

HOTZONE 2017

Pre-Conference Workshops

Thursday, October 19th

Off Site

HFD Incident Command Simulator (HFD Training Facility)

8 Hours

Students will be able to participate in an Incident Commander role and other job functions in a HazMat incident simulator. Several types of HazMat incidents from small to large will be introduced. Students will learn best practices and the importance of simulations during training to hone their skills.

Taught by Bill Desmond, Buck McClain, Rudy Mier, Tony Janke, Trey Bourgeois, Adam Aiken, Ed Williams (Lunch on Your Own)

(Seating Limited to 30 Students)

Fire Smoke - What's in it For Me? (Harris County Training Facility)

8 Hours

This session will provide participants with the information needed to understand the unique health effects caused by smoke exposures. The class will discuss basic combustion chemistry, the hazards of fire smoke and the lethal combination of carbon monoxide (CO) and hydrogen cyanide (HCN) related to smoke inhalation. The discussion will also highlight the critical need for prompt recognition and treatment of acute cyanide poisoning, as well as discuss the cyanide antidotes currently available, and their limitations. The class will include discussion on the current trends in overhaul procedures related to respiratory protection and monitoring.

Taught by Rob Schnepf, Chris Hawley, Jason Barnes (Lunch Provided)

Students Should Bring Their Turnout Gear

Taming the Tiger in the Tank - Tactics and Response to Anhydrous Ammonia (Harris County Training Facility)

8 Hours

Get prepared to handle ammonia incidents from start to finish, beginning with an overview of anhydrous ammonia properties, transportation/containers, types of releases, trouble shooting incidents, and response recommendations; control and containment tactics from both offensive and defensive perspectives. Lessons learned will be discussed through brief illustrations of case histories involving both stationary facilities and transportation incidents as well as live release training footage.

Following a safety briefing and drill prep, the second half of the day will be on the drill field with live agent (anhydrous ammonia) release training, primarily performing tarp and cover operations for control and containment. All students will receive a customized guide card for anhydrous ammonia which follows the sequence of a hazmat incident and provides specific reminders and information for anhydrous ammonia responses.

Taught by David Binder, Richard Browning, Harris County HazMat, David Corbin (Lunch Provided)

Houston Petrochemical/Industrial Marine Tour (POHA Fire Boats)

8 Hours

This workshop will provide an up close look at the many challenges that responders face in one of the world's busiest ports and the nation's most critically important, strategic Petrochemical Complex. The session will begin in the classroom and cover many of the maritime and industrial recognition and identification elements that will be on-viewed when the students travel to the Port of Houston Complex for the second part of the session and where they will participate in a waterside assessment aboard one of the new Houston Port Authority Fire Boats.

Taught by Bill Hand, Richard Lawhorn, Mike Oder, and the Port of Houston Fire Department (Lunch on Your Own)

(Seating Limited to 25 Students)

The Many Faces of Emergency Management

8 Hours

This unique pre-conference workshop will begin with a trip to the new Harris County EOC where students will be given a tour, a briefing about disaster management, and a demonstration of the capabilities of the newest and most advanced Emergency Operations Center in the State. The second stop will be at a large petrochemical plant in Deer Park for a briefing and tour of the company's state-of-the-art industrial Emergency Operations Center. While at the plant lunch will be provided. The last stop will be at Houston's premiere sports venue, NRG (formally Reliant) Stadium. The students will participate in a walking tour and briefing about the stadium's emergency management plans. Students are required to wear long pants, closed-toe shoes, and sleeved shirts. This workshop requires considerable walking. Cameras are not allowed inside the industrial facility.

Taught by Rick Anorga, Ray Cook, Mark Sloan, Misty Gunn, Francisco Sanchez, Ryan Boros (Lunch is provided)

(Seating Limited to 30 Students)

Thursday, October 19th

On Site

Field Identification Laboratory - Heinz 5-Step Method ©

8 Hours

This 8-hour "wet chemistry" course will consist primarily of hands-on lab work with liquid and solid unknown chemicals. The hazardous properties will be discussed as each sample is tested and analyzed. Participants will work in small groups and examine approximately 10-12 samples throughout the day. Samples will consist of common corrosives, oxidizers, flammable and combustible liquids and solids, and others. Physical properties such as appearance, vapor pressure and solubility will be considered as it relates to hazard determination and response tactics for hazardous materials team members. Safety, personal protection, and proper technique when working with chemicals will be emphasized and stressed during this qualitative analysis/bench chemistry workshop.

Basic Outline/Agenda:

- 0800-0900 Welcome/Introductions
- Chemical and Physical Properties of Hazardous Materials
- Field Identification Testing Equipment and Objectives
- 0915-1030 Safety and Personal Protection and Decontamination

- Flowchart, Reference Manual and Procedures
- Hands-On Testing/Discussion, Sample #1
- 1045-1200 Hands-On Testing/Discussion, Samples #2, 3 and 4
- 1200-1300 **LUNCH**
- 1300-1400 Classification of Matter/Chemical Families
- Hands-on Testing/Discussion, Samples #5 and 6
- 1415-1530 Hands-on Testing/Discussion, Samples #7, 8 and 9
- 1545-1700 Competency Exam: Final Samples (#10, 11 and 12)
- Clean-Up/Restore Equipment, Questions, Wrap-up

Taught by Brian Heinz, Jeanette Heinz

(Seating Limited to 30 Students)

Tactical Technician: Chemistry, Chemical Properties, Detectors/Identifiers, Tactical Decisions 8 Hours

Tactical decisions at hazardous materials emergencies are heavily influenced by the material involved. Chemistry determines how a product will behave, what container it is stored and transported in, how it reacts to its environment-both within and outside the container, how it can be detected and identified, and the tools and techniques that will ultimately be needed to mitigate the incident. This workshop will help make tactical decision-making pieces at hazardous materials incidents fall into place. Using chemical demonstrations, scenario-based exercises, hands-on activities, and chemical identification exercises using a variety of air monitoring and sample identification equipment including pH paper, M8 paper, oxidizer paper, multi-gas detectors, PIDs, Raman, FTIR, and GC/MS instruments. The class is highly interactive with students leading the direction of the class as we discuss multiple scenarios culled from the news and experience. Students will be prompted to formulate a risk-based response to the incident. As specific questions come up we will explain the chemistry involved in the behavior of the material, the technology used to detect and identify the material, the chemistry behind the container used in transport and storage, and the chemical knowledge needed to mitigate the incident safely. Chemical and physical property trends across chemical families will be illustrated using our Periodic Table of the Compounds™. Students will get hands-on experience with multiple and different chemicals during the workshop.

Taught by Richard Dufek, Steve Street

HazMat Medicine in the 21st Century 8 Hours

This course provides those medical personnel first-on-the-scene with basic information needed to recognize, evaluate, forecast and treat patients involved in the release of hazardous materials incident. It is intended for members of the Pre-Hospital Response Team at both the BLS and ALS Responder Level who may be called upon to provide assistance during such emergencies to safely deliver BLS/ALS treatment, triage at Hazardous Materials/Weapons of Mass Destruction Event. Looking at issues of function within the established incident command system. Exploring the medical response from the initial event, to the effects on body systems, injuries and treatment modalities, does this; the participant attains an appreciation for different medical approaches. Participants will work on scenarios in organizing the EMS response team, protecting response personnel, identifying and using medical response resources, decision-making and protecting the public.

Taught by Toby Bevelacqua, Richard Stilp

HazMat Officer Competency Lab

8 Hours

Experience the closest thing to running a hazmat incident without actually spilling a chemical. Responders are challenged with realistic scenarios presented using state-of-the-art simulation software and real-time atmospheric readings via wireless monitors. Development of an effective and safe Incident Action Plan (IAP) for a scenario. The Incident Command staff is located in a separate room while “hot zone” entries are made in an adjoining room. Each room offers a different realistic view of the incident using CGI simulations. Entry team members can see different views based on their movements around the “hot zone”. Atmospheric readings are sent to the entry team using wireless monitors that correspond to their movements. Communications by the entry team to the HazMat Team Branch Officer and then reported to the IC drives the decision process. Each scenario is completed with a brief review to discuss what went right and what could have been done differently. The scenarios get progressively more challenging and everyone has an opportunity to participate in various roles. This workshop is ideal for both current and future Hazardous Materials Branch Officers, as well as aspiring Incident Commanders, who would like to learn how to develop an effective IAP and hone their command and control skills by experiencing a complete “hands-on” incident in the classroom before being thrown into the mix at an actual incident.

Taught by Rick Emery, Greg Socks, Jason Waterfield, Ray Burt

(Seating Limited to 30 Students)

HazMatIQ: Above the Line/Below The Line Version 20

8 Hours

The HazMatIQ Above The Line / Below The Line System is a patented program developed by experienced hazardous materials responders, taught in a straight forward, easy to understand methodology. This cornerstone course, lays the foundation for all HazMatIQ Courses. Through the use of simplified flow charts, personnel are able to safely and efficiently respond to any known or unknown chemical/mixture. Students will be trained to size-up (physical state, hazards, initial hot zone, correct meters and PPE) of any chemical in seconds. The system use a streamlined methodology to build upon the initial sizeup, preparing them to immediately go to work when they arrive on a Hazardous Materials/WMD event.

Taught by Federal Resources

(Seating Limited to 30 Students)

(LEPC) Basic Cameo

8 Hours

This course covers the basic operations of the 4 CAMEO Suite programs that are routinely utilized during chemical incidents, along with CAMEO data sharing operations with Google Earth and Microsoft Office products. Participants will use CAMEO Chemicals to obtain SDS-style information for chemicals along with using the associated Reactivity Worksheet to determine potential reactions between identified chemicals. Participants will use ALOHA to examine potential downwind contamination zones and will plot multiple ALOHA plumes onto the MARPLOT program. Also, participants will review using the CAMEOfm program to manage Facility, Resources, and Special Location information. Participants may use this course as a prerequisite for the **“CAMEO, WISER, Google Earth, Microsoft Office, and ArcView for laptops, tablets, iPhones, and other devices”** course that is offered at this workshop.

COURSE OUTLINE:

- Overview of CAMEO Suite (CAMEO Chemicals, CAMEOfm, ALOHA, MARPLOT)
- CAMEO Chemicals and Reactivity Worksheet
- Basic MARPLOT Mapping for 1st Responders
- Basic ALOHA Air Dispersion Modelling for 1st Responders

- CAMEOfm tools for HazMat responses
- Capstone Project

Taught by Tom Bergman, Al Valerioti, Robert Bradley

Participants must provide their own laptop for this class.