

Lunch Summary: Developing a chemistry laboratory safety course

Lunch presenter: Ericka Huston, chemistry

In addition to Ericka Huston's presentation, the following comments and suggestions were discussed:

Students taking a chemistry course are often afraid of the chemistry lab because of the hazards involved. In biology courses, students are not as afraid of the hazard, but there are still risks that should be addressed by the instructor. There is often a hesitation to tell students about the hazards because students may become so anxious that they won't learn from the laboratory experiment. However, it is both ethically and academically important for instructors to inform students of the hazards involved and what precautions to take in order to dramatically reduce the risk involved with hazards.

"Scaling up" the experiment or changing an experiment in some small way is often the root cause of many lab accidents. Before changing any part of the laboratory procedure, students and instructors should do a risk assessment. It was noted that this could be framed in terms of "medicine," e.g., if a doctor prescribes a prescription which involves taking one pill a day, a student would not take 10 pills a day to get 10X the effect! Similarly with increasing reagents – risks can increase dramatically when the amount of a chemical is increased in an experiment.

It was suggested that the lab safety course could be beneficial for students and instructors in other disciplines. It is possible that the course could be converted to online modules that are self-paced. CIDDE can video tape the professional speakers and other class sessions and possibly even put them online for other instructors of lab courses. Furthermore, the university could give a certificate of completion to all students who complete the online safety training. It is very important for academic institutions to keep a record of who has completed safety training (for liability purposes).