# **Design Guidelines for Universal Accessibility**

## **Universal Design Principles:**

- **Solution** Equitable use: the design is useful and marketable to any group of users.
- Flexibility in use: the design accommodates a wide range of individual preferences and abilities.
- Simple and intuitive use: use of design is easy to understand.
- Perceptible information: the design communicates necessary information effectively to the user.
- ❖ Tolerance for error: the design minimizes hazards and adverse consequences of accidental or unintentional actions.
- ❖ Low physical effort: the design can be used effectively and comfortably.
- Size and space for approach and use: appropriate size and space is provided for approach and use.

### **Guidelines**

- 1. Keep page layout simple and consistent
  - Keep background simple. Make sure there is enough contrast between background and/or the text and imagery. Mostly discerning reds from greens, but discerning blues and browns.
- 2. Use standard HTML
  - Different authoring applications can apply HTML tags differently.
  - To avoid this, paste plain text into the background text editor and then format using the Text Editor. An alternative is to paste HTML code into Text Editor when it is code view, you can access the code view by clicking the <> symbol in the second row of buttons in the Text Editor.
- 3. Design Large Buttons
  - Small buttons, image maps, and image marking links can be difficult targets with student s with mobility impairments
  - Large buttons and link images make it easier for everyone to navigate links.
- 4. Include a note About Accessibility
  - Include a web access symbol or statement on the entry page of your Blackboard course, on any tool page in the header section, or on any of the content pages. Be sure to say that you will be happy to receive suggestions on how to increase accessibility for our students.

- 5. Access for visual impairments
  - Many low-vision students use magnification software or CCTV to read.
  - When using the Text Editor to format content, some inline styling is unavoidable. Be sure to set font sizes and colors with low-vision students in mind.
  - Structuring the document using headings labeled H1-H6 created ordered hierarchy
    that translates into structure of document's contents using ordered, unordered, and
    definition list whenever possible also translated into a structure for blind students.
  - Any video clips need to have an accompanying transcript that includes description as well as all dialog.
- 6. Keep the Screen Uncluttered
  - Make more pages rather that long pages filled with small type and jammed with images.
- 7. Leave considerable space around all items
  - Add extra space to images by coding extra horizontal and vertical space.
- 8. Text and images
  - Avoid dark or brightly colored backgrounds.
  - Provide a text-only alternative page with description of imagery.
  - Text only descriptions can be read by screen readings software.
  - Blackboard can open a new browser window for linked descriptions.
- 9. Use ALT attributes with IMG tags
  - Use ALT tag only for informational graphics.
- 10. Include menu alternatives for image Maps
  - An image map is a picture that has "hot spots" that act like links.
  - Generally speaking image maps pose many problems for screen reader users and should be avoided.
- 11. Test Form and Databases
  - Always test forms and databases with text-based browsers.
- 12. Providing access for students with hearing barriers
  - Provide text descriptions for all sound clips.
  - Provide text descriptions for all video clips that include sound.
- 13. Access for Learning and Cognitive Impairments
  - Many people find photographs and diagrams to be extremely helpful for explaining complex ideas and information, especially if they have difficulty reading long passages of text.
  - Students who have no mobility restrictions can take advantage of lessons that have a "drop and drag" component embedded.
  - The responsibility of accessibility course content falls on instructor using technology.

#### 14. English as a second language

- Keep writing simple and direct
- Use bulleted lists to denote key terms
- Use heading to organize ideas
- Use number listed to denote sequences
- Avoid the use of slang terms
- Avoid idioms
- Avoid jargon
- Create a glossary for terms used in the course, including terms found in reading assignments, textbooks, and links
- Use pictures, icons, and diagrams
- Provide translations for instructions on test and assignments
- Provide translations for online actions if possible

#### 15. Attention Deficit Disorder

- Accommodations or design considerations for students with ADD or ADHD in online courses may include:
  - > Extend time to complete test or assignments
  - > Tutors or other organizational supports
  - > Smaller classes
  - Copies of class notes for test taking
  - Recorded lectures and text books
  - Printed course material
  - Written directions

#### 16. Emotional or Behavioral Problems

- Accommodations or design considerations for students who have mental health impairments may include:
  - Access to class notes
  - Early notification of projects, exams, and assignments to reduce stress
  - > Flexible attendance requirements
  - > An encouraging, validating course environment
  - > Alternative test arrangements
  - > Email distribution of course materials

- 17. Course design indicates a conscious effort to comply with or exceed Level 1 of Accessibility standards.
  - A text equivalent for every non-text elements is provided (e.g. Alt Texts, Transcripts, etc.)
  - Captioning options is available for audio portions of multimedia presentations.
  - Redundant text links are provided for links embedded on server-side image maps.
  - Information conveyed with color is also available without color.
  - When a Web page requires that an applet, plug-in, or other application be present on the client system to interpret page content, the page provides a link to the needed plug-in or applet.
  - When a timed response is requires, the user is alerted and given time to indicate more time is required.
  - Row and column headers are identified in data tables.
  - Safe image sizes-535X295

### **REFERENCES**

Design Guidelines for Universal Access (2005). Retrieved February 12, 2012, from <a href="http://www.coursites.com/universaldesignandaccessibilityforonlinecourses">http://www.coursites.com/universaldesignandaccessibilityforonlinecourses</a>\*

Farb, S. (2007). Universal Design and the Americans with Disabilities Act: Not All Systems Are Created Equal – How Systems design Can Expand Information Access. *ALCTS NewsletterOnline*. Retrieved February 14, 2012, from <a href="http://archive.ala.org/alcts/alcts\_news/gateway/gateway/6.html">http://archive.ala.org/alcts/alcts\_news/gateway/gateway/6.html</a>

<sup>\*</sup>Registration required for access to material