

## Legal Issues

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Americans with Disabilities Act Amendments of 2008 prohibit discrimination against individuals with disabilities.

According to federal law, no otherwise qualified individual with a disability shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity of a public entity.

“Qualified” with respect to postsecondary educational services, means “a person who meets the academic and technical standards requisite to admission or participation in the education program or activity, with or without reasonable modifications to rules, policies or practices; the removal of architectural, communication or transportation barriers; or the provision of auxiliary aids and services.”

“Person with a disability” means “any person who (1) has a physical or mental impairment which substantially limits one or more major life activities [including walking, seeing, hearing, speaking, breathing, learning, and working], (2) has a record of such an impairment, or (3) is regarded as having such an impairment.

Disabilities covered by legislation include (but are not limited to) AIDS, cancer, cerebral palsy, diabetes, epilepsy, head injuries, hearing impairments, specific learning disabilities, loss of limbs, multiple sclerosis, muscular dystrophy, psychiatric disorders, speech impairments, spinal cord injuries, and vision impairments.

## Accommodations

The student with a disability is the best source of information regarding necessary accommodations. In postsecondary settings it is the student’s responsibility to request disability-related accommodations, but a faculty member can include a statement on the class syllabus inviting students who have disabilities to discuss academic needs. An example of such a statement is “If you wish to discuss academic accommodations, please contact me as soon as possible.” On most campuses an office that supports students with disabilities informs instructors of reasonable accommodations for specific students.

### Universal Design

Universal design has been defined by Ron Mace at the Center for Universal Design as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” ([http://www.design.ncsu.edu/cud/about\\_ud/about\\_ud.htm](http://www.design.ncsu.edu/cud/about_ud/about_ud.htm)). Applications of universal design are described at the *Center for Universal Design in Education* at <http://www.uw.edu/doit/CUDE/>.

Universal design principles can be applied to the overall design of instruction as well as to specific instructional materials and strategies to improve access for everyone. For example, captions on multimedia benefit students with hearing impairments, those whose first language is not English, and people with some types of learning disabilities. Examples of how universal design of instruction can improve class climate; physical access, usability, and safety; delivery methods; information resources; interaction; feedback; and assessment can be found in *Equal Access: Universal Design of Instruction* at [http://www.washington.edu/doit/Brochures/Academics/equal\\_access\\_udi.html](http://www.washington.edu/doit/Brochures/Academics/equal_access_udi.html). Universal design minimizes, but does not eliminate the need for accommodations.

## Examples of Academic Accommodations

Disability	Accommodations
Low Vision	<ul style="list-style-type: none"> <li>• Seating near front of the class</li> <li>• Large print handouts, lab signs, and equipment labels</li> <li>• TV monitor connected to microscope to enlarge images</li> <li>• Class assignments made available in electronic format</li> <li>• Computer equipped to enlarge screen characters and images</li> </ul>
Blindness	<ul style="list-style-type: none"> <li>• Audio-taped, Brailled or electronic-formatted lecture notes, handouts, and texts</li> <li>• Verbal descriptions of visual aids</li> <li>• Raised-line drawings and tactile models of graphic materials</li> <li>• Braille lab signs and equipment labels, auditory lab warning signals</li> <li>• Adaptive lab equipment (e.g., talking thermometers, calculators, light probes, and tactile timers)</li> <li>• Computer with optical character reader, speech output, Braille screen display, and printer output</li> </ul>
Hearing Impairment	<ul style="list-style-type: none"> <li>• Interpreter, real-time captioning, FM system</li> <li>• Notetaker</li> <li>• Visual aids</li> <li>• Written assignments, lab instructions, summaries, notes</li> <li>• Use of email for class and private discussions</li> <li>• Visual warning system for lab emergencies</li> </ul>
Learning Disability	<ul style="list-style-type: none"> <li>• Notetaker and/or audio-taped class sessions</li> <li>• Captioned films</li> <li>• Extra exam time, alternative testing arrangements</li> <li>• Visual, aural, and tactile instructional demonstrations</li> <li>• Computer with voice output, spellchecker, and grammar checker</li> </ul>
Mobility Impairment	<ul style="list-style-type: none"> <li>• Notetaker, lab assistant, group lab assignments</li> <li>• Classrooms, labs, and field trips in accessible locations</li> <li>• Adjustable tables, lab equipment located within reach</li> <li>• Lengthened pull-chains on safety showers</li> <li>• Class assignments made available in electronic format</li> <li>• Computer equipped with special input device (e.g., voice input, alternative keyboard)</li> </ul>
Health Impairment	<ul style="list-style-type: none"> <li>• Notetakers</li> <li>• Flexible attendance requirements</li> <li>• Extra exam time</li> <li>• Assignments made available in electronic format</li> <li>• Use of email to facilitate communication</li> </ul>

## Useful Teaching Techniques

Below you will find examples of teaching techniques in the classroom, laboratory, examinations, and field work that benefit all students, but are especially useful for students who have disabilities.

### Classroom

- Select course materials early so that students and the campus disabled student services office staff have enough time to translate them to audiotape, Braille, and large print.
- Make syllabi, short assignment sheets, and reading lists available in electronic format (e.g., CD, email, online).
- Design course webpages to be accessible to students with disabilities. For further information, refer to <http://www.uw.edu/computing/accessible/howto.html>.
- Face the class when speaking. Repeat discussion questions.
- Write key phrases and lecture outlines on the blackboard or overhead projector.

### Laboratory

- Take the student on a tour of the lab she or he will be working in. Discuss safety concerns.
- Assign group lab projects in which all students contribute according to their abilities.
- Arrange lab equipment so that it is accessible to and visible by everyone.
- Give oral and written lab instructions.

### Examination and Fieldwork

- Ensure that exams test the essential skills or knowledge needed for the course or field of study.
- Some students will require extra time to transcribe or process test questions. Follow campus policies regarding extra time on examinations.
- Consider allowing students to turn in exams via email or CD.
- Attempt to include student in field work opportunities, rather than automatically suggesting non-field work alternatives. Ask students how they might be able to do specific aspects of field work.
- Include special needs in requests for field trip vehicle reservations.

## Video

The videos, *Working Together: Faculty and Students with Disabilities*, *Building the Team: Faculty, Staff, and Students Working Together*, and *Equal Access: Universal Design of Instruction* may be freely viewed online at <http://www.uw.edu/doit/Video/>, or purchased in DVD format.

## About DO-IT

DO-IT (Disabilities, Opportunities, Internetworking, and Technology) serves to increase the successful participation of individuals with disabilities in challenging academic programs and careers, 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, or to request materials in an alternate format, contact:

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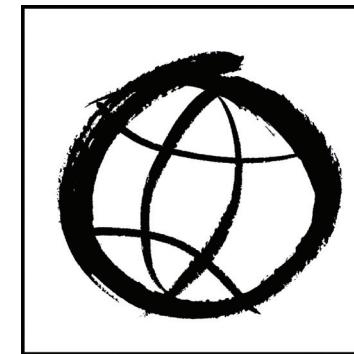
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## Campus Resources

[Contact DO-IT at 206-685-3648 to have this brochure personalized with your campus resources.]



**DO-IT**

**Working Together:**  
Faculty and Students with  
Disabilities

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