

### Domain 2: Accessibility and

<u>Course</u> > <u>Universal Design</u>

#### > <u>Domain 2 Review</u> > Domain 2 Review

# Domain 2 Review

Use this sheet to review the high level concepts prior to taking the graded practice exam at the end of this course.

Before you begin, please note:

- The CPACC practice exam consists of 100 questions. It will include 40 questions from Domain 2.
- The test is 2 hours (without accommodation) so allot yourself up to 48 minutes for this portion of the exam.
- The exam is broken into blocks of ten items, so Domain 2 will be delivered in four blocks.
- Not all topics in this course will be on the exam, and there will be topics on the exam that are not covered in this course.

### ▼ A. Accessibility and Universal Design

The goal of universal design is to create products, services, and built environments that meet the needs of everyone who uses them.

#### Accommodations

Adjustments provided for a person with a disability, giving them equal access to education or employment through the ability to perform the same tasks to the same extent as people without disabilities.

# **Education accommodations**

Any supports and services that help a student access the curriculum and demonstrate their learning.

# Workplace accommodations

Accommodations that allows someone with a disability to apply for and perform a job, or enjoy equal access to its benefits.

## Undue burden

Significant difficulty or expense for the organization being asked to provide an accommodation.

# Fundamental alteration

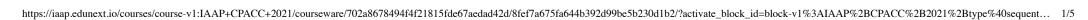
A modification so significant that it alters the essential nature of the goods, services, facilities, privileges, advantages, or accommodations offered.

## 7 Principles of Universal Design

- 1. Equitable use
- 2. Flexibility in use
- 3. Simple and intuitive use
- 4. Perceptible information
- 5. Tolerance for error
- 6. Low Physical Effort
- 7. Size and Approach for Use

### 8 Goals of Universal Design

1. Body fit



- 2. Comfort
- 3. Awareness
- 4. Understanding
- 5. Wellness
- 6. Social integration
- 7. Personalization
- 8. Cultural appropriateness

# ▼ B: Benefits of Accessibility

## Benefits for People with Disabilities and their Families

- People are not isolated or hidden from society, including being confined to institutions
- Increased opportunities for employment leads to greater family income and wealth potential
- · Access to child care, early education, and school education creates more opportunity and helps break the cycle of poverty
- Inclusion allows people with disabilities to participate in and be valued as full citizens

### Benefits to Society

- · Increased independence strengthens society
- · Society benefits economically
- Accessibility helps society prepare for future technologies

#### **Business Benefits**

- Drives innovation
- Increases marketshare
- Enhances brand
- · Increases market reach
- Minimizes legal risk
- · Provides financial gains and cost savings
- Increases the talent pool
- · Increases productivity from supporting and retaining older employees and their experience

### ▼ C: Web Accessibility

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. People must be able to perceive, understand, navigate, interact with and contribute to the Web.

The Web Content Accessibility Guidelines provide an internationally accepted set of technical standards that explain how to make web content more accessible.

The most current version is WCAG 2.1.

WCAG is made up of principles, guidelines, success criteria, and techniques.

### Structure of the WCAG

- 4 Principles: Perceivable, Operable, Understandable, and Robust (POUR)
- 13 Guidelines: Provide the framework and overall objectives
- 78 Success Criteria: Testable standards



- Techniques: Informative, and not required to achieve conformance
- 3 Levels: A, AA, and AAA

#### Perceivable

- Provide text alternatives for any non-text content
- Provide captions and other alternatives for multimedia
- Create content that can be presented in different ways, including by assistive technologies, without losing meaning
- Make it easier for users to see and hear content

#### Operable

- Make all functionality available from a keyboard
- Provide users enough time to read and use content
- Do not design content in a way that is known to cause seizures or physical reactions
- Help users navigate and find content
- Make it easier to use inputs other than a keyboard

#### Understandable

- Make text content readable and understandable
- Make content appear and operate in predictable ways
- Help users avoid and correct mistakes

#### Robust

Maximize compatibility with current and future user tools

# ▼ D: Universal Design for Learning (UDL)

Universal Design for Learning is a framework of principles and guidelines for minimizing barriers and maximizing learning for all students.

Provide multiple means of engagement

Uses the brain's caring and prioritizing network.

Answers the learner's question, "WHY should I learn this?"

Stimulate interest to create motivation for learning by getting learners challenged, excited, or interested

- Recruiting interest: Give learners choices, make learning relevant, and minimize threats and distractions
- Sustaining effort and persistence: Develop activities that will help learners tackle challenges with focus and determination
- Self-regulation: Help learners harness the power of emotions and motivation

Provide multiple means of representation

Uses the brain's recognition network.

Answers the learner's question, "WHAT am I learning?"

Help every learner perceive and make sense of the information being taught.

- Perception: Present information in ways that doesn't depend on a single sense like sight, hearing, movement, or touch
- Provide learners with different ways to express what they know
- Language and symbols: Communicate through languages that create a shared understanding
- Comprehension: Help learners develop their information processing skills to transform information into useable knowledge



Multiple means of action and expression

Uses the brain's skills and strategies network.

Answers the learner's question, "HOW can I learn this and show that I understand?"

Help learners navigate the learning environment and express what they know.

- Physical action: Vary the methods for navigating and responding, and support the use of accessible materials and tools
- Expression and communication: Support different ways for learners to express what they know
- Executive function: Help learners develop deliberate strategies for learning

### ▼ E: Usability and User Experience

### **Definitions**

#### Accessibility

The means by which people with disabilities can perceive, understand, navigate, and interact with products, services, and environments.

#### Usability

Usability focuses on ease of use: A person should be able to easily access a product, service, or environment), use it, and complete their desired task. A highly usable product reduces cognitive load so the user can achieve their goals quickly, with minimum fuss or frustration and without error. A highly usable product is also accessible.

User Experience (UX)

Includes usability, but is comprehensive of the person's end-to-end experience with the product, including the emotional dimension: the desire, joy, meaning, reflection, value or frustration that a user experiences.

UX addresses every point of interaction a person has with a product, service, or environment, including:

- · Becoming aware of it
- · Acquiring or accessing it
- Using it for the first time
- · Using it subsequent times
- One's feelings about it

### Core components of UX

- Usability: A person should be able to access a product (or service or environment), use it easily, and complete their desired task
- **Usefulness**: A product should include enough information in an easily digestible format so that users can make informed decisions
- Desirability: A product that provides a truly successful user experience elicits positive feelings toward it
- **Accessibility**: A product should meet recognized standards in order to help ensure that people with disabilities can perceive, understand, navigate, and interact with it
- Credibility: The trust (levels of quality, security and privacy) that a product engenders in people play an important role in user experience

Differences Between Accessibility and Usability

- Accessibility specifically covers the needs of disabled users, and is a discipline within usability
- Accessibility relies on technical standards, while usability does not

Keys to Integrating Accessibility into Usability

- Incorporate real people in design
- Ensure all stakeholders on a project understand the needs of people with disabilities
- Involve users with disabilities early and throughout the design process



· Include users with disabilities in evaluating accessibility

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