

## This course teaches the

foundational knowledge required to become an effective member of a risk assessment and environmental management team. This capstone course allows people to develop the skills needed to apply science to the world of environmental management. It is focused on developing a holistic, health protective, cost effective approach that allows people to prepare for the challenges presented while solving real world problems. The course material discusses how to utilize resources efficiently and to approach issues in effective, creative, and scientifically sound ways.

**Those attending the class** will develop skills that allow them to help protect the environment, develop organizational skills, become skilled team members, learn approaches to problem solving, develop communication skills, learn ways to protect public health, and receive credentials and CEUs that will help to advance their careers.

**For more information visit us at:**  
**Toxedfoundation.org**

## PRIMARY INSTRUCTORS

**Michael Dourson**, PhD., DABT, FATS, FSRA - Dr.

Dourson is one of the most prominent toxicologists in the United States. He is currently the Executive Director of the Toxicology Education Foundation, and President of Toxicology Excellence for Risk Assessment (TERA). His career is long and broad. He was one of the originators of the US EPA IRIS toxicology database. He has developed meaningful dose values for many chemicals, has created and worked with many national toxicology groups, and has provided assistance to government and industry.

**William Hayes** - A former university professor and environmental manager. His career encompassed all of the major aspects of environmental management with focus on risk assessment and organizational development.

**Max Michael** - As an emergency response manager, Mr. Michael was faced with many unique challenges and situations requiring fast, high-quality decision making. He has published games throughout his career and is currently the owner and president of Stratamax Games.

## Contact us:

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TEF is a 501c3 nonprofit corporation



Toxicology  
Education  
Foundation

*Presents:*

## 21<sup>st</sup> Century Environmental Management - Risk Assessment and Risk Management



This course will help build post-class collaborative relationships between diverse organizations.

Those taking the course will learn a method for creating high quality, productive interactions with stakeholders, and for developing a work process that improves the quality of decision making.

Risk assessment is a multi-faceted process that requires many skills.

## Key Points About Our Course

Highly experienced instructors. The course can be tailored to help meet the individual needs of each group. We will provide certification and CEUs to enhance the credentials of attendees. This course will help build post-class collaborative relationships between diverse organizations. Those taking the course will learn a method for creating high quality, productive interactions with stakeholders, and for developing a work process that improves the quality of decision making. Risk assessment is a multi-faceted process that requires many skills. It must be organized and managed well or it becomes an expensive, time consuming, and inefficient process that does not meet the needs of the stakeholders.

### COURSE CONTENT

There are two versions of this course:

#### **Follow-up to the Toxicology Excellence for Risk Assessment (TERA) Dose-Response Assessment Boot Camp.**

This version delves into specific applications of toxicology required during each part of the risk assessment. Which calculations are appropriate? Where do you obtain input information? How do you screen your input data to ensure high quality? How will you apply this to the process? It then covers the topics needed to build your team, manage the project, and have effective communication. It includes a section on emergency responses and the differences present those situations.

### STAND-ALONE COURSE

There are no prerequisites for this course. This version includes substantial amounts of toxicology to introduce students to the basic calculations needed for a quality risk assessment. This is followed up with segments on effective communication methods, project management, team building, sample design, and several other topics that are needed to complete a risk assessment in a timely, cost-effective manner.

Each of the topics is focused on how that subject applies to risk assessment. Some examples are:

**Toxicology** - What type of calculations will be most useful, what criteria should be used when selecting toxicological studies, how can a range of values be calculated, how can this range be applied to decision making?

**Risk Communication** - Effective Communications are a necessity for achieving risk management goals. A specific subset of communication skills is required to help prevent delays, misunderstandings, lawsuits, and all of the other things that can delay a project.

**Risk Management** - How can risk management be applied to reduce costs? What are some useful risk management methods? One module discusses emergency response during an epidemic and the challenges created by that situation.

**Games and Exercises** - Games and exercises with specific learning objectives were developed for this class by Max Michael, a professional game designer and president of Stratamax games, who is also a former emergency response manager. These games reinforce lecture points and keep students focused and interested by requiring them to apply the concepts just learned.

**Multiple Learning Methods** - By varying the teaching methods, it is much easier to create a quality learning experience. Teaching methods include lectures, activities, games, group projects, student presentations, and more.

**Building and Managing a Team** - Risk assessment and implementation is not a one-person job. Doing this well requires a team having a variety of skills. Planning, implementation, tracking, and follow-up are all part of the process, and are necessary to reduce the cost and duration of a project.

**Local and Regional Topics** - Each class will include a module taught by a guest with in-depth knowledge of local and regional issues. What laws and policies apply? Who must be contacted about various activities? What are some of the unique limitations and restrictions in the area? How to find local resources, and other

