

To achieve an inclusive learning and working community, George Brown, The City College, embraces and promotes the Principles of Universal Design in its electronic information environment.

George Brown, The City College, is committed to the development, purchase, and distribution of electronic and web-based products that can be accessed **by the widest possible range of people**. George Brown, The City College, is committed to providing equal access to electronic information including but not limited to, course-related web sites, distance learning, instructional and productivity software.

Developers of all departmental and administrative materials published on George Brown web sites are to comply with Web Content Accessibility Guidelines as outlined below. These guidelines will continue to evolve as technology changes, therefore developers must continually up-date their products to comply with the changes.

### What is Accessibility?

Accessibility is defined as "**Development of information communication systems flexible enough to accommodate the needs of the broadest range of users . . .** "

-- Cynthia D. Waddell - <http://www.rit.edu/~easi/law/weblaw.htm>

### Why Accessibility?

- George Brown College wishes to communicate with the general community through the College's electronic information systems. The application of accessibility design techniques to College Web sites and information systems will allow the college **to reach the widest possible range of visitors regardless of the technology they use.**
- George Brown College serves over 800 students with an identified disability. In Ontario there are 1.5 million persons with disabilities.
- George Brown College has a large faculty and support staff who can benefit from accessible electronic information products or systems. Developing such products will reduce injury and allow staff to continue to work regardless of disability.
- George Brown College is acquiring and developing many large electronic information systems.
- Faculty are beginning to integrate learning technologies to support their work with students.
- The Charter of Rights and Freedoms and the Ontario Human Rights Code require access to educational goods and services for all students.
- The Ontario Ministry of Citizenship requires that all Colleges and Universities develop an Accessibility Plan to make their buildings, programs, and services more accessible to people with disabilities.
- Accessibility built in at the design level is often only a matter of choosing to apply known techniques. Incorporating accessibility features into the development phase of a new

electronic information product or system will be less expensive than adding the features later.

- Site development and maintenance costs are an ongoing concern for businesses. Applying accessibility design techniques reduces these costs.

*More information on “why accessibility?” can be found at:*

**Why Web Accessibility?**

<http://www.webaccessguides.org/accessguide/why.htm>

**Does it Cost More to Build an Accessible Site?**

<http://www.webaccessguides.org/accessguide/costs.htm>

**Auxiliary Benefits of Web Design**

<http://www.w3.org/WAI/bcase/benefits.html>

**Universal Design for the Web**

The concept of Universal Design means designing for the widest range of people's abilities. The guidelines below apply this concept to web page design. Following them will ensure that your Web pages are robust, standard, and accessible to the fullest possible range of users. As you build your web pages keep in mind that your audience is diverse. Not all web page visitors are using the standard graphical browsers. They may use **adaptive technologies** such as screen readers or text-based browsers, have their browser graphics turned off, or may not be able to use, or have access to a mouse or keyboard. Some users also have physical or cognitive disabilities that impact their use of a Web page. Universal Design not only ensures that your information will be accessible to people with various types of disabilities, but also to those using old, alternate, or emerging technologies.

The guidelines below will satisfy minimal accessibility standards for your Web page. We encourage you, however, to go beyond the minimum in making your Web page universally accessible. For more detailed information, consult the World Wide Web Consortium's (W3C) Web Accessibility Initiative's (WAI) [Web Content Accessibility Guidelines 1.0](#) for Page Authoring.

**Web Content Accessibility Guidelines**

The most important points to remember in making your pages accessible are:

- Follow current web standards; **HTML 4.0, Cascading Style Sheets (CSS1)**
- **Images & animations.** Provide ALT tags, describing the content of the visual elements. The more important and/or complex the image, the more descriptive your ALT tag should be.
- **Image maps.** Use client-side MAP, and provide ALT tags for links.
- **Multimedia.** Provide captioning and transcripts of audio, and descriptions of video.
- **Hypertext links.** Links should be descriptive of their destination. For example, avoid “click here.” Many screen readers allow the user to listen to the links out of context.

- **Page organization.** Use headings, lists, and consistent structure. Use **CSS** for layout and style where possible.
- Don't depend on CSS or other visual elements to convey meaning. For example, if you color code certain words with CSS, the colors will be lost in text-only browsers or screen readers.
- **Graphs & charts.** Summarize or use the **longdesc** attribute.
- **Scripts, applets, & plug-ins.** Provide alternative content in case active features are inaccessible or unsupported
- **Frames.** Use frames cautiously, always providing NOFRAMES content and giving titles to each frame. (Remember to keep your NOFRAMES content up-to-date.)
- **Tables.** Tables with tabular data should be well-organized and summarized for clarity. Where possible, use CSS instead of tables for formatting purposes – just be sure that your formatting “decays gracefully” in non-CSS browsers, such as Netscape 3.0.
- **Preview in various browsers** such as Netscape and Internet Explorer including old versions and a text only browser, such as Lynx to ensure that your pages are still intelligible.
- **Check your work.** A variety of resources are available to test and validate your Web pages. For example use the W3C's HTML Validation Service and the Bobby Accessibility Checker. Test on a variety of platforms (UNIX, Windows, MAC) and browsers (Netscape 3 & 4, IE 5, Lynx). Use tools, checklist, and guidelines at <http://www.w3.org/WAI/Resources>.

More information on Web Accessibility can be found at <http://www.w3.org/WAI>

## Reference

### Web Accessibility On-Line Slide Presentation

<http://www.w3.org/Talks/WAI-Intro/slide1-0.html>

### World Wide Web Consortium Web Accessibility Initiative (WAI)

<http://www.w3.org/WAI/>

### National Center for Accessible Media

<http://www.wgbh.org/ncam>

### Designing More Usable Websites (TRACE)

<http://trace.wisc.edu/world/web/index.html>

### Tools for Universal Design of Instruction

[http://www.facultyware.uconn.edu/udi\\_information.htm](http://www.facultyware.uconn.edu/udi_information.htm)

## Resources

### **Simplified Web Accessibility Guide**

<http://www.webaccessguides.org>

### **Accessible Web Design**

<http://www.starlingweb.com/webac.htm>

### **Web Accessibility Quick Start Slides**

<http://www.w3.org/WAI/wcag-curric/int1-0.htm>

### **Universal Design of Instruction**

<http://www.washington.edu/doit/Brochures/Academics/instruction.html>

### **How to Create Accessible Web Pages**

<http://webaim.org/howto>

### **How to Create an Accessible Power Point Presentation**

<http://www.cmac.state.ct.us/access/tutorials/powerpoint.htm>

### **HTML Writers Guild AWARE Center**

<http://aware.hwg.org>

### **How a Blind Person will "see" your Web Page**

<http://www.humanfactors.com/accessibility/chocolateaudio.asp>

## Canadian Resources

### **Government of Canada – Internet Guide**

[http://www.canada.gc.ca/programs/guide/3\\_1\\_4e.html](http://www.canada.gc.ca/programs/guide/3_1_4e.html)

### **Guidelines on Universal Accessibility**

<http://w3.pwgsc.gc.ca/homepage/text/w6acc-e.html>

### **Accessibility: Standards and Guidelines for Government of Canada Web Sites**

[http://www.cio-dpi.gc.ca/clf-upe/a\\_e.asp](http://www.cio-dpi.gc.ca/clf-upe/a_e.asp)

### **Web Site Accessibility Testing Service (WATS) For Government of Canada Web Designers**

[http://www.cio-dpi.gc.ca/clf-upe/1/wats/wats\\_e.asp](http://www.cio-dpi.gc.ca/clf-upe/1/wats/wats_e.asp)

### **Universal Instructional Design Project – University of Guelph**

<http://www.tss.uoguelph.ca/uid/uidprinciples.html>

### **Adaptech – Dawson College, Montreal**

<http://omega.dawsoncollege.qc.ca/adaptech/pubs/AdaptechBestPracticesList.htm>

## Readings

### **Accessibility of the Internet in Post-Secondary Education**

<http://www.webaim.org/articles/meetchallenge>

### **Distance Education: Access Guidelines for Students with Disabilities**

<http://www.htctu.fhda.edu/dlguidelines/final%20dl%20guidelines.htm>

### **E-learning and Students with Disabilities**

<http://www.flexiblelearning.net.au/nw2000/main/key04.htm>

### **Creating an Accessible Electronic Campus**

<http://www.utexas.edu/admin/evpp/planning/ITCC/access.html>

### **Universal Design in Education, Frank G. Bowe (Textbook)**

[http://www.greenwood.com/books/BookDetail.asp?dept\\_id=1&sku=H688&imprintID=11](http://www.greenwood.com/books/BookDetail.asp?dept_id=1&sku=H688&imprintID=11)

### **Constructing Accessible web Sites (Textbook)**

[http://www.glasshaus.com/html/constructing\\_accessible\\_websites/accessiblewebsites.htm](http://www.glasshaus.com/html/constructing_accessible_websites/accessiblewebsites.htm)