

# Program of Instruction

## Course Syllabus

**Course Title:** Grain Bin Rescue Awareness

**Course Duration:** 8 hours

**Program:** Agricultural Rescue

**Course Description:** The scope of this course is to educate students about grain storage facility types, their construction, and operating features. OSHA regulations, physical-environmental hazards and potential rescue resources are identified to ensure the response falls within the requirements minimizing fire department civil or criminal liability. Scene management and safety are discussed in conjunction with locating and making contact with the victim. Appropriate non-entry rescue efforts are identified. Various cutting tools are used in a simulated rescue to assist in the removal of grain from the system. Upon completion of this class the student will possess the ability to function as a support member to a rescue team conducting rescue operations at a grain storage facility.

**Course Requirements:** 100% Attendance as well as, completion of all practical exercises.

### **Course Policies:**

**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.

## **Course Content:**

### **Module: 1**

**Title:** Introduction

**Terminal Learning Objective:** At the conclusion of this module the student will explain the reasons that grain bin rescues require specialized training and techniques.

### **Module: 2**

**Title:** Grain bin rescue & the law

**Terminal Learning Objective:** At the conclusion of this module the student will explain how OSHA regulations and other standards impact grain bin rescue activities.

### **Module: 3**

**Title:** Grain handling & storage facility construction

**Terminal Learning Objective:** At the conclusion of this module the student will identify the types of grain handling and storage facilities, as well as, the possible rescue challenges presented with each type.

### **Module: 4**

**Title:** Hazard recognition

**Terminal Learning Objective:** At the conclusion of this module the student will explain the physical and environmental hazards encountered by both victims and rescuers during a grain bin rescue operation to properly protect them at a rescue incident involving a grain storage facility.

### **Module: 5**

**Title:** Types of Entrapment

**Terminal Learning Objective:** At the conclusion of this module the student will explain the three types of grain entrapment in order to identify the appropriate rescue techniques to use in each situation.

### **Module: 6**

**Title:** Size-up

**Terminal Learning Objective:** At the conclusion of this module the student will explain the three step process to size up a rescue incident at a grain storage facility.

### **Module: 7**

**Title:** Rescue Techniques

**Terminal Learning Objectives:** At the conclusion of this module the student will demonstrate safe rescue techniques equivalent to their current training level.

Module: 8

Title: Table Tops

Terminal Learning Objectives: At the conclusion of this module the student will demonstrate understanding of grain bin rescue situations as well as comprehension of the limitations of their current training level.

## Course Schedule

<b><u>Event</u></b>	<b><u>Duration</u></b>
Module 1 – Introduction	30 minutes
Module 2 – Grain Bin Rescue and the Law	30 minutes
Module 3 – Grain Handling & Storage Facility Construction	30 minutes
Module 4 – Hazard Recognition	30 minutes
Module 5 – Types of Entrapment	30 minutes
Module 6 – Size Up	30 minutes
Module 7 – Rescue Techniques (Classroom)	1 hour
<b>Lunch</b>	
Module 8 – Table Tops	1 hour
Practical – Rescue Techniques	3 hours

## Reference List:

US Department of Labor, *Code of Federal Regulations: 29 CFR 1910.134 Respiratory Protection*. Washington, D.C., Office of the Federal Register, National Archives and Records Administration, 2011

US Department of Labor, *Code of Federal Regulations: 29 CFR 1910.146 Permit Required Confined Space*. Washington, D.C., Office of the Federal Register, National Archives and Records Administration, 2011

US Department of Labor, *Code of Federal Regulations: 29 CFR 1910.147 Lock Out / Tag Out*. Washington, D.C., Office of the Federal Register, National Archives and Records Administration, 2011

US Department of Labor, *Code of Federal Regulations: 29 CFR 1910.272 Grain Handling Facilities*. Washington, D.C., Office of the Federal Register, National Archives and Records Administration, 2011

National Fire Protection Association *Standard 1001 Firefighter Professional Qualifications*, 2012

National Fire Protection Association *Standard 1006 Rescue Technician Professional Qualifications*, 2008

National Fire Protection Association *Standard 1670 Operations and Training for Technical Rescue Incidents*, 2009

Graham, Judith. (2011, March 8). Drowned in Corn: Grain bin deaths hit record. [Electronic Version]. *Chicago Tribune*.

Occupational Safety and Health Administration. (October 19, 2011). *Hazard Alert: Dangers of Engulfment and Suffocation in Grain Bins*. Retrieved November 7, 2012, from [http://www.osha.gov/SLTC/grainhandling/hazard\\_alert.html](http://www.osha.gov/SLTC/grainhandling/hazard_alert.html)

National Incident Management System, ICS-100 Training Program. (2012). *Federal Emergency Management Agency*. [www.fema.gov/training-0#item5](http://www.fema.gov/training-0#item5)