

Division of
Consolidated
Laboratory Services:

**Identifying
Content and
Audience**

APHL Grant
Reports:
Developing Online
Training



Crystal E. Barrett MAED/T, MLS(ASCP)^{cm}
Laboratory Training Coordinator
Commonwealth of Virginia

NLTC 9, June 2017

Division of Consolidated Laboratory Services (DCCLS)



Richmond, Virginia

Acknowledgements

- CDC
- APHL
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- **Division of Consolidated Laboratory Services Subject Matter Experts (SME)**
 - **Angela E. Fritzinger, Ph.D.**, Deputy Director
 - **LaToya Griffin-Thomas, Ph.D.**, Lead Scientist, Bioterrorism/Special Pathogens Response Coordinator
 - **Christopher Retarides, Ph.D.**, Lead Scientist ERLN / Biomonitoring
 - **Christopher Waggener, Ph.D.**, Lead Scientist, Food Emergency Response Network Training Coordinator
 - **Shane Wyatt**, Lead Scientist, CT, LRN-C
- **DCLS Support**
 - **Ellen Basinger**, Quality, Safety, Training Manager
 - **Denise M. Toney, Ph.D., HCLD (ABB)**, Laboratory Director

Our Project: Audience

- Innovative Online Preparedness Training
- Address a current need
 - What's already out there?
 - Who are our customers?
 - What is the knowledge gap?
 - What can we teach online?
 - How can we deliver this online?



Our Project: Audience

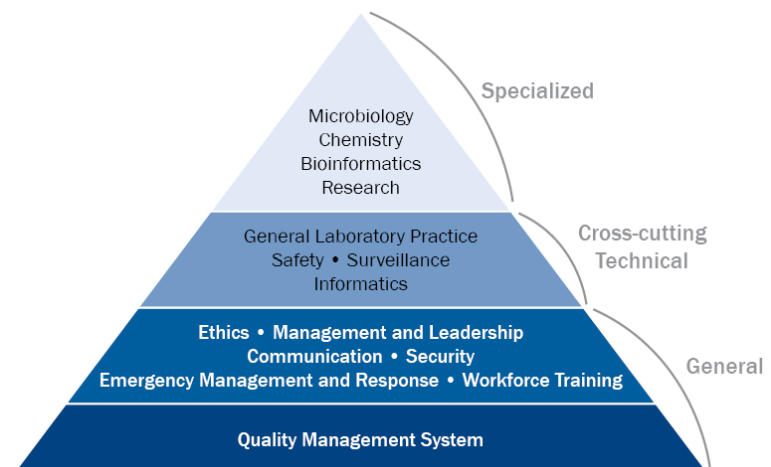
- Consider modality, access, capabilities
- Identify roles and responsibilities
 - Specific target
 - General audience
- Survey stakeholders
 - Survey tools
 - Interviews
- Align to content
- Project requirements

Our Project: Content

- Identify gap in Knowledge, Skills, Abilities (KSAs)
 - Needs assessment
 - ❖ System-wide, task related, individual
 - Subject Matter Experts (SMEs)
 - Stakeholders
 - ❖ In house, customer base, intended audience
 - Project requirements

Our Project: Content

- Experiences, stories
 - Ebola, Zika, anthrax, raw milk, suspicious package, etc.
- Big wins, successes
 - Risk mitigation
- Lessons learned, changes
 - Communication
 - Drills and Exercises
- Existing resources
 - PHL Competencies
 - Forms, templates, protocols



Source: APHL website

Our Project: Content

- Actionable objectives toward competencies
 - Specific, measurable, attainable, relevant, time-based (SMART)
- **Risk Assessment:** Recognize potential vulnerabilities and risks in your work area (PHL Competencies: EMR 1.01)
- **Identification of key partners:** Describe partners and their relationships with the institution (PHL Competencies: EMR 2.05)
- **Emergency Response Training:** Participate in emergency response training, exercises, and drills (PHL Competencies: EMR 2.03)



Our Project: Content

- Consider modality, audience, requirements
- Time considerations
 - Development, testing, delivery
 - Audience completion
- Software limitations
- LMS limitations

Our Project

“What are the key components you need in place to rapidly respond to the next emerging threat?”



THANK YOU



Crystal E. Barrett MAED/T, MLS(ASCP)^{cm}

Laboratory Training Coordinator

Commonwealth of Virginia

Division of Consolidated Laboratory Services

600 North 5th Street, Rm.139

Richmond, VA 23219

Phone: (804) 648-4480 ext.128

Email: crystal.barrett@dgs.virginia.gov

NLTC 9



National Laboratory Training Conference



APHL Developing Online Training: Timeline and Resources

Tracy Hoke, BT Coordinator

North Dakota Department of Health, Division of Laboratory Services



NLTC 9



National Laboratory Training Conference

Objectives

- Obtain funding, approving contracts
- Research and development of topics
- Evaluate and Purchase Software and Equipment
- Learn to utilize software and equipment
- Implement the course

Obtain funding

- RFP was accepted December 21, 2016
- Work order agreement received from APHL March 1, 2017
- Changes made by ND DoH sent to APHL March 20, 2017
- Signed work order agreement received from APHL April 5, 2017
- Grant number received from ND DoH accounting department April 27, 2017

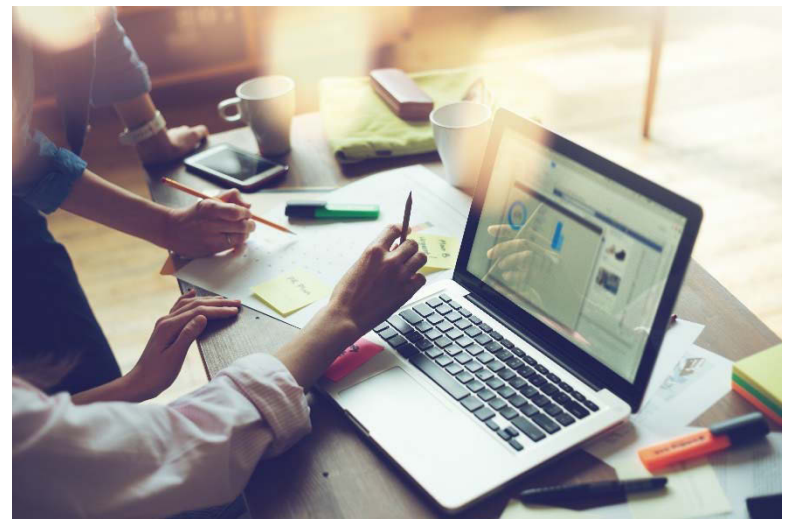
NLTC 9



National Laboratory Training Conference

Research and development

- 6-12 months to research and develop your content
- We had some of our content from the previous year
- Utilized 2 contractors to develop two of the courses



Evaluate Software and Equipment

- Evaluate software programs
 - TrainCaster, Configio, Lectora
 - Free demos and evaluation tools
 - Photo subscription
- Equipment
 - Advice from others in the department



Purchase of software and equipment

- Some vendors were more difficult to work with than others due to our tax exempt status
- We were able to find alternate vendors and get our purchases finished by June 1



Learn to use software and equipment

- Learn how to navigate through new software and use any new equipment/peripherals that you have purchased
- New microphones were purchased and they were very user friendly and easy to use



NLTC 9



National Laboratory Training Conference

Implementing the course

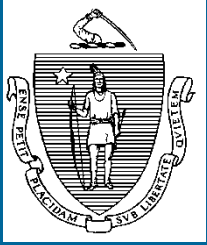


NLTC 9



National Laboratory Training Conference





Massachusetts Department of Public Health
Bureau of Infectious Disease and Laboratory Sciences

Chain of Custody & Evidence Handling: Best Practices for LRN Laboratory Personnel

Cheryl Gauthier, MA, MT (ASCP)
Shoolah Escott, MS, MT (ASCP)
Massachusetts State Public Health Laboratory

Course

- We decided to use the Chain of Custody course that Cheryl was already offering at the MA SPHL.
- Annual Chain of Custody training is required under the PHEP grant so this is needed by all LRN labs.
- The material was vetted by the FBI, APHL, CDC, CT LRN laboratory and the MA State Laboratory Director.

Development Team

➤ MA:

- Cheryl Gauthier – course SME
- Shoolah Escott – training logistics

➤ CT:

- Diane Noel – SME – materials reviewer
- Bobbie Macierowski – point person for CT
- TRAIN Administrator
- Captivate Consultant

Decisions

- Collaborated with CT to use their TRAIN system.
- A TNA wasn't needed since the course is required by the PHEP grant.
- Due to the tight timeline we decided to:
 - Hire a consultant to convert the PPT to an online format (Captivate)
 - Not to offer CEUs

Consultant

- We talked with our eLMS administrator and found out that DPH had a relationship with a consultant that had already done online courses for them.
- He is a Captivate developer and very responsive.
- We had a call with him and he said he could turn around our PPT within 2 -3 weeks.

Consultant cont.

- Then it moved along very quickly.
- 1st step was for him to script out the course.
- 2nd step was to add in the actual course material (slides/photos).
- 3rd step was to get it SCORM compliant and loaded on TRAIN
- 4th step was Beta testing and revisions

Challenges

- Consultant:
 - Approval to use him
 - Logistics of paying him
- CT TRAIN Administrator:
 - Using CT's TRAIN system - Not under our control
 - Not always responsive
 - Not available – no back-up
 - Took many emails back and forth

Challenges cont.

- Beta Testing:
 - Needed both experienced and inexperienced testers from LRN-B and LRN-C labs
 - We had 17 beta testers
 - Received feedback and made changes
 - Didn't give us back full info/no forms
 - Took much longer to complete
- Marketing:
 - Brochure approvals
 - APHL and CDC to send out





Developing an Online Biosecurity Training Course for Clinical Laboratories

Drew Fayram, M.S.
Safety Officer

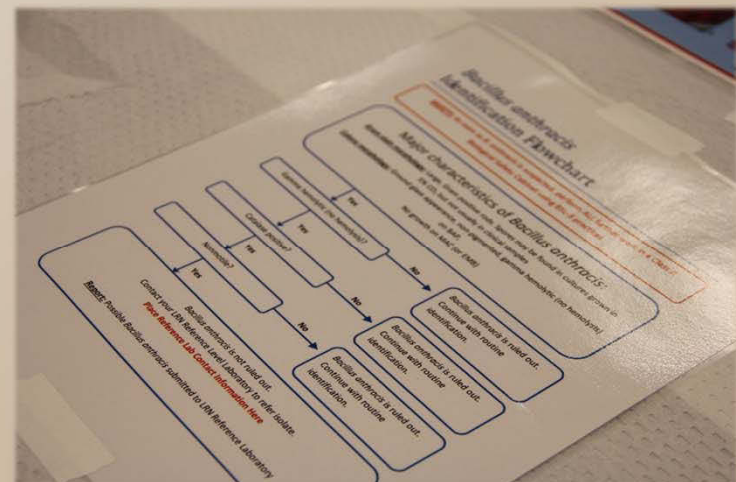
June 28, 2017

Iowa's Environmental & Public Health Laboratory



Identifying a need

- Sentinel Lab Rule Out of Potential Agents of Bioterrorism: Wet Workshops
 - Packed agenda
 - Emphasis on ASM Rule-out Guidelines
 - Only briefly cover biosafety and biosecurity





Limited biosecurity resources for clinical labs


- ELC Cooperative Agreement
 - Emphasis on biosafety and biosecurity
- Current CDC Train Courses

TRAIN
HOME COURSE CATALOG YOUR LEARNING CALENDAR HELP

Biosecurity and Biosafety

[← Back](#) [→ Launch](#) [Save For Later](#)

Web-based Training - Self-study ID 1056335 Skill level: Intermediate
★★★★☆ 4.46 (26 Ratings)



Overview

In this module we investigate the standards and procedures in place for *biosafety*—that is, reducing the risk that a disease-causing agent infects a laboratory worker or escapes the laboratory and infects the community outside the lab and *biosecurity*—that is, defense against the deliberate release of infectious agents from the confines of the laboratory for malicious purposes. We will look carefully at the application of special equipment, physical protection, best practices, and techniques for achieving a safe and secure laboratory environment.

Lesson 4-1: Biosafety and Biosecurity
Lesson 4-2: Acquiring Bio-Weapon Capability
Lesson 4-3: Terrorist Biosecurity Violations
Lesson 4-4: Preventing Biosecurity Breaches

TRAIN
HOME COURSE CATALOG YOUR LEARNING CALENDAR HELP

Introduction to Biosecurity & Agroterrorism

[← Back](#) [+ Register](#) [Save For Later](#)

Web-based Training - Self-study ID 1018537 Skill level: Introductory
★★★★☆ 4.50 (6 Ratings)



The online course "Introduction to Biosecurity & Agroterrorism" gives a brief overview of the various types of biosecurity and agroterrorist threats, and their effects. Epidemiological clues leading to early detection of a biosecurity breach are also discussed.

The course is approximately 17 minutes long.

The learning objectives for this course are that participants will be able to:

1. Define biosecurity and agroterrorism; and
2. Identify at least three targets vulnerable to biosecurity breaches; and
3. Identify at least three potential epidemiological clues to an agroterrorist attack.

Resources

- Development team
 - **Grant PI**
 - Wanda Reiter Kintz, PhD, SHL
Director of Preparedness
 - **Web content designer**
 - Bill Wyckoff, SHL Web
Administrator
 - **External reviewer →
Content developer/SME**
 - Mike Pentella, PhD, UI CPH
Clinical Professor
- Other resources
 - E-Learning Software

Biosecurity: Protecting Assets



Biosecurity Risk Assessment

What are the primary steps?

Identify all hazardous assets

Identify possible threats

Assess current vulnerability





Online Training at SHL

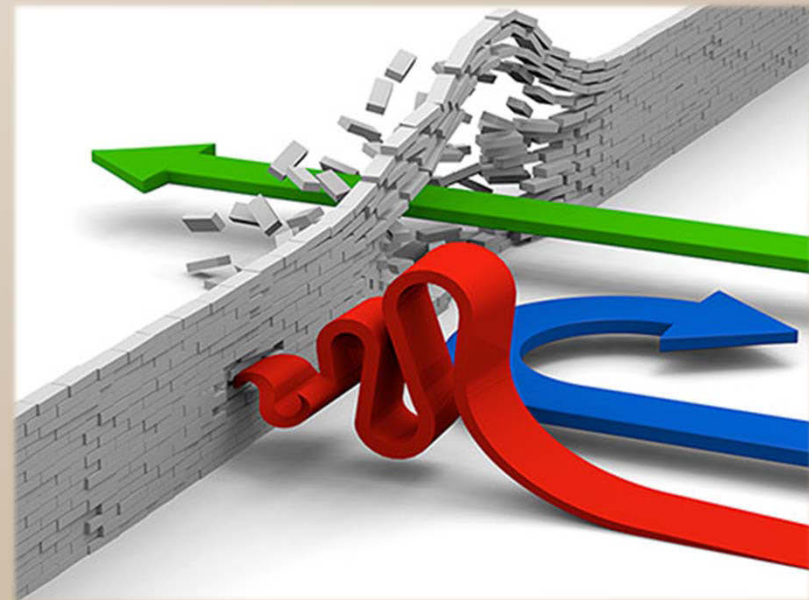
- Developed by SHL staff and collaborators
- Host sites
 - SHL homepage
<http://www.shl.uiowa.edu/>
 - Prepare Iowa LMS
<https://prepareiowa.training-source.org>



The screenshot displays the State Hygienic Laboratory website. At the top left is the logo for the State Hygienic Laboratory at The University of Iowa. The navigation bar includes links for Home, Contact, a Google Custom Search box, and a Jobs@SHL link. Below the navigation is a large green banner with the word "COURSES" and a photograph of a person in a lab coat working at a workstation. A sidebar on the left lists various categories: About the SHL, Environmental, Newborn Screening, Disease Control, Education / Training (with sub-items like Internships & Practicums, Fellowships, Opportunities, Tools, and Sentinel Lab Training), Lab Certification Programs, Publications, News, and Center for the Advancement of Laboratory Science. The main content area features several sections: CLIA Compliance (with links for Tools for Proficiency Testing and Mission Possible: Understanding Training and Competency Assessment), General Training (with links for Anatomy of a Foodborne Outbreak, Chain of Custody, Influenza Surveillance, Introduction to the Public Health Laboratory, Using the CDS Courier Service, and PDF- CDC specimen collection protocol), Bioterrorism Rule-Out Series (with links for BT 1.1 Bacillus anthracis, BT 1.2 Brucella species, BT 1.3 Francisella tularensis, BT 1.4 Burkholderia pseudomallei, and BT 1.5 Yersinia pestis), Mini-Training (with links for ID: 10 common organisms, Quadrant Streaking, and Organophosphates), and Prepare Iowa (with links for The Role of Sentinel Labs in Emergency Response, Lab biosafety: avoiding Laboratory Acquired Infections (LAI), and Electronic RT workshop for sentinel labs). At the bottom, there are social media sharing icons (Facebook, Twitter, Print, Email) and contact information for three locations: Coralville, Ankeny, and Lakeside, including addresses, phone numbers, and hours of operation.

Commonly encountered obstacles

- Vision
 - What do you want your product to look like?
 - Do visions align?
 - Objectives
 - Content
 - Depth
 - Presentation style
 - Length



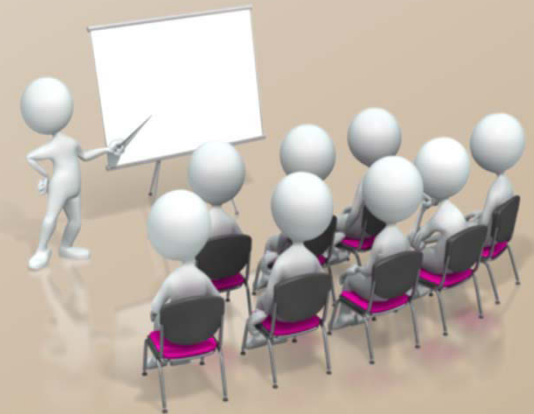
Commonly encountered obstacles

- Developing adult learning can be tricky
 - Presume background knowledge but not competency
 - Typically time-limited
 - Short attention span if too boring
 - Internet access during working hours?



Commonly encountered obstacles

- Live presentation vs. scripted course
 - Live presentation is more familiar to most of us
 - Use slides as speaking cues
 - React to audience expressions
 - Respond to questions in real time
 - Scripting is an art
 - Script should complement slide content
 - Anticipate questions






Look for our course!

Biosecurity for
Clinical Laboratories


The Infamous Examples




Dr. Arthur Waite, dentist
Intentional poisoning

Agent: Diphtheria, anthrax, tuberculosis, influenza, arsenic

Victims: 2



1916

A horizontal timeline arrow pointing to the right, with a vertical line connecting the year 1916 to the portrait of Dr. Arthur Waite.

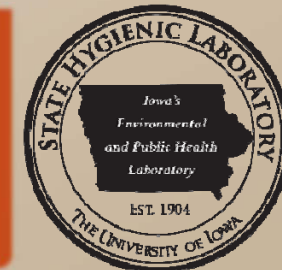
- Completion later this summer
- Access through:



<https://www.train.org>



<http://www.shl.uiowa.edu/>





Thank you!

Drew Fayram, MS, Safety Officer
State Hygienic Laboratory at the University of Iowa
drew-fayram@uiowa.edu

Mission: The State Hygienic Laboratory at the University of Iowa protects and improves quality of life by providing reliable environmental and public health information through the collective knowledge and capabilities of our organization.