

## Design Guidelines

Per section 2.1 **Project Design Requirements**, the CyberCRED utilizes best practices in adult learning theory and instructional design and offers engaging, original, innovative, and scalable eLearning solutions.

Specific design and development guidelines are as follows:

### **1. Instructional Design**

The CyberCRED integrates within CYBER-Champ's strategic learning framework, and:

- Contains levels of progression with applicable and appropriate training at each level (i.e., beginner, intermediate, advanced).
- Adheres to a sound development model such as ADDIE.
- Utilizes Bloom's Taxonomy to define learning objectives.
- Per the objectives defined, reflects the best general representation of a subject based on the audience.
- Offers asynchronous and self-paced learning modules.
- Does not exceed ten minutes per learning module.
- Incorporates CyManII tools, concepts, and methods where appropriate.

### **2. Style**

- The CyberCRED adheres to CyManII's Style Guide to ensure brand consistency.
- A thorough editing process validates the CyberCRED for clarity, consistency, and readability.

### **3. Resources and Subject Matter Experts (SMEs)**

- The project team provides subject matter experts (SMEs) with proven relevant education and experience in cyber security. SMEs must meet CyManII approval.
- The CyberCRED reflects thorough research with applicable, dependable, and trustworthy sources including interviews and collaboration with SMEs.
- SMEs review all developed CyberCRED content to ensure technical accuracy and relevance for the audience.
- All CyberCRED content is subject to CyManII approval.

### **4. Interactivity**

The CyberCRED incorporates a rich variety of multimedia to reinforce and enhance the learner experience. Examples of which may include, but are not limited to:

- Illustrations, photos, videos, animations, simulations, and interactive media.
- Interactive exercises and activities, which may include, but is not limited to, game-like interactions, hot spots, drag and drops, pop-ups, sliders, dials, sequencing, triggers, check boxes, and markers.
- Glossaries of key terms.

## 5. Assessment Functionality

Per the objectives defined, the CyberCRED contains both formative and summative reinforcement throughout to ensure retention of key information.

- The CyberCRED includes a pre-test and post-test.
- The CyberCRED features assessment tracking and reporting functionality via xAPI (*see technical requirements*).

## 6. Accessibility and Usability

- The CyberCRED is ADA compliant.
- The CyberCRED contains professionally recorded audio to correspond with applicable training initiatives.
- The CyberCRED is navigable, intuitive, and user-friendly.

## 7. Piloting

The CyberCRED incorporates a strategy for beta testing with an external sample group of users who can verify validity and efficacy of the learning solution.

## 8. Dynamic Capability

As part of continuous improvement and to allow for sustainability in a constantly evolving technology, every component of the CyberCRED, including text, multimedia, and assessments are dynamic, editable, and scalable.

## 9. Technical Requirements

The CyberCRED conforms to specified technical standards per section **2.1.1 Functional Requirements:**

- Allows for learner tracking, measurement, and transferability via xAPI.
- The chosen content management system (CMS) is compatible with Open edX LMS.
- Applicable browsers support all content.
- Project team provides CyManII with all original project files as created in the CMS.