

Street Smart Chemistry Plus

This 40-hour class is designed for to train Emergency Responders and other people who need to know the chemistry of hazardous materials. It addresses the need to know how to respond safely to incidents involving toxic and hazardous materials from a chemical perspective. It covers general and organic chemistry as well as such topics as toxicology, environmental monitoring, explosives, incendiaries and the chemistry of fire. This class doesn't teach "balancing equations" or how to do detailed calculations. Instead it concentrates on teaching the responder to better understand the hazards associated with families of materials and what potentially could happen at an incident. No prior knowledge of chemistry is assumed. A separate section deals extensively with the hazards associated with the possible use of Weapons of Mass Destruction in a domestic environment. This class covers the following concepts:

1. Atoms, elements and the periodic table
2. Forms and changes of matter
3. Formulas and bonding of inorganic molecules
4. Inorganic chemical formulas and nomenclature
5. Chemistry of the elements
6. Corrosive materials
7. Oxidizing agents
8. Water and air reactive materials
9. Organic chemistry
10. Waste streams
11. Toxicity
12. Air monitoring
13. Chemistry of fire
14. Pesticides
15. DOT chemistry
16. Biological agents
17. Nuclear agents
18. Incendiary agents
19. Chemical agents
20. Explosive agents

