

Training and Consulting, LLC.

Chemistry of Pyrotechnics II Short Course

COURSE SYLLABUS

TITLE: Chemistry of Pyrotechnics II – Intermediate Course
LENGTH: 3.5 Days
PROPOSED DATE: 28 April – 1 May, 2020 (Tuesday - Friday)

OBJECTIVE:

Provide engineering and administrative professionals desiring to continue their education the opportunity to review and examine fundamental explosive concepts and applications. Students will have opportunity to examine and apply the chemistry and physics of energetic materials to technical and administrative challenges facing the explosives industry.

Training and Consulting LLC. is sponsoring this chemistry of pyrotechnics intermediate course in combination with explosive industry partners and specialists. The course is an extension of the Chemistry of Pyrotechnics: Basic Course presented by Oklahoma State University and continues in the popular Chemistry of Pyrotechnics tradition of hands-on learning and live demonstrations.

GENERAL TOPICS:

Day 1

- * Explosive substances and articles (ESA) review
- * Chemistry of Energetic Material Part I
- * Live Demonstration

Day 2

- * Ignition and Sensitivity of ESA
- * Manufacturing ESA
- * Chemistry of Energetic Materials Part II
- * Live Demonstration

Day 3

- * The Science of ESA
- * Managing Explosive Incidents
- * Post-blast Assessment and Incident Investigation
- * Live Demonstration (Anypyro Test Range, Eloy, AZ)

Day 4 Laboratory Demonstration

- * Live ESA Demonstration (Test Range, Mesa, AZ)

RESOURCES:

1. Third edition of “Chemistry of Pyrotechnics – Basic principles and theory”, by Dr. John A. Conkling and Mr. Christopher Mocella.
2. Second edition of “The Chemistry of Explosives”, by Dr. Jacqueline Akhavan, Cranfield University, UK
3. Explosives Engineering, Paul W. Cooper