



## Equal Access: UW Computer Labs

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As increasing numbers of students with disabilities attend the University of Washington (UW), the accessibility of computing facilities is critical. The vision is simply equal access. Everyone who needs to use your lab should be able to do so comfortably.

To make your lab accessible, employ principles of universal design (UD). Universal design means that rather than designing your facility for the average user, you design it for people with a broad range of abilities. Keep in mind that individuals using your lab may have learning disabilities or visual, speech, hearing, and mobility impairments.

As you plan services in your computing facility, consider all of your potential users, including those with disabilities. Make sure that everyone can

- get to the facility and maneuver within it,
- access printed materials and electronic resources, and
- make use of equipment and software.

Also, make sure that staff are trained to support people with disabilities and have a plan in place to respond to specific requests in a timely manner. With these key issues in mind, you can make sure that all qualified students can access your lab.

The following access guidelines provide minimum standards for computer labs at the UW.

### Minimum Access Requirements

1. Develop policies and procedures that ensure access to lab facilities, computers, and electronic resources for people with disabilities and demand that accessibility be considered in the procurement process.
2. Make sure pathways and entrances to the building are wheelchair-accessible and doorway openings are at least thirty-two inches wide and doorway thresholds are no higher than 1/2 inch.
3. Make aisles wide and clear for wheelchair users. Remove protruding objects for the safety of those who are visually impaired.
4. In key lab documents, include a statement about your commitment to universal access and procedures for requesting disability-related accommodations, such as, "Our computer lab is committed to making its resources available to all qualified students. Contact lab staff to report access barriers. Contact lab staff or Disabled Student Services (543-8924) to request specific accommodations."
5. Provide printed resources in a location that can be reached by a wheelchair user.
6. Provide an adjustable table for each type of workstation in your lab.
7. For signs, use high contrast and large print.



8. Make key documents available in formats accessible to those who have low vision or who are blind (e.g., large print, braille, electronic).
9. For lab resources on the web, employ principles of UD and follow campus accessibility guidelines.<sup>1</sup> Adhere to the federal government's web accessibility standards.<sup>2</sup>
10. Label computers with accessible features in large print and braille.
11. Although a lab cannot be expected to have specialized equipment for every type of disability on hand, staff should make equipment available that they anticipate will be used or is available at relatively low cost. Provide
  - a wrist rest and forearm rest;
  - a trackball, joystick, or other mouse alternative;
  - software to modify keyboard response such as sticky keys, repeat rate, and keystroke delay (options often provided with computer's operating system); and
  - large print keytop labels, screen enlargement software, and a large monitor (at least seventeen inches).
12. Develop a procedure to ensure a quick response to requests for assistive technology that you do not currently have available or for other disability-related accommodations. The UW Access Technology Center<sup>3</sup> provides consultation ([atl@uw.edu](mailto:atl@uw.edu)).
13. Train staff on accessible products available in the lab, appropriate communication with students who have disabilities (see Communication Hints at the end of this publication), and procedures for addressing requests for accommodations.

Once a lab is established or if it has greater requirements, consider adding:

- Scanner and Optical Character Recognition (OCR) software;
- CCTV (Closed Circuit Television) to enlarge text of printed documents;
- Braille printer and Braille translation software;
- word prediction software;
- keyboard guards;
- alternative keyboards;
- alternatives to keyboards such as mini keyboards, extended keyboards, a head pointing system, a switch based interface, voice dictation software, one-handed keyboards, or "keyboard layout" software;
- screen-reading software and a speech synthesizer;
- speech input software; and
- hearing protectors available for users who are distracted by noise in the facility.

## Resources

Assistive technology and UD of electronic resources,<sup>4</sup> videos, publications, and web resources.

*Equal Access: Computer Labs*<sup>5</sup> is a video presentation and publication about making computer labs accessible.

UW's *Web Accessibility* page<sup>6</sup>

## Cited Web Resources

1. [itconnect.uw.edu/learn/accessible/atc/accessibility-services/accessibility-consulting/](http://itconnect.uw.edu/learn/accessible/atc/accessibility-services/accessibility-consulting/)
2. [www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards](http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards)
3. [itconnect.uw.edu/learn/accessible/atc/](http://itconnect.uw.edu/learn/accessible/atc/)
4. [uw.edu/doit/videos/index.php?vid=12](http://uw.edu/doit/videos/index.php?vid=12)
5. [www.uw.edu/accessibility/web/](http://www.uw.edu/accessibility/web/)



## About DO-IT

DO-IT (Disabilities, Opportunities, Internetworking, and Technology) serves to increase the successful participation of individuals with disabilities in challenging academic programs such as those in science, engineering, mathematics, and technology. Primary funding for DO-IT is provided by the National Science Foundation, the State of Washington, and the U.S. Department of Education.

For further information, to be placed on the DO-IT mailing list, request materials in an alternate format, or to make comments or suggestions about DO-IT publications or web pages, contact:

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Grants and gifts fund DO-IT publications, videos, and programs to support the academic and career success of people with disabilities. Contribute today by sending a check to DO-IT, Box 354842, University of Washington, Seattle, WA 98195-4842.

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## Communication Hints

Treat people with disabilities with the same respect and consideration with which you treat others. Here are some helpful hints when it comes to delivering a presentation, hosting an exhibit, and otherwise relating to people with disabilities.

### General

- Ask a person with a disability if that person needs help before providing assistance.
- Talk directly to the person with a disability, not through their companion or interpreter.
- Refer to a person's disability only if it is relevant to the conversation.
- Avoid derogatory slang or negative descriptions of a person's disability. For example, "a person who uses a wheelchair" is more appropriate than "a person confined to a wheelchair." A wheelchair is not confining—it's liberating!
- Provide information in alternate means (e.g., written, spoken, diagrams).
- Do not interact with a person's guide dog or service dog unless you have received permission to do so.
- Do not be afraid to use common terms and phrases, like "see you later" or "let's go for a walk" around people with disabilities.
- Do not touch mobility devices or assistive technology without the owner's consent.
- Do not assume physical contact, like handshakes, high-fives, or hugs are okay.
- Understand that not everyone uses eye contact.

### Blind or Low Vision

- Be descriptive. Say, "The computer is about three feet to your left," rather than "The computer is over there."
- Speak all of the projected content when presenting and describe the content of charts, graphs, and pictures.
- When guiding people with visual impairments, offer them your arm rather than grabbing or pushing them.

### Learning Disabilities

- Offer directions or instructions both orally and in writing. If asked, read instructions to individuals who have specific learning disabilities.

### Mobility Impairments

- Consider carrying on a long conversation with an individual who has a mobility impairment from a seated position.

### Speech Impairments

- Listen carefully. Repeat what you think you understand and then ask the person with a speech impairment to clarify or repeat the portion that you did not understand.

### Deaf or Hard of Hearing

- Face people with hearing impairments, and avoid covering your mouth, so they can see your lips. Avoid talking while chewing gum or eating.
- Speak clearly at a normal volume. Speak louder only if requested.
- Repeat questions from audience members.
- Use paper and pencil, or type things out on your cell phone, if the person who is deaf does not read lips or if more accurate communication is needed.
- When using an interpreter, speak directly to the person who is deaf; when an interpreter voices what a person who is deaf signs, look at the person who is deaf, not the interpreter.

### Psychiatric Impairments

- Provide information in clear, calm, respectful tones.
- Allow opportunities for addressing specific questions.