## Legal Issues

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and 2008 amendments, and state laws prohibit discrimination against individuals with disabilities. According to these laws, 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. They apply to educational programs at all levels.

The Individuals with Disabilities Act (IDEA) mandates that each state provide free and appropriate education for all children, regardless of abilities and disabilities. It requires that individual education plans (IEPs) be developed for students with disabilities who meet certain criteria. Other students with disabilities may have Section 504 plans.

Disabilities covered by legislation include (but are not limited to) low-vision, blindness, hearing impairments, learning disabilities, mobility impairments, and health impairments.

## Working Together: Teachers and Students

Teachers should be responsive to the pedagogical needs of all students. However, students with disabilities may have some unique educational needs. Although you may receive direction regarding academic adjustments and accommodations through IEP plans and Section 504 plans for specific students, it is good to be thinking about the broad range of abilities, disabilities, and other characteristics of potential students as you design your curriculum. This approach is called universal design of instruction (see *www.uw.edu/doit/Brochures/Academics/instruction.html*.)

To help students with disabilities develop self advocacy skills that they will need to apply in college, careers, and other life activities, privately discuss with students their individual learning styles and needs. By the end of their high school years, students with disabilities should be the best source of information regarding the assistive technology, alternate formats, assignment and test-taking adjustments, and other accommodations they need to succeed in postsecondary studies and employment. In these settings, it is the individual's responsibility to request reasonable accommodations. Precollege teachers can help a students become comfortable doing this.

## Useful Teaching Techniques

Below you will find examples of teaching techniques in the classroom, laboratory, examinations, and fieldwork 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 *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.

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### Examples of Academic Accommodations

| Disability | Accommodations |
|---|---|
| Low Vision | • Seating near front of the class<br>• Large print handouts, lab signs, and equipment labels<br>• TV monitor connected to microscope to enlarge images<br>• Class assignments made available in electronic format<br>• Computer equipped to enlarge screen characters and images |
| Blindness | • Audiotaped, Brailled or electronic-formatted lecture notes, handouts, and texts<br>• Verbal descriptions of visual aids<br>• Raised-line drawings and tactile models of graphic materials<br>• Braille lab signs and equipment labels, auditory lab warning signals<br>• Adaptive lab equipment (e.g., talking thermometers, calculators, light probes, and tactile timers)<br>• Computer with optical character reader, speech output, Braille screen display, and printer output |
| Hearing Impairment | • Interpreter, real-time captioning, FM system<br>• Notetaker<br>• Visual aids<br>• Written assignments, lab instructions, summaries, notes<br>• Use of email for class and private discussions<br>• Visual warning system for lab emergencies |
| Learning Disability | • Notetaker and/or audiotaped class sessions<br>• Captioned films<br>• Extra exam time, alternative testing arrangements<br>• Visual, aural, and tactile instructional demonstrations<br>• Computer with voice output, spellchecker, and grammar checker |
| Mobility Impairment | • Notetaker, lab assistant, group lab assignments<br>• Classrooms, labs, and field trips in accessible locations<br>• Adjustable tables, lab equipment located within reach<br>• Lengthened pull-chains on safety showers<br>• Class assignments made available in electronic format<br>• Computer equipped with special input device (e.g., voice input, alternative keyboard) |
| Health Impairment | • Notetakers<br>• Flexible attendance requirements<br>• Extra exam time<br>• Assignments made available in electronic format<br>• Use of email to facilitate communication |

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### 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 fieldwork opportunities, rather than automatically suggesting non-fieldwork alternatives. Ask students how they might be able to do specific aspects of fieldwork.
- 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 *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, request materials in an alternate format, or to make comments or suggestions about DO-IT publications or web pages, contact:

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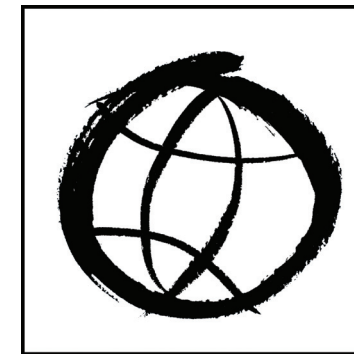Founder and Director:
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**University of Washington**
College of Engineering
UW Information Technology
College of Education

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[Make your own modifications or contact DO-IT at doit@uw.edu to have this brochure personalized with your school's resources.]

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# Working Together:

## K-12 Teachers and Students with Disabilities

**Disabilities**
**Opportunities**
**Internetworking**
**Technology**