Ask us about Customizable Courses at your site or ours!

Our Dose-Response Assessment course is available for private, on-site training.

The course can also be presented in a 3-day or 4-day format.

We will work with you to select the most relevant topics for your group from our full course outline.

For more information contact:
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Toxicology Excellence for Risk Assessment

August 17 - 21, 2020
at
Children’s Hospital Drug and Poison Information Center
Cincinnati, Ohio
5-day Course Information

Who should attend?
- Risk assessors and toxicologists who conduct, write, and/or review chemical assessments
- Risk managers or policymakers who use the results of chemical assessments and want to fully understand the processes involved in risk development.

Prerequisites
- Basic understanding of toxicology
- Interest in developing skills in human health risk assessment.

What you should bring
- Laptop
- Calculator

What you will learn
This course is a 5-day intensive hands-on training in hazard characterization and dose-response assessment. Both beginners and expert toxicological risk assessors will learn advanced methods, and enhance their understanding and skills in the basics. Course lectures will be supplemented with daily hands-on application exercises.

There will be homework
Make sure to reserve time each evening for the homework exercises.

Upon completion of the course, participants will be able to derive and evaluate risk values and supporting documentation for both non-cancer and cancer risk assessments.

The course is held Monday through Friday from 9:00am to 5:00pm. Lunch is included. Class usually ends early on Friday.

Course Topics

Non-Cancer and Cancer Risk Assessment Methods
- Critically analyze effect data
- Apply frameworks for evaluating mode of action (MOA) & human relevance
- Understand & apply toxicokinetic data in evaluating MOA & developing risk values
- Synthesize data for hazard characterization and critical effect identification
- Learn latest technologies in risk assessment

Dosimetric Adjustment Methods in Dose-Response
- Develop interspecies oral dose adjustments, conversions for cancer unit risk/slope factor and inhalation exposures, and calculate human equivalent concentrations (HECs) for particles and vapors
- Understand uses of PBPK modeling in risk assessment and issues for its application

Benchmark Dose (BMD) Modeling and Application in Risk Assessment
- Hands-on experience using BMD modeling for all models in EPA software (i.e., dichotomous continuous, cancer, nested)
- Apply BMD modeling, choose models & parameters, select data & run models, and select appropriate BMD as point of departure in a human health assessment

Principles for Application of Uncertainty Factors & Chemical Specific Adjustment Factors (CSAFs)
- Use of uncertainty factors by regulatory groups, use of data to support values other than defaults

CM/CEU points Available

Continuing Maintenance (CM) points are available from the American Board of Industrial Hygienists (ABIH)

Continuing Education Units (CEU) are available from the National Environmental Health Association (NEHA)