

AGENDA Day 1

Managing Uncertainty with Systematic Planning: (Developing Defensible Sample Designs for Environmental Decision- Making)

8:00 AM to 5:00 PM

8:00 AM – 8:30 AM **Introductions of Class Members**

The members of the class will be asked to introduce themselves, who they represent, and why they are attending and/or what they hope to get out of the training.

8:30 AM – 9:30 AM **Module 1: Introduction, Objectives, and Agenda**

Presenter: Sebastian Tindall

This module briefly discusses the DOE EM-3 mission to institutionalize a systematic planning process throughout the DOE complex and provides an overview and presents the day's agenda, the objectives of each of the day's modules, the contents of the Appendices, and the course evaluation form.

9:30 AM – 9:45 AM **Morning Break**

9:45 AM – 12:00 PM **Module 2: Key Concepts**

Presenter: Sebastian Tindall

Using innovative, interactive demonstrations, the class will become familiar with the important and often critical environmental sampling statistical concepts in order to develop defensible sampling designs.

12:00 PM – 1:00 PM **LUNCH BREAK**

1:00 PM – 1:55 PM **Module 3: How Many Samples Do I Need – Part 1**

Presenter: Sebastian Tindall

Sampling and analysis methods are used to estimate the true condition of site. However, estimation introduces uncertainty into the decision-making process. This uncertainty can be managed through planning so that you can “do it and prove it” efficiently and effectively. Concepts in Module 3 include census versus estimates and the DPGD.

1:55 PM – 2:00 PM **1st Afternoon Break**

2:00 PM – 2:55 PM **Module 4: How Many Samples Do I Need – Part 2**

Presenter: Sebastian Tindall

Concepts in Module 5 include the UCL, sample representativeness, and need for knowing the distributions of contaminants in formulating sampling designs are presented in this module.

2:55 PM – 3:00 PM **2nd Afternoon Break**

3:00 PM – 3:55 PM **Module 5: How Many Samples Do I Need – Part 3**

Presenter: Sebastian Tindall

Gy's Sampling Theory, the concept of Fundamental Error, and an introduction to Multi-Increment Sampling are presented in this module.

3:55 PM – 4:00 PM **3rd Afternoon Break**

4:00 PM – 4:55 PM **Module 6: Multi-Increment Sampling**

Presenter: Sebastian Tindall

Multi-Increment Sampling is presented in this module in more detail, with examples.