

Investigating outbreaks caused by non-infectious, toxic agents requires some unique considerations and skills that are different from those used to investigate infectious disease outbreaks. To help public health agencies investigate these outbreaks, CDC's National Center for Environmental Health (NCEH) has developed a Toxicological Outbreak Investigation course. The goal of the Toxicological Outbreak Investigation Course is to provide information, resources, and learning activities to impart the knowledge and skills needed to investigate a toxicological outbreak to public health practitioners who investigate outbreaks. The Toxicological Outbreak investigation toolkit is a collection of sample customizable documents that can be used during an outbreak investigation. This toolkit is available for download [zip icon](#).

Module Title and Description
Module 1 Title and Description Course Introduction and Overview In this module, we will define what a toxic agent is and provide a brief overview of the course, and describe the contents of the Toxicological Outbreak Investigation Tool Kit. The module slides are available for download: Module 1 pdf icon [PDF – 1 MB]
Module 2 Title and Description Toxicological Principles In this module, we will consider what a toxic agent outbreak looks like and the characteristics to look for when determining whether one is taking place. We will define toxidromes and discuss the various factors that affect toxicity. We will also examine two key concepts used by toxicologists. The module slides are available for download: Module 2 pdf icon [PDF – 1 MB]
Module 3 Title and Description Toxicological Laboratory Principles In this module, we will explain the importance of early sample collection and the information needed in sample collection protocols. We will also discuss what needs to be considered when a need for laboratory testing is identified and the collection of comparison samples. The module slides are available for download: Module 3 pdf icon [PDF – 720 KB].
Module 4 Title and Description Analyzing and Interpreting Laboratory Results In this module, we will discuss how to analyze and interpret laboratory results. We will define what the limit of detection (LOD) is, and identify the constant values that can be substituted for values lower than the

LOD. We will look at examples of how adjustments may be made to laboratory results. We will also discuss log-normal distribution data and describe the information needed to interpret laboratory results. The module slides are available for download: Module 4 pdf icon[PDF – 1 MB].

Module 5 Title and Description Steps of a Toxicological Outbreak Investigation – Part 1 | Part 2 | Part 3 In this module, we will discuss the steps in an outbreak investigation. The module slides are available for download: Module 5 pdf icon[PDF – 3 MB]

Module 6 Title and Description Domestic Case Study In this module, you will have the opportunity to practice what you have learned in Modules 1-5 by completing a domestic case study. The module slides are available, for download: Module 6 pdf icon[PDF – 859 KB]

Module 7 Title and Description International Case Study In this module, you will have the opportunity to practice what you have learned in Modules 1-5 by completing an international case study. The module slides are available, for download: Module 7 pdf icon[PDF – 2 MB]

PROGRAM DESCRIPTION: The Toxicological Outbreak Investigation course is an online course that includes seven modules. The goal of the Toxicological Outbreak Investigation Course is to provide the skills and strategies needed to investigate a toxicological outbreak, which would improve the competence and performance of the workforce, and allow timely and efficient response to these outbreaks, which will ultimately save lives and prevent future outbreaks.

OBJECTIVES: At the conclusion of the session, the participant will be able to:

FACULTY/CREDENTIALS: **ORIGINATION DATE:** January 01, 2020 **RENEWAL DATE:** January 01, 2022 **EXPIRATION DATE:** January 01, 2024 **URL:** <https://www.cdc.gov/nceh/hsb/elearning/toi/>

HARDWARE/SOFTWARE: The course can be accessed at the following link: <https://www.cdc.gov/nceh/hsb/elearning/toi/>. The learner will need internet access. There are no audio requirements for the course.

MATERIALS: Participant's guide on website.

TARGET AUDIENCE: Epidemiologists, general public health professionals

PREREQUISITES: The target audience includes public health practitioners who investigate outbreaks. The prerequisite skills include prior experience

in investigating outbreaks or potential to investigate outbreaks as part of job. The prerequisite knowledge includes basic knowledge of epidemiological principles.

FORMAT: Web-based CONTACT INFORMATION: Johnni Daniel, (770) 488-3415

ACCREDITATION STATEMENTS: In support of improving patient care, The Centers for Disease Control and Prevention is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team. CEU: The Centers for Disease Control and Prevention is authorized by IACET to offer 0.3 CEU's for this program. DISCLOSURE: In compliance with continuing education requirements, all presenters must disclose any financial or other associations with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters as well as any use of unlabeled product(s) or product(s) under investigational use. CDC, our planners, content experts, and their spouses/partners wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters. Planners have reviewed content to ensure there is no bias. Content will not include any discussion of the unlabeled use of a product or a product under investigational use. CDC did not accept commercial support for this continuing education activity. Instructions for Obtaining Continuing Education (CE) In order to receive continuing education (CE) for WB4195-Toxicological Outbreak Investigation Course please visit TCEO and follow these 9 Simple Steps before January 01, 2024. Complete the activity Complete the Evaluation at www.cdc.gov/GetCE Pass the posttest at 80% at www.cdc.gov/GetCE FEES: No fees are charged for CDC's CE activities. References:

