	30 Minutes

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DAY THREE

<u>Event</u>	<u>Duration</u>
Repetition of Drills	2 hours
Drill 3.3 Tractor on Victim	45 minutes
Drill 3.4 Lighting Torches	1 hour
Lunch	
Drill 4.1 Truck Orientation-Stabilization	2 hours
Drill 4.2 Building Platforms	30 minutes
Drill 4.3 Truck Windshield Removal	30 minutes
Drill 4.4 Truck Door/Patient Removal/Termination	1 hour

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DAY FOUR

<u>Event</u>	<u>Duration</u>
Repetition of Drills	2 hours
Drill 4.5 Side or Rear Entry into Semi-Cab	1 hour
Drill 4.6 Tow Truck – Heavy Lifting	1 hour
 Lunch	
Repetition of Drills	3 hours
Final Practical Preparation	1 hour

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DAY FIVE

<u>Event</u>	<u>Duration</u>
Final IFSI Written Exam	2 hours
Lunch	
Final Practical	4 hours
Clean up & Tool Maintenance	2 hours