

University of Illinois Fire Service Institute

Course Syllabus

Course Title: Oil Well Firefighting

Course Duration: 4 Hours

Program: Oil & Gas

Course Prerequisites: None

Course Description:

The Oil Well Firefighting course provides students with knowledge about the history of oil drilling and production in Illinois. Information is provided about equipment used at drilling and production sites, as well as details about incidents that can occur at these sites. Students will gain practical skills for responding to drilling and production site emergencies by training in live fire drills.

Course Requirements:

Pre-Course Work: None

Course Work: Attend and participate in lectures and drills

Post-Course Work: None

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.

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.

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Course Content:

Module: 1

Title: Illinois Petroleum Resource Board

Terminal Learning Objective:

At the conclusion of this module, the student will explain the mission of the Illinois Petroleum Resource Board.

Module: 2

Title: History of Oil

Terminal Learning Objective:

At the conclusion of this module, the student will explain the history of oil wells.

Module: 3

Title: Oil Origin, Accumulations, and Characteristics

Terminal Learning Objective:

At the conclusion of this module, the student will summarize the composition of oil.

Module: 4

Title: Oilfield Equipment and Problems

Terminal Learning Objective:

At the conclusion of this module, the student will identify equipment used at oil well sites.

Module: 5

Title: Communication

Terminal Learning Objective:

At the conclusion of this module, the student will explain how to implement the incident management system at an oilfield incident.

Module: 6

Title: Strategic Modes

Terminal Learning Objective:

At the conclusion of this module, the student will extinguish fires at an oilfield incident.

Module: 7

Title: Tactics

Terminal Learning Objective:

At the conclusion of this module, the student will explain oil well firefighting tactics.

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Reference List:

The American Oil & Gas Historical Society. (2005). *The Petroleum Age*, 2(3).

Baker, Ron. (2001). *A Primer of Oilwell Drilling* (6th ed.). Petroleum Extension Service.

Baker, Ron. (1983). *The Production Story*. Petroleum Extension Service.

Responding to Oilfield Emergencies. (2000). Ohio Oil and Gas Energy Education Program.

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Course Schedule

| <u>Event</u> | <u>Duration</u> |
|--|-----------------|
| Module 1 – Illinois Petroleum Resource Board | 15 minutes |
| Module 2 – History of Oil | 15 minutes |
| Module 3 – Oil Origin, Accumulations, and Characteristics | 20 minutes |
| Module 4 – Oilfield Equipment and Problems | 20 minutes |
| Module 5 – Communication | 20 minutes |
| Module 6 – Strategic Modes | 15 minutes |
| Module 7 – Tactics | 15 minutes |
| Drill 6.1 – Horse Head (<i>one rotation of students</i>) | 30 minutes |
| Drill 6.2 – Lid Open with Fire | 30 minutes |
| Drill 6.3 – Oil on Fire in Berm Area | 1 hour |
