Request for Proposals (RFP):
Course Programmer for Laboratory Curriculum Framework Courses

September 3, 2019

Submissions due to Robyn Randolph (Robyn.Randolph@aphl.org)
via: The Association of Public Health Laboratories, Inc.
8515 Georgia Avenue, Suite 700
Silver Spring, MD 20910

The development of, and the projects anticipated in, this RFP are supported by Cooperative Agreement Number 1U18FD006471 between the U.S. Food and Drug Administration (FDA) and the Association of Public Health Laboratories, Inc. The contents of this RFP are solely the responsibility of the authors and neither represent the official views of FDA nor reflect FDA’s endorsement of a product or procedure.

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Summary

The Association of Public Health Laboratories, Inc. (APHL or the Association), in collaboration with the U.S. Food and Drug Administration (FDA) Office of Training Education and Development (OTED), the Association of Food and Drug Officials (AFDO), and the Association of American Feed Control Officials (AAFCO) is developing a Human and Animal Food Laboratory Professionals Curriculum Framework. APHL and its partners are creating courses based on the competencies developed on the curriculum framework. APHL is seeking a course programmer for the development of online courses in Lectora Inspire 18.

Through this Request for Proposals (RFP), APHL seeks to identify a company or individual who can create the first two units of a web-based course that:

- Is built in Lectora Inspire 18
- Meets Section 508 compliance standards
- Includes interactivities as indicated in storyboard
- Meets Sharable Content Object Reference Model (SCORM) compliance

Background

APHL is a non-profit organization that works to safeguard the public’s health by strengthening public health laboratories (PHLs) in the United States and globally. APHL is organized under the laws of the United States of America’s District of Columbia, with its headquarters office in Silver Spring, MD. The Association’s members include state and local laboratories, state environmental and agricultural laboratories and other government laboratories that conduct testing of public health significance. APHL is recognized as tax exempt in the United States under Section 501(c)(3) of the U.S. Internal Revenue Code. Its work on behalf of public health labs spans more than 60 years.

In collaboration with its members, APHL advances laboratory systems and practices and promotes policies that support healthy communities globally. The Association serves as a liaison between the public health laboratories and federal and international agencies. It ensures that the network of public health laboratories has current and consistent scientific information in order to be ready for outbreaks and other public health emergencies.

The APHL Food Safety Program currently implements workforce development projects for human and animal food testing laboratories in the United States. APHL supports this initiative through Cooperative Agreement Number 1U18FD006471 (the Cooperative Agreement, CFDA No. 93.103) with the FDA. APHL is working in coordination with other member-based organizations to develop a comprehensive, career-spanning curriculum framework for human and animal laboratory professionals, as well as develop training materials to deliver this information to laboratorians.

Eligibility

Interested parties must submit a proposal to APHL that provides all of the information specified in the Proposal Submission section below. In order to be considered for funding, an applicant must ensure
APHL has its complete proposal by no later than the Proposal Due Date specified in the Anticipated RFP Schedule section below. Applicants will find proposal submission information in the Response Submittal section below.

**Anticipated RFP Schedule**

Proposals are due to the individual(s) specified in the Final Response section of this **RFP by 5:00 pm Eastern Standard Time (EST) on October 3, 2019.** APHL anticipates the following schedule for the entire competitive bidding process:

- **September 43, 2019**  
  APHL issues RFP

- **September 13, 2019**  
  Letter of Intent due to APHL by 5:00 pm EST

- **September 20, 2019**  
  Last day to submit questions (exceptions may be granted at APHL’s sole discretion)

- **October 3, 2019**  
  *Complete RFP responses due to APHL by 5:00 pm EST*

- **October 7, 2019**  
  APHL completes the evaluation process and contacts winning/selected applicant

- **October 9, 2019**  
  APHL publicly announces the names of the selected applicants on its procurement website, [www.aphl.org/fp](http://www.aphl.org/fp)

- **October 18, 2019**  
  Anticipated start date of LCF course programming project

**Response Submittal**

**Confirmation of Intent to Respond**

APHL requests that prospective applicants submit a brief email statement indicating intent to submit a proposal by **no later than 5:00 PM EST on September 13, 2019.** The letter of intent should be emailed to [Robyn.Randolph@aphl.org](mailto:Robyn.Randolph@aphl.org). While the letter of intent is not binding and does not enter into the review of the RFP, the information that it contains allows APHL’s evaluation team to plan the contract development and review process. Potential applicants must include the name of the organization or individual that will submit the proposal in their email.

**Final Response**

APHL must receive a complete proposal by no later than **5:00 PM EST on October 3, 2019.** Applicants may send proposals by the following methods:

Via email to [robyn.randolph@aphl.org](mailto:robyn.randolph@aphl.org); or

Via certified, registered or express mail through the postal service or via trackable mail delivery services provided by DHL, FedEx, and UPS, addressed to:
APHL will send an email acknowledging the receipt of your proposal. If you do not receive an acknowledgement within 48 hours, please email the points of contact below to confirm receipt.

Regardless of the delivery method, APHL must receive all responses by 5:00 PM EST on October 3, 2019. It is the applicant’s responsibility to ensure that the proposal is received at APHL by this deadline.

APHL may terminate or modify the RFP process at any time during the response period.

Questions

Please direct all questions regarding this RFP or its proposal requirements via email to Robyn Randolph at robyn.randolph@aphl.org, with a copy to Catherine Johnson at catherine.johnson@aphl.org. A table of Frequently Asked Questions is included as Appendix C.

A member of APHL’s Food Safety staff will respond directly to the questions on an individual basis as questions are received. While APHL will endeavour to answer questions within one business day of receipt, additional time may be needed depending on the issue raised.

APHL should receive all questions by 5:00 pm EST on September 20, 2019. APHL is unlikely to answer any question received after this deadline, but it will have discretion to do so if APHL’s Food Safety staff reasonably feel that the question raises a substantial issue that could affect multiple applicants, and may be answered without impacting the proposal submission and review process. Should APHL opt to answer any late questions, APHL will post the question and answer to APHL’s procurement website and will not respond directly to the sender.

Scope and Approach

The organization or individual engaging in this project must provide the capabilities to work from the early stages of the course design through full development, including design implementation and evaluation strategies.

APHL has included a sample Course Design Document (CDD) upon which these courses will be based. The selected applicant will program the first two units of a four-unit online course, Laboratory Safety. There will be an opportunity to complete programming in the future for the additional two units in Laboratory Safety, as well as additional courses, as budget and time allow. A draft project approach is also included and provides initial learning objectives and content overview. This material is found in the following RFP attachments:

- Appendix A: Laboratory Safety Course Design Document
- Appendix B: Draft Project Approach

The applicant will be expected to do the following:
1. Develop asynchronous, web-based courses based on APHL-supplied materials. The courses should:
   a. Be built in Lectora Inspire 18 (desktop). Note: Online Lectora will not be accepted.
   b. Meet Section 508 compliance standards
   c. Include interactivities as indicated in storyboard
   d. Meet SCORM compliance

2. Develop courses that incorporate the following general layout. Note: The selected applicant will program the first two units in the Laboratory Safety course, with additional work to be determined. The Laboratory Safety units will be approximately thirty (30) minute units with no more than forty (40) slides each.
   a. Introduction
   b. Pre-test (ungraded knowledge assessment) before each unit
   c. Main content, consisting of 2-5 units with ungraded knowledge checks
   d. Post-test (graded knowledge assessment) following each unit
   e. Course Evaluation

3. All materials must be developed within an FDA-branded Lectora file template as well as a Lectora file template that incorporates APHL branding (APHL brands, colors, and logos will be provided). The course programmer will provide the Lectora file template.

APHL will provide all content for the courses and the applicant will program the online courses based on provided materials.

Project Term and Award

APHL will deliver a written notice of award to the successful applicant. The successful applicant will receive funding through a contract agreement with APHL up to a maximum amount of $25,000 for the two (2) units of the Laboratory Safety course. Programming on additional units in the Laboratory Safety course and additional courses will be available as time and budget allow. This figure includes course programming only and does not include images, graphics and animations, which should be budgeted out separately.

APHL has responsibility for validating the accuracy and completeness of the content of the final products and all materials created.

The course should be delivered to APHL by December 6, 2019, with a final invoice received by December 30, 2019.

Proposal Submission

Guidelines and Required Information

The applicant must ensure that APHL receives its letter of intent and its complete response by the due dates set out in the Anticipated RFP Schedule above. APHL’s evaluation team will not review incomplete proposals.
There is no designated response format or outline for responding to this RFP. However, regardless of the chosen format, an applicant’s proposal must be limited to 15 pages of narrative and visuals. If a proposal exceeds this 15-page limit, only the first 15 pages will be sent to the evaluation team and scoring will be based solely on the portion of the proposal submitted for review. A proposal should have a font size of 11 points or larger and page margins of at least 0.5 inches. Note: Neither the Cost Proposal described below nor anything included as an appendix will count as part of the 15-page count (material included as an appendix will only be used as reference material and will not be reviewed as part of the evaluation process).

The applicant must include the following in their response:

1. A company profile;
2. A description of two (2) past learning/development activities that best reflect the applicant’s work and relevancy to this project. Examples of course materials, including links to active courses, may be included as an appendix. Activities should be linked to prior work experience rather than part of an educational requirement for a degree/education;
3. Reference information from two (2) former or current clients. Include company name; contact person’s name; contact person’s phone number and/or email address; and description of product delivered;
4. A description of the applicant’s experience in programming web-based courses in Lectora Inspire 18 (desktop version) (examples may be included as an appendix);
6. A description of what type of team will be assigned to this project, including a description of each person’s role (resumes or CVs should be provided as an appendix); and
7. A brief description of the applicant firm’s project management and instructional development processes.

Cost Proposal

The applicant should provide a detailed cost estimate and explanation/justification of costs. The cost proposal must be no longer than three (3) pages. There is no required format and the applicant may submit the cost proposal in the format of their choice.

The cost estimate should include the number of contract hours estimated to complete an online, web-based course, as described above. The costs should be broken into 1) course programming costs, including the hours required to develop the course and the hourly rate and 2) costs for purchasing and/or developing images, graphics and animations. The cost should include interactivities as indicated in the storyboard, but at least three interactivities per unit. The applicant should provide estimates of several types of interactivities (e.g. drag & drop). The interactivities must be developed by the applicant and not subcontracted out to another entity. While APHL has allocated up to $25,000 for the course programming, additional funds are available for interactivities. Applicants should quote the development of animations on an individual basis as a supplement to the programming of the course. The cost of animation development (simple animations v. complex animations) should be submitted with the cost for proposal.

Appendix B: A Project Approach has been included to assist applicants in understanding the level of detail that APHL and partners have discussed in relation to this project. Note: Applicants are not
required to use or reference anything outlined in Appendix B unless they would like to. APHL only provides this as supporting documentation.

**Evaluation**

**Initial Review**

APHL staff members or consultants under contract with APHL will conduct an initial review of all proposals for completeness. APHL will not consider any incomplete proposals by the proposal due date specified in the Anticipated RFP Schedule section above. Incomplete proposals will not receive a formal evaluation.

**Evaluation Process**

APHL will conduct reviews via a combination of teleconference and email communications between the evaluation team described below. APHL’s Food Safety Senior Specialist will coordinate the review process and the evaluation sessions.

The reviewers may request follow-up interviews with all or some of the applicants and, following these interviews, may request supplemental information in addition to the applicant’s proposal. These interviews and any supplemental information will clarify an applicant’s capacity or experience in one or more of the evaluation criteria, or will help to explain other information contained in the applicant’s proposal.

**Evaluation Team**

APHL will assemble an evaluation team to evaluate competitive proposals and then assess their relative qualities based on the Evaluation Criteria outlined below. This evaluation team will consist of four APHL staff.

**Conflicts of Interest**

APHL will ask potential reviewers to complete and sign APHL’s *Conflict of Interest Disclosure Statement* in order to disclose any real or perceived conflict of interest prior to the start of the evaluation process and to affirm that they have no conflict of interest that would preclude an unbiased and objective review of the proposals received. APHL will not select reviewers with a perceived or potential conflict of interest. Once potential reviewers have been identified, APHL’s Director of Food Safety will have final approval over the review team’s composition.

**Evaluation Criteria**

The evaluation team will use the following criteria as a general overall framework to evaluate proposals:

- *Suitability of the Proposal* – The proposed solution meets the needs and criteria set forth in the RFP.
• **Course Programmer Expertise** – The applicant shows knowledge of the subject by recommending and communicating appropriate technical and aesthetic solutions as evidenced by the proposal and references.

• **Course Programmer Organizational Capacity** – Applicant has successfully completed similar projects and has the qualifications necessary to undertake this project. The applicant firm has appropriate staff to devote to the project within the timeframe needed.

• **Project Management** - The applicant shows experience and resources related to successful completion of a similar project.

• **Value/Pricing Structure and Price Levels** – The price is commensurate with the value offered by the applicant.

Each member of the evaluation team will evaluate proposals against the 13 questions or criteria found in Appendix D: Instructional Designer RFP Scorecard and will assign a numeric score from zero (0) (indicating a ‘poor’ response) to four (4) (indicating an ‘outstanding’ response) to reflect that reviewer’s assessment of the responsiveness of a proposal to each question or criterion. The evaluators will assign scores using the following categorizations:

- **Poor** (0 points) – The applicant’s proposed approach neither meets the baseline requirements set out in this RFP nor demonstrates more than a minimal understanding of the subject matter.
- **Fair** (1 point) – The respondent’s proposed approach does not meet the baseline requirements set out in this RFP but does demonstrate a baseline understanding of the subject matter.
- **Good** (2 points) – The respondent’s proposed approach meets the baseline requirements set out in this RFP and demonstrates the necessary understanding of the subject matter.
- **Excellent** (3 points) - The respondent’s proposed approach exceeds the baseline requirements set out in this RFP and demonstrates a deep understanding of the subject matter.
- **Outstanding** (4 points) - The respondent’s proposed approach greatly exceeds the baseline requirements set out in this RFP and demonstrates a thorough and comprehensive understanding of, or an expertise in the subject matter.

The raw scores will be weighted in such a manner so that the 52 maximum possible raw score points will be converted into a maximum possible weighted score of 100 points.

**Post Evaluation Procedures**

APHL staff will notify the selected course programmer within ten (10) business days of completion of the evaluation. Unsuccessful applicants will receive notification of these results by e-mail or by U.S. mail within 30 days of the date that the winning/successful vendor is selected. Note: Once selected, the applicant must be approved by the federal funding agency.

All applicants will be entitled to utilize APHL’s Appeals Process to formulate a protest regarding alleged irregularities or improprieties during the procurement process. Specific details of the process are listed on the procurement website.
Conditions of Award Acceptance

The eligible applicants must be able to contract directly with APHL or have an existing relationship with a third party organization that can contract directly with APHL on behalf of the applicant. Applicants must agree to comply with expectations outlined in the appendices.

General Considerations

This RFP is neither an agreement nor an offer to enter into an agreement with any respondent. Once proposal evaluation is complete, APHL may choose to enter into a definitive contract with the selected applicant or it may decline to do so.

APHL must ensure that the selected respondent is neither suspended nor debarred from receiving federal funds and that the respondent meets any other funding eligibility requirement imposed by the Cooperative Agreement. APHL’s determination of whether the respondent is eligible to receive Cooperative Agreement funding will be definitive and may not be appealed. In the event that APHL determines that the selected respondent is ineligible to receive Cooperative Agreement funding, APHL will nullify the contract or will cease negotiation of contract terms.

Each respondent will bear its own costs associated with or relating to the preparation and submission of its proposal. These costs and expenses will remain with the respondent, and APHL will not be liable for these or for any other costs or other expenses incurred by a respondent in preparation or submission of its proposal, regardless of the conduct or outcome of the response period or the selection process.
Appendix A – Laboratory Safety Course Design Document

<table>
<thead>
<tr>
<th>Title</th>
<th>Laboratory Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed ID</td>
<td>Course Code TBD</td>
</tr>
<tr>
<td>Date and Version</td>
<td>07/10/19 version 1</td>
</tr>
</tbody>
</table>

**Description**

This course addresses the critical concept of safety as it relates to laboratory operations. This course defines the practices which support a well-functioning safety plan, conveys how building design and functionality impact safety in a laboratory, and discusses how using safety equipment prevents accidents. This course will cover the similarities and differences of chemical safety and biological safety, include a discussion of personal responsibility in supporting lab safety, and touch on leadership functions which enhance the culture of safety. This course will convey how building layout, utility quality, facility and ground security, and functional storage are best configured to maximize safety. This course will define when the safety tools and protective equipment should be used to prevent injury to oneself or others. The laboratory analyst will know the importance of performing job duties in a manner that promotes a safe working environment.

**Delivery Method(s)**

Online

**Learning Objectives**

The following is a complete listing of the TLOs and ELOs, which will be broken out by module/lesson in the course design details section that follows.

<table>
<thead>
<tr>
<th>Terminal Objectives</th>
<th>Enabling Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Upon completion of the unit, participants will recognize laboratory safety practices.</td>
<td>1a: Upon completion of this unit, participants will identify general safety practices.</td>
</tr>
<tr>
<td></td>
<td>1b: Upon completion of this unit, participants will identify the general elements of an emergency evacuation plan.</td>
</tr>
<tr>
<td></td>
<td>1c: Upon completion of this unit, participants will identify the main principles of a biosafety plan.</td>
</tr>
<tr>
<td>Terminal Objectives</td>
<td>Enabling Objectives</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1d: Upon completion of this unit, participants will identify the main principles of a chemical hygiene plan.</td>
<td>1e: Upon completion of this unit, participants will identify elements of a spill response process.</td>
</tr>
<tr>
<td>2: Upon completion of the unit, participants will recognize features of building design that affect laboratory safety.</td>
<td>2a: Upon completion of this unit, participants will identify elements of a safety floor plan.  2b: Upon completion of this unit, participants will recognize consequences of utility outages.  2c: Upon completion of this unit, participants will identify laboratory storage measures  2d: Upon completion of this unit, participants will identify laboratory physical security measures.</td>
</tr>
<tr>
<td>3. Upon completion of the unit, participants will be able to identify personal protective equipment (PPE).</td>
<td>3a. Upon completion of this unit, participants will recognize the importance of PPE.  3b: Upon completion of this unit, participants will select PPE for function.</td>
</tr>
<tr>
<td>4. Upon completion of the unit, participants will recognize safety equipment.</td>
<td>4a. Upon completion of this unit, participants will recognize the importance of safety equipment.  4b: Upon completion of this unit, participants will match safety equipment to function.  4c: Upon completion of this unit, participants will identify uses of safety equipment.</td>
</tr>
</tbody>
</table>
## Course Design Details

### Unit Number and Title: Unit 1: Laboratory Safety

**Description:** This course addresses foundational knowledge related to laboratory safety. This unit will discuss the similarities and differences of chemical safety and biological safety, include an overview of personal responsibility in supporting lab safety, and touch on leadership functions which enhance the culture of safety.

**TLOs:**

TLO 1: Upon completion of the unit, participants will identify laboratory safety practices.

**ELOs:**

ELO 1a: Upon completion of this unit, participants will identify general safety practices.

ELO 1b: Upon completion of this unit, participants will identify the general elements of an emergency evacuation plan.

ELO 1c: Upon completion of this unit, participants will identify the main principles of a biosafety plan.

ELO 1d: Upon completion of this unit, participants will identify the main principles of a chemical hygiene plan.

ELO 1e: Upon completion of this unit, participants will identify elements of a spill response process.

**Estimated Time:** 0.75 hrs

### Unit Number and Title: Unit 2: Facility

**Description:** This unit will cover the impact of building design on laboratory safety. The unit will identify the elements of a safety floor plan and its purpose. It will list how a facility may be impacted by power outages, including employee responsibilities during a power outage. The unit will identify considerations for designated safety storage, including chemical and biological storage, laboratory samples, and laboratory waste. The unit will also review components of laboratory physical security measures.

**TLOs:**

TLO 2: Upon completion of the unit, participants will recognize features of building design that affect laboratory safety.

**ELOs:**


### ELO 2a
Upon completion of this unit, participants will identify elements of a safety floor plan.

### ELO 2b
Upon completion of this unit, participants will recognize consequences of utility outages.

### ELO 2c
Upon completion of this unit, participants will identify laboratory storage measures.

### ELO 2d
Upon completion of this unit, participants will identify laboratory physical security measures.

**Estimated Time:** 0.75 hours

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### Unit Number and Title: Unit 3: Personal Protective Equipment (PPE)

**Description:** This unit will introduce PPE, articles worn to protect laboratory personnel. The unit will review the importance of wearing PPE correctly and will challenge learners to select the correct PPE in a given laboratory scenario.

**TLOs:**

TLO 3: Upon completion of the unit, participants will be able to identify personal protective equipment (PPE).

**ELOs:**

ELO 3a: Upon completion of this unit, participants will recognize the importance of PPE.

ELO 3b: Upon completion of this unit, participants will select PPE for function.

**Estimated Time:** 0.5 hours

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### Unit Number and Title: Unit 4: Safety Equipment

**Description:** This unit will review tools designed to mitigate the effects of laboratory hazards. The unit will recognize the importance of using safety equipment correctly and will challenge learners to select the correct safety equipment in a given laboratory scenario.

**TLOs:**

TLO 4: Upon completion of the unit, participants will recognize safety tools/equipment.

**ELOs:**

ELO 4a: Upon completion of this unit, participants will recognize the importance of safety equipment.
ELO 4b: Upon completion of this unit, participants will match safety equipment to function.

ELO 4c: Upon completion of this unit, participants will identify uses of safety equipment.

**Estimated Time:** 0.5 hours
Lesson/Module Number and Title: Unit 1: Laboratory Safety

Description: This course will cover basic concepts in laboratory safety. Participants will be able to identify and list safe laboratory practices, as well as recognize the importance of safe laboratory practices.

Lesson/Module TLO 1: Upon completion of the course, participants will list safe laboratory practices.

Pre-Post Module Lesson Work: N/A

Learning Environment: web based

Need, Content, Description or Purpose – N/A (No Training Needs Assessment Performed)

<table>
<thead>
<tr>
<th>Lesson/Module ELOs</th>
<th>Time Estimate</th>
<th>Instructional Methodology - Level of Participant Interactivity/Engagement</th>
<th>Instructional Materials</th>
<th>Assessment Method and Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of the course, participants will: ELO 1a: identify general safety practices. ELO 1b: identify the general elements of an emergency evacuation plan. ELO 1c: identify the main principles of a biosafety plan. ELO 1d: identify the main principles of a chemical hygiene plan. ELO 1e: participants will identify elements of a</td>
<td>.75 hr</td>
<td>Asynchronous, online with knowledge checks</td>
<td>Computer with web browser, internet connection and a learning management system account</td>
<td>Multiple choice/check all that apply knowledge check quiz ELO 1a: Laboratory safety is important because: a) The laboratory analyst is protected from personal injury or illness*** b) Property is protected from damage*** c) It leads to cross contamination d) It ensures accurate record keeping e) It is organizational policy*** To whom do laboratory safety practices apply? a) Laboratory manager</td>
</tr>
</tbody>
</table>
spill response process.

b) Supervisors  
c) Laboratory personnel  
d) Visitors  
e) All of the above***

It is important for general laboratory safety to know the location of the following:

a) Safety showers ***  
b) Eyewash stations***  
c) Solvents  
d) Fire extinguishers* **  
e) Emergency exits***  
f) Method SOPs  
g) Emergency contact numbers***

Which of the following are general laboratory safety practices?

a) Avoiding skin contact with all chemicals***  
b) Pipetting by mouth  
c) Working in properly ventilated areas***  
d) Using labware for personal use  
e) Washing hands before
leaving the workstation***

A laboratory analyst should report any accident, breakage or incident that may result in exposure to infectious agents or toxic chemicals

a) immediately.**
   *
b) at the end of each day.
c) at the end of each week.
d) before safety inspections.

Which of the following is a safe laboratory practice?

a) Using a chair to block access to a bench when a dangerous reaction is being carried out
b) Cleaning up spills at the end of each day
c) Dressing for the lab by wearing protective clothing and footwear***
d) Leaving broken glass by the sink for the janitors to dispose
e) Dumping chemical
<table>
<thead>
<tr>
<th>Waste down the sink</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELO1b</td>
</tr>
<tr>
<td>What is an emergency evacuation plan?</td>
</tr>
<tr>
<td>a) A plan for building safety features</td>
</tr>
<tr>
<td>b) A plan for safe and orderly exit by building occupants***</td>
</tr>
<tr>
<td>c) A plan for safety training</td>
</tr>
<tr>
<td>d) A plan for dealing with laboratory accidents</td>
</tr>
<tr>
<td>Why is an emergency evacuation plan important?</td>
</tr>
<tr>
<td>a) It is required by the Food Safety Modernization Act (FSMA).</td>
</tr>
<tr>
<td>b) It facilitates rational decision-making during a crisis.***</td>
</tr>
<tr>
<td>c) It eliminates the need to practice evacuation.</td>
</tr>
<tr>
<td>d) It eliminates the need for an emergency action plan.</td>
</tr>
</tbody>
</table>
Who must comply when a building alarm sounds?

- a) Everyone working at the laboratory bench.
- b) Everyone except supervisors and section heads.
- c) Everyone except office staff.
- d) Everyone in the building.

Which of the following are elements of an evacuation plan?

- a) Primary evacuation routes to the outside of the building.
- b) Instructions for use of the emergency shower.
- c) Secondary evacuation routes to the outside of the building.
- d) Instructions for use of the fire extinguishers.
- e) An area outside of the building to meet and account for all laboratory personnel.
ELO 1c: What is a biosafety plan?

a) A plan for safe, orderly and prompt evacuation of building occupants.
b) A plan for risk assessment and containment of biohazards in the workplace.
c) A plan to prevent exposure to chemical, health, or physical hazards in the workplace.
d) A plan for the safe storage of chemical reagents.

A biosafety plan protects:

a) laboratory workers
b) equipment warranties
c) people outside the laboratory

d) sample storage
Which of these elements maybe addressed in a biosafety plan?

- a) Risk assessment***
- b) Laboratory biosafety practices***
- c) Flexible working hours
- d) Containment practices and equipment***
- e) Leave policy
- f) Noise hazards
- g) Personal protective equipment (PPE) ***
- h) Training***

Which of the following are potential biohazards?

- a) Bacteria***
- b) Pesticides
- c) Viruses***
- d) Cyanide
- e) Arsenic
- f) Parasites***
- g) Fungi***

Which method of decontamination most effectively destroys biological agents?

- a) Antiseptics
- b) Sanitizers
- c) Disinfectants
- d) Sterilization***
### ELO1d:

**What is a Chemical Hygiene Plan?**

- **a)** A plan for safe, orderly and prompt evacuation of building occupants.
- **b)** A plan for risk assessment related to and containment of biohazards in the workplace.
- **c)** A plan to prevent exposure to chemical hazards in the workplace. ***
- **d)** A plan for preventing biological exposure.

**Why does a laboratory need a Chemical Hygiene Plan?**

- **a)** It is required by the Occupational Safety and Health Administration (OSHA). ***
- **b)** It is required by an accrediting body.
- **c)** To reduce exposure to carcinogens***
d) To reduce risk of injury from a chemical reaction***

e) To reduce risk of slips and falls

Which of the following are chemical health hazards?

a) Carcinogens** *

b) Spices

c) Reproductive toxins***

d) Corrosives ***

e) Neurotoxins** *

f) Dilute acetic acid

Which of the following are physical hazards?

a) Combustible liquids***

b) Composts

c) Oxidizers***

d) Flammable compounds***

e) Water reactive compounds***

f) Explosives***

g) Lipids

h) Compressed gases***

i) Carbohydrates

j) Organic peroxides***

k) Viruses
A laboratory analyst should know:

a) SOPs for every method performed in the laboratory
b) The location of personal information
c) Location and availability of Safety Data Sheets (SDSs) ***
d) Contamination procedures

A Chemical Hygiene Plan includes:

a) Standard operating procedures involving the use of hazardous chemicals***
b) Requirements that balances are calibrated
c) Designation of chemical hygiene officer***
d) Designation of the quality assurance officer

e) Procedures for safe removal of contaminated waste***
f) Procedures for ordering
routinely used chemicals

ELO1e:

When should spill response planning occur?

a) As soon as a spill happens
b) At the beginning of each fiscal year
c) In advance of a spill***
d) With each change in supervisors

Why is a spill response plan important?

a) To predict where spills will occur
b) To be prepared when a spill occurs***
c) To prevent any spills from occurring
d) To maintain accreditation

Completion of the course and assessment items.
**Description:** This unit will cover the impact of building design on laboratory safety. The unit will identify the elements of a safety floor plan and its purpose. It will describe how a facility may be impacted by power outages, including employee responsibilities during a power outage. The unit will identify considerations for designated safety storage, including chemical and biological storage, laboratory samples, and laboratory waste. The unit will also review components of laboratory physical security measures.

**Lesson/Module TLO2:** Upon completion of the unit, participants will recognize features of building design that affect laboratory safety.

**Pre-Post Module Lesson Work:** N/A

**Learning Environment:** web based

**Need, Content, Description or Purpose – N/A (No Training Needs Assessment Performed)**

<table>
<thead>
<tr>
<th>Lesson/Module ELOs</th>
<th>Time Estimate</th>
<th>Instructional Methodology - Level of Participant Interactivity/Engagement</th>
<th>Instructional Materials</th>
<th>Assessment Method and Performance Criteria</th>
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</thead>
<tbody>
<tr>
<td>Upon completion of this unit, participants will be: 2a: identify elements of a safety floor plan. 2b: recognize consequences of utility outages. 2c: Upon completion of this unit, participants will identify laboratory storage measures 2d: Upon completion of this unit, participants will identify laboratory physical security measures.</td>
<td>.75 hr</td>
<td>Asynchronous, online with knowledge checks</td>
<td>Computer with web browser, internet connection and a learning management system account</td>
<td>Multiple choice/check all that apply knowledge check quiz ELO2a: What elements are found on a facility’s safety floor plan? a) Desks b) Exits*** c) Hazardous chemical storage*** d) Evacuation routes*** e) Copiers and printers f) Fire alarms*** g) Phones h) Spill kits*** i) Fire extinguishers** * j) Chemical fume hoods*** k) Biosafety cabinet***</td>
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</table>
Why should a facility have a safety floor plan?

a) Employees use the map to locate colleagues.

b) Maintenance personnel use the map to locate rooms needing work.

c) Visitors use the map to find a specific office.

d) Employees can rapidly locate important safety equipment.***

Why would the fire department need a copy of the laboratory’s safety floor plan?

a) Locate the laboratory sections when conducting a safety inspection.

b) Use as a guide to identify facility safety features during inspections.

c) Locate hazardous chemicals when responding to
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<tr>
<td><strong>an emergency</strong>*</td>
<td><strong>d) Identify location of fire extinguishers.</strong></td>
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Why is it important for a laboratory to have a safety floor plan?

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<tr>
<td>a) To prevent accidents</td>
<td>b) To provide building security</td>
<td>c) To identify laboratory safety features***</td>
<td>d) To locate safety procedures</td>
<td>e) To assist with laboratory tours</td>
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Where should the laboratory’s safety floor plan be posted?

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<tr>
<td>a) In the laboratory manager’s office</td>
<td>b) On the laboratory internet share drive</td>
<td>c) In plain view near all exits***</td>
<td>d) On the building exterior</td>
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ELO 2b:
What safety impact can occur from a power outage?

a) Building’s air quality can be compromised.*
   **

b) Chemical fume hoods become inoperable***

c) Heating and air conditioning are not functioning

d) Loss of laboratory information management system (LIMS) function

e) Loss of power to freezers and refrigerators

What is the most important emergency power system for safety?

a) Power to assure freezers and refrigerators function.

b) Power to keep the keep door security systems operational.

c) Power to keep the fire alarm functioning***

d) Battery power to keep clocks functioning.

What safety impact can occur from loss of water to the facility?

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<tbody>
<tr>
<td>a)</td>
<td>Loss of deionized water.</td>
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<tr>
<td>b)</td>
<td>Inability to use eye wash station***</td>
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<tr>
<td>c)</td>
<td>Loss of hot water.</td>
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<td>d)</td>
<td>Inability to run dishwasher</td>
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ELO 2c:

What is the most important feature of chemical storage?

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<tbody>
<tr>
<td>a)</td>
<td>Easy access to chemicals</td>
<td></td>
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<tr>
<td>b)</td>
<td>Up-to-date chemical inventory</td>
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<td>c)</td>
<td>Chemical compatibility** *</td>
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<td>d)</td>
<td>Flame resistant</td>
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What should be considered for chemical storage?

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<tbody>
<tr>
<td>a)</td>
<td>Flammability</td>
<td></td>
<td></td>
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<tr>
<td>b)</td>
<td>Chemical compatibility</td>
<td></td>
<td></td>
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<tr>
<td>c)</td>
<td>Ventilation</td>
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<tr>
<td>d)</td>
<td>All of the above***</td>
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<tr>
<td>e)</td>
<td>Both a and b</td>
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<td>How should volatile chemicals be stored?</td>
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<td>a) Store in refrigerators or freezers</td>
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<td>b) Store away from incompatible chemicals.***</td>
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<td>c) Store all volatile chemicals in explosion-proof cabinets.</td>
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<tr>
<td>d) Store in the chemical fume hood.</td>
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<table>
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<tr>
<th>In which situation is flammable storage necessary?</th>
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<tbody>
<tr>
<td>a) Limited quantities of flammable materials can be placed in routine storage.</td>
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<td>b) Flammable storage is not necessary if chemicals are compatible.</td>
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<tr>
<td>c) Flammable storage equipment is not necessary in microbiology laboratories.</td>
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<tr>
<td>d) Flammable storage is necessary wherever flammable chemicals are used.***</td>
</tr>
</tbody>
</table>
What types of laboratory materials require designated safety storage?

a) Chemical waste***
b) Biological waste***
c) Acids***
d) Bases***
e) Media
f) Volatile chemicals***
g) Biologicals***
h) Standards***
i) Reagents***
j) Deionized water
k) Desiccants

How should laboratory samples be safely stored?

a) Each laboratory analyst should store their own samples in their work area where the security of their work can be controlled.
b) All laboratory samples should be stored at room temperature.
c) Laboratory samples must be stored in controlled environments that assure safe
<table>
<thead>
<tr>
<th>ELO2d:</th>
<th>What are components of a laboratory’s physical security system?</th>
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</thead>
<tbody>
<tr>
<td>a)</td>
<td>Armed guards</td>
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<tr>
<td>b)</td>
<td>Personal identification badges</td>
</tr>
<tr>
<td>c)</td>
<td>Covered parking</td>
</tr>
<tr>
<td>d)</td>
<td>Controlled entry to facility</td>
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<tr>
<td>e)</td>
<td>Video camera surveillance</td>
</tr>
<tr>
<td>f)</td>
<td>Fenced grounds</td>
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<table>
<thead>
<tr>
<th>How do you restrict visitor access to the facility?</th>
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</thead>
<tbody>
<tr>
<td>a)</td>
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<tr>
<td>b)</td>
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<tr>
<td>c)</td>
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<tr>
<td>d)</td>
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<tr>
<td>e)</td>
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<tr>
<td>f)</td>
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</table>

Why is supply inventory management an...
important safety function?
   a) To maintain enough supply
   b) To assure that supplies are not misused
   c) To detect unauthorized use of materials***
   d) To provide budgetary information

What is the most important component of a laboratory security plan?
   a) Controlled entry to facility***
   b) Chain of custody procedures
   c) Chemical hygiene plan
   d) Restricted use of social media

Completion of the course and assessment items.

**Lesson/Module Number and Title: Unit 3: Personal Protective Equipment (PPE)**

**Description:** This unit will introduce personal protective equipment (PPE), articles worn to protect laboratory personnel. The unit will review the importance of wearing PPE correctly and will challenge learners to select the correct PPE in a given laboratory scenario.

**Lesson/Module TLO3:** Upon completion of the unit, will be able to recognize personal protective equipment (PPE)

**Pre-Post Module Lesson Work:** N/A

**Learning Environment:** web based

**Need, Content, Description or Purpose – N/A** (No Training Needs Assessment Performed)
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Upon completion of this unit, participants will: ELO 3a: recognize the importance of PPE. ELO 3b: select PPE for function.</td>
<td>.5 hr</td>
<td>Asynchronous, online with knowledge checks</td>
<td>Computer with web browser, internet connection and a learning management system account</td>
<td>Multiple choice/check all that apply knowledge check quiz ELO3a: What does PPE stand for? a) Personal Protective Equipment*** b) Personal Property Equipment c) Proper Protective Elements d) Personal Protection Electives Hazards addressed by PPE are a) Biologicals*** b) Chemicals*** c) Airborne particulates*** d) Heat*** e) Sample contamination The following are types of PPE a) Gloves*** b) Hair nets c) Respirators*** d) Safety glasses*** e) Aprons*** f) Pipettes g) Balances</td>
</tr>
</tbody>
</table>
PPE is important because

a) It is a work rule in laboratories.
b) It keeps clothing from getting dirty.
c) It helps the laboratory analyst look professional.
d) It prevents a hazard from causing injury or infection.

The federal agency which governs respiratory protection in the workplace

a) US Food and Drug Administration (FDA)
b) US Department of Agriculture (USDA)
c) Occupational Safety and Hazard Administration (OSHA)
d) US Environmental Protection Agency (EPA)

According to OSHA’s respiratory protection standard, the employer

a) Must provide a respirator to an employee when necessary to protect the health of the employee
b) Is allowed to do a cost-benefit
analysis to determine if respirator use is too costly

- Must provide respirators that are appropriate and suitable for use***
- Must allow employees to decline to participate in a written respiratory program

The laboratory analyst notices that the supply of disposable gloves is running low. They should:

- Notify the supervisor or safety officer so that an order can be placed.***
- Take extras in case the laboratory runs out.
- Re-use dirty gloves to save new gloves for others.
- Continue working, assuming gloves will be ordered.

The laboratory analyst notices a co-worker is not wearing safety glasses in the laboratory. They should:

- Remind the co-worker to wear the proper PPE
when working in the laboratory. ***

b) Ignore the oversight since the co-worker has never had an accident before.

c) Alert the supervisor and or safety officer of the oversight. ***

d) Give the co-worker your safety glasses and continue working without them.

The laboratory analyst discovers that the face shield they are required to wear while performing a dangerous task is damaged. There is no replacement. The laboratory analyst should:
  a) Continue with the task anyway since it must be completed.
  b) Stop the task and contact the supervisor immediately. ***
  c) Stop the task and leave the area, let someone else handle it.
  d) Use goggles and a respirator in place of the face shield.
To prevent exposure to the skin, PPE includes

- a) Long pants***
- b) Laboratory coats***
- c) Closed toed shoes***
- d) Respirators
- e) Gloves***
- f) Goggles

To prevent hazardous exposure to the eyes, PPE includes

- a) Safety glasses***
- b) Face shield***
- c) Goggles***
- d) Contact lenses

The purpose of the respirator is to

- a) To prevent skin exposure to a hazard
- b) To prevent sick people from contaminating co-workers
- c) Reduce breathing contaminated air***
- d) To prevent injury from flying objects

Why is it important to wear closed toed shoes?

- a) Prevents exposure to unsightly feet
- b) Prevents exposure to chemicals and
Gloves should be selected for use that are
                      a) Designed for the
                      specific hazard***
                      b) Designed to last
                       the longest

When selecting a glove for chemical resistance
one must consider
                      a) The proper size of
                      the glove***
                      b) The proper color
                      of the glove
                      c) The protective
                      rating of the glove
                      against the
                      chemical being
                      used***
                      d) The manufacturer's
                      recommendation

The limitations of PPE
include
                      a) Exposure to a
                      hazard if the PPE
                      fails***
                      b) Expense of
                      purchasing PPE
                      c) Inconvenience of
                      using PPE
                      d) Specific uses are
                      not protective of
                      all hazards***

When selecting a glove
for chemical resistance
one must consider
                      a) The proper size of
                      the glove***
                      b) The proper color
                      of the glove
                      c) The protective
                      rating of the glove
                      against the
                      chemical being
                      used***
                      d) The manufacturer's
                      recommendation

Gloves should be
selected for use that are
                      a) Designed for the
                      specific hazard***
                      b) Designed to last
                       the longest
before needing replacement  
c) Designed for the duration of contact with the hazard***  
d) Designed to provide economical performance

Completion of the course and assessment items.

Lesson/Module Number and Title: Unit 4: Safety Equipment

**Description:** This unit will review tools designed to mitigate the effects of laboratory hazards. The unit will describe the importance of using safety equipment correctly and will challenge learners to select the correct safety equipment in a given laboratory scenario.

**Lesson/Module TLO 4:** Upon completion of the unit, will be able to recognize safety tools/equipment.

**Pre-Post Module Lesson Work:** N/A

**Learning Environment:** web based

**Need, Content, Description or Purpose – N/A** (No Training Needs Assessment Performed)

<table>
<thead>
<tr>
<th>Lesson/Module ELOs</th>
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</table>
| Upon completion of this unit, participants will:  

ELO4a: recognize the importance of safety equipment.  
4b: match safety equipment to function.  
4c: will identify uses of safety | .5 hr | Asynchronous, online with knowledge checks | Computer with web browser, internet connection and a learning management system account | Multiple choice/check all that apply knowledge check quiz  

ELO4a: Safety equipment should be:  

a) Easily accessible, highly visible and well-marked.***  

b) Stored under the biological safety cabinets to |
equipment.

c) Located in the front office so access can be controlled.
d) Used outside intended use if needed equipment is unavailable.

Safety equipment are provided in the laboratory to:

a) Meet accreditation requirements.
b) Provide a safe work environment.***
c) Maintain analyte integrity.
d) Meet the code of conduct requirements.

What of the following lists represents safety equipment?

a) Safety glasses, ear muffs, gloves, lab coats, dust masks
b) Fire extinguishers, safety showers, eye wash fountains, first aid kits, fire blankets, chemical fume hoods***
c) Chemical Hygiene Plans,
<table>
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<th>biosafety plans, spill response plans</th>
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<td>d) Evacuation floor plans, fire alarm systems, personal identification badges</td>
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**Who should be aware of laboratory safety equipment location and purpose?**

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<th>a) Laboratory manager</th>
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<td>b) All supervisors</td>
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<td>c) Visitors</td>
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<td>d) All laboratory personnel***</td>
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**ELO4b: What steps should be taken to assure safety equipment is in working order?**

<table>
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<tr>
<th>a) Conduct periodic checks on safety showers, fire extinguishers and eye washes.***</th>
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<tr>
<td>b) Alert the supervisor or laboratory maintenance if a chemical fume hood is not functioning.***</td>
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<td>c) Conduct periodic evacuation and fire drills.</td>
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</table>
d) Rely on the safety officer to assure all safety equipment works.

What equipment assists with safe transportation of acids, bases and solvents?

- a) bottle carrier***
- b) gas cylinder cart
- c) wheelbarrow
- d) plastic storage bin

Match to the correct response (answers can be used more than once).

Match the safety equipment with the purpose:

- Fire extinguisher:  
  - d.
- First aid kit:  
  - a.
- Chemical fume hood:  
  - b.
- Broken glass disposal:  
  - g.
- Safety shower:  
  - c.
- Eye wash station:  
  - f.
- Spill control kit/center:  
  - e.
Sharps disposal  

h.

Answers:

a) Used to treat injuries  
b) Used to remove fumes and odors  
c) Used to remove chemicals from skin and clothing  
d) Used to put out small fires  
e) Used to clean up chemical spills  
f) Used to remove chemicals and objects from the eye  
g) Used to discard broken glass  
h) Used to discard sharp objects

Which of the following would be found in the laboratory’s first aid kits?

a) Bandages***  
b) The laboratory safety policy  
c) Wound dressings/gauze pads***  
d) Disposable gloves***  
e) Antiseptic wipes***  
f) External defibrillator  
g) Adhesive tape***  
h) Worker schedules
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<tr>
<td></td>
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<td>i) Thermal blanket***</td>
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<td>Fire blankets can be used for which of the following:</td>
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<tr>
<td></td>
<td>a) To soak up a spill</td>
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<td></td>
<td>b) To extinguish a fire on a person ***</td>
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<td>c) To prevent shock</td>
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<td></td>
<td>d) To comfort an injured person</td>
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<td>What is a safety shower?</td>
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<td>a) A hose connected to a water supply for cleaning spills.</td>
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<td></td>
<td>b) A unit that flushes water over the entire body.***</td>
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<td></td>
<td>c) A unit that irrigates and flushes the eyes.</td>
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<td>d) A device to remove fumes and odors.</td>
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<td>What is an eye wash?</td>
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<td></td>
<td>a) A hose connected to a water supply for cleaning spills.</td>
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<td>c) A unit that irrigates and flushes the eyes.***</td>
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A device to remove fumes and odors.

Chemical fume hoods protect the laboratory analyst from:

- a) Exposure to pathogens
- b) Exposure to spills***
- c) Exposure to harmful reagents***
- d) Exposure to oxygen
- e) Exposure to infectious microorganisms
- f) Exposure to nitrogen
- g) Exposure to broken glassware***

Biosafety cabinets protect the laboratory analyst from:

- a) Exposure to pathogens***
- b) Exposure to harmful reagents
- c) Exposure to oxygen
- d) Exposure to infectious microorganisms* **
- e) Exposure to nitrogen
- f) Exposure to broken glassware
When using a chemical fume hood, one must:

a) perform all laboratory activities in a hood.
b) know how to use it correctly.***
c) match the protection needed to the specific type of hood.***
d) pay attention to special signage on the face of the hood.***

Equipment to reach seldom-used glassware or equipment stored on the top shelf of the stockroom include:

a) The nearest chair
b) A ladder***
c) A step stool***
d) A desk near the shelf
e) A dolly

Equipment to assist with lifting or carting heavy objects include:

a) A dolly***
b) A step stool with wheels
c) A cart ***
d) A hand truck***
e) A chair

An employee incorrectly uses a biosafety cabinet for
working with acids. This error is due to:

a) Improper safety training during employee orientation.

b) Employee not comprehending the difference between chemical fume hoods and biosafety cabinets.***

c) Improper understanding of MSDS sheets and required handling of acids.

d) The lack of a required chemical fume hood for handling acids in the laboratory.

ELO4c:

When is the appropriate time to check a fume hood’s function?

a) The first of each month
b) Every Monday morning
c) Before beginning work in the hood***
d) When cleaning the hood
Match the equipment to its function

a) First aid kit- Used as a temporary solution for minor cuts, burns, etc.
b) Chemical fume hood- used to vent air away from the analyst.
c) Fire blanket- Used to smother small fires.
d) Lifting tools- Used to assist lifting equipment that is otherwise too heavy or awkward for lab personnel.

A small fire breaks out in a waste container. Employees didn't know where the fire extinguisher was located or how to use it. The ways to remedy this are:

a) ensure that each employee knows the location of fire extinguishers.**

b) conduct a periodic demonstration of how to work a fire extinguisher.***
c) Set up a test fire in the lab and see if anyone can
Completion of the course and assessment items.

Lesson/Module Number and Title: Knowledge Assessment

**Description:** This unit will assess the participant’s knowledge gained through the previous modules.

**Lesson/Module:** Upon completion of the unit, participants will be able to self-assess knowledge gained in the unit.

**Pre-Post Module Lesson Work:** N/A

**Learning Environment:** web based

**Need, Content, Description or Purpose – N/A** (No Training Needs Assessment Performed)

<table>
<thead>
<tr>
<th>Lesson/Module ELOs</th>
<th>Time Estimate</th>
<th>Instructional Methodology - Level of Participant Interactivity/Engagement</th>
<th>Instructional Materials</th>
<th>Assessment Method and Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of this unit, participants will: ELO1: recognize laboratory safety practices.</td>
<td>.5 hr</td>
<td>Asynchronous, online with knowledge checks</td>
<td>Computer with web browser, internet connection and a learning management</td>
<td>Multiple choice/check all that apply knowledge check quiz</td>
</tr>
<tr>
<td>ELO2: recognize features of building design that affect laboratory safety.</td>
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<tr>
<td>ELO3: describe personal protective equipment (PPE).</td>
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<tr>
<td>ELO4: recognize safety tools/equipment.</td>
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</tr>
<tr>
<td>system account</td>
<td></td>
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<tr>
<td>Completion of the course and assessment items.</td>
<td></td>
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</tbody>
</table>
Appendix B – Project Approach

To help frame the required level of detail, respondents should be thinking about this information as they provide their estimates on cost, deliverables and proper staffing. **NOTE: RESPONDENTS DO NOT HAVE TO USE OR REFERENCE THIS INFORMATION, IT IS ONLY INCLUDED AS A GUIDANCE RESOURCE.**

1. Review of course design document and supporting materials:

   As is apparent in Appendix A, APHL and partners have created a course design document that outlines the flow of the to-be-developed course. Storyboards are in development for the course, and the course programmer should be prepared to review these materials.

2. Creation of a project plan and timeline:

   With enough information generated from task #1, the course programmer should prepare a plan and timeline for the programming and delivery. Minor adjustments in the proposed costs and resources can occur at this time.

3. Program and deliver the Course:

   The course programmer will undertake development of the course with APHL provided content and input.

Appendix C – Frequently Asked Questions

<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>APHL Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDD / Storyboard</td>
<td>Will the CDD and/or Storyboard have been approved by the FDA prior to</td>
<td>The CDD has been approved by FDA. The SMEs have produced content for APHL and FDA reviewers in the past.</td>
</tr>
<tr>
<td></td>
<td>course development?  Have the SMEs produced content for APHL and FDA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reviewers in the past?</td>
<td></td>
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<tr>
<td></td>
<td>Appendix B, section 1 indicates that your team is currently developing a</td>
<td>If necessary, the storyboard will contain the desired narration scripting.</td>
</tr>
<tr>
<td></td>
<td>storyboard for this course. Will the approved storyboard contain the</td>
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<tr>
<td></td>
<td>desired narration scripting, or will the programming team be expected to</td>
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<tr>
<td></td>
<td>work with your team to develop and draft a narration script?</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Question</td>
<td>APHL Response</td>
</tr>
<tr>
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</tr>
<tr>
<td>CDD / Storyboard</td>
<td>Are the storyboards basically text in Word format or are they chunked out by slide as in PowerPoint?</td>
<td>Word format</td>
</tr>
</tbody>
</table>
| CDD / Storyboard  | It’s mentioned in Appendix B that “storyboards are in development …”                                                                                                                                                                                                                                                                   | a. What form are the storyboards in – PPT, Word or? Word | b. In addition to the content text, what will the storyboards contain?  
   i. Images, graphics with associated alternative text to use? Yes  
   ii. Narration scripts for professional narrations? Yes (if applicable)  
   iii. Descriptions of interactivities for programmer to create? Yes  
   c. If some of these are not contained w/in the storyboard, is the programmer expected to develop them? No |
<p>| CDD / Storyboard  | Do the storyboards include all of the content text, images and/or descriptions of images, and any voice over script that is in addition to the text on the slide?                                                                                                                                                                               | Yes           |
| CDD / Storyboard  | The CDD would seem to indicate a linear learning experience without branching or role-specific differentiation, is that an accurate assumption?                                                                                                                                                                                              | Yes           |
| CDD / Storyboard  | Is the team open to possibly breaking up the 1-hour learning program into 3 or 4 shorter, more digestible modules?                                                                                                                                                                                                                           | The storyboard will include a set number of units. |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>APHL Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance for 508 / Templates</td>
<td>Can describe your approach to meeting 508 compliance? For example, do you require true closed captioning or display of slide-level scripting in a viewable pane?</td>
<td>Closed captioning is required for all videos. When making any course, the developer should be following section 508 standards. For additional information, link is below. Section 508 Standards for Electronic and Information Technology: <a href="https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards/section-508-standards">https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards/section-508-standards</a></td>
</tr>
<tr>
<td>Compliance for 508 / Templates</td>
<td>Please confirm that APHL will be providing a Lectora 18 template that already meets Section 508 standards.</td>
<td>No, APHL expects that the awardee will provide a Lectora 18 template that meets Section 508 standards.</td>
</tr>
<tr>
<td>Compliance for 508 / Templates</td>
<td>Will the Lectora template need to be appropriately sized for use on tablets?</td>
<td>At this time, the answer is yes</td>
</tr>
<tr>
<td>Compliance for 508 / Templates</td>
<td>Will APHL also be providing a style guide containing appropriate branding elements which meet Section 508 standards?</td>
<td>Yes, APHL will provide this.</td>
</tr>
<tr>
<td>Course assets</td>
<td>Are there assets you would like designed and developed that learners can download during or after the course (e.g. job-aids, quick reference cards, etc)?</td>
<td>Not at this time.</td>
</tr>
</tbody>
</table>
| Course delivery           | How will the course be delivered online?                                                   | a. Windows-based desktop/laptop? Yes  
 b. Tablet – Windows or Android or iOS? Yes  
 c. Smart phone – Android or iOS? – Do you need a mobile version? No                                                                                                                                                                                                                                                                             |
<p>| Deliverables Timeline / Review | Please provide an overview of the review or approval cycle of any deliverables we provide. Can you provide typical or average deliverable review times so we may take them into consideration? | We have built a one-week review on our end for beta-testing the course. We will then send it for FDA review. If additional edits are needed past the deliverable deadline, we will allow for a No |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>APHL Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cost Extension on the contract to make those edits.</td>
</tr>
<tr>
<td>Delivery system / LMS</td>
<td>Does APHL have an intended learning management system in mind for hosting the eLearning course?</td>
<td>We plan on this course running on FDA’s LMS. We are to have the course programmed in Lectora 18 Inspire (desktop version). We want individual SCORM files. As of this date, the course would be programmed modularly, where the major components (introduction, pre course assessment, content, post course assessment, evaluation, etc.), are individual SCORM files.</td>
</tr>
<tr>
<td>Images</td>
<td>Is the programmer expected to research and find appropriate stock images? Or will APHL provide them?</td>
<td>The programmer is expected to find appropriate stock images which APHL will approve.</td>
</tr>
<tr>
<td>Interactions / Animations</td>
<td>Please clarify the difference between interactivity and animation. For example, we consider an interaction depending on a user response, whereas an animation is passively watched. Is that your definition as well?</td>
<td>Yes, that is how we are distinguishing the two terms.</td>
</tr>
<tr>
<td>Interactions / Animations</td>
<td>To help with the clarification, please share examples of interactions and animations you think are particularly effective.</td>
<td>We are interested in seeing some of your examples, as stated in the RFP.</td>
</tr>
<tr>
<td>Interactions / Animations</td>
<td>Under cost proposal, it’s stated, “The cost should include up to three interactivities.” Is this referring to the programming cost proposal?</td>
<td>Yes—the interactivities should be included in the programming cost.</td>
</tr>
<tr>
<td>Interactions / Animations</td>
<td>Can you please clarify? Are up to 3 interactivities part of the funds up to $50K, or additional?</td>
<td>There are to be up to 3 interactivities in the course as part of the cost. Animations will be charged out separately.</td>
</tr>
<tr>
<td>Interactions / Animations</td>
<td>Will the storyboard call for live-action video to be filmed and produced? If so, can you describe what kind of scenes and</td>
<td>There may be short videos, 15-30 seconds. The video would be in the course and not a link to an external site.</td>
</tr>
<tr>
<td>Category</td>
<td>Question</td>
<td>APHL Response</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Review / Quality assurance</td>
<td>Based on verbiage in the RFP, we assume that the course content will be complete – the developer would not be responsible for review/quality assurance of the content – correct?</td>
<td>The developer would not be responsible for review of the content. The developer would be responsible for ensuring that spelling and punctuation is correct in the course. E.g. If the spelling and punctuation is placed in the course in the same state as in the storyboard.</td>
</tr>
<tr>
<td>Subject matter experts (SME)</td>
<td>Will input/feedback/approval by an individual, for example the project manager, or will it be via a committee conveyed through the project manager?</td>
<td>Feedback will come from the project manager who will compile the comments/edits from the SME workgroup. Final approval will be from APHL project manager based on OTED approvals.</td>
</tr>
<tr>
<td>Translation</td>
<td>Will the course need to be translated?</td>
<td>No.</td>
</tr>
</tbody>
</table>

**Appendix D—Course Programmer RFP Scorecard**

The following table is a copy of the scorecard that will be used to evaluate RFP responses.

<table>
<thead>
<tr>
<th>Scoring:</th>
<th>Poor: 0</th>
<th>Fair: 1</th>
<th>Good: 2</th>
<th>Excellent: 3</th>
<th>Outstanding: 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Criteria</td>
<td>Score</td>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitability of the Proposal: Does the applicant's proposal demonstrate an understanding of the operational need of the project and follow proposal instructions?</td>
<td>To what degree did the proposal meet the overall objectives of the project?</td>
<td></td>
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<tr>
<td></td>
<td>Did the applicant follow instructions - i.e., stay in page count, include required information?</td>
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<tr>
<td></td>
<td>Is the information presented in a clear, logical manner and is well organized?</td>
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</tr>
<tr>
<td>Section Total</td>
<td>Course Programmer Expertise: Does the applicant’s proposal demonstrate sufficient experience in course design and development to serve as the instructional designer?</td>
<td></td>
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<tr>
<td></td>
<td>Did the applicant provide references for two former or current clients?</td>
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<tr>
<td></td>
<td>Did the applicant list and articulate two past learning and development activities they produced that best reflect their work and relevancy to this project? Are the activities articulated at a quality level that APHL seeks?</td>
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<tr>
<td></td>
<td>Did the applicant thoroughly explain and have experience in programming web-based courses?</td>
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<tr>
<td></td>
<td>Is the applicant’s existing knowledge and experience in this field, as described in the proposal, relevant to the project? (provided company profile, length of time in business and experience designing and developing competency-based training)</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section Total</th>
<th>Course Programmer Organizational Capacity: Does the applicant have the appropriate staff to develop the product in the time frame needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does the applicant have organizational capacity to produce the web-based courses?</td>
</tr>
<tr>
<td></td>
<td>Did the applicant outline an appropriate team to work on this project?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section Total</th>
<th>Project Management: Does the applicant have experience in project management?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does the applicant demonstrate project management experience relevant to completion of international program of this magnitude?</td>
</tr>
<tr>
<td></td>
<td>Does the applicant have instructional development processes in place to achieve program goals according to a set schedule?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section Total</th>
<th>Value/Pricing Structure and Price Levels: Is the price commensurate with the value offered by the applicant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did the applicant hold some level of reasonable accuracy for time and cost based on the provided course design document and course layout?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Score</th>
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</table>