Specific Guidelines for Disabilities

- **INSTRUCTING STUDENTS WHO ARE BLIND OR VISUALLY IMPAIRED**
  - Speak to the student when you approach her or him.
  - State clearly who you are; speak in a normal tone of voice.
  - Tell the student when you are leaving; never leave a person who is blind talking to an empty space.
  - Do not attempt to lead the student without first asking; allow the student to hold your arm and control her or his own movements.
  - Be descriptive when giving directions; give the student verbal information that is visually obvious to persons who can see. For example, if you are approaching steps mention how many and the direction.
  - If you are offering a seat, gently place the student's hand on the back or arm of the chair and let her or him sit down by her or himself.
  - Ask if the student needs assistance signing forms. Offer to guide her or his hand to the appropriate space for signature.
  - Offer assistance if the student appears to be having difficulty locating a specific service area.

- **INSTRUCTING STUDENTS WHO ARE DEAF OR HARD OF HEARING**
  - Gain her or his attention before starting a conversation (i.e., tap the person gently on the shoulder or arm).
  - Identify who you are (i.e., show them your name badge).
  - Look directly at the student, face the light, speak clearly, in a normal tone of voice, and keep your hands away from your face; use short, simple sentences.
  - Ask the student if it would be helpful to communicate by writing or by using a computer terminal.
  - If you telephone a student who is hard of hearing, let the phone ring longer than usual; speak clearly and be prepared to repeat the reason for the call and who you are.
If you telephone a student who is deaf, use your state telecommunications relay service. The number is listed in the front of the telephone directory. Consideration should also be given to purchasing a TDD or TTY.

INSTRUCTING STUDENTS WITH SPEECH IMPAIRMENTS

- If you do not understand something do not pretend that you do; ask the student to repeat what he or she said and then repeat it back.
- Be patient; take as much time as necessary.
- Try to ask questions which require only short answers, or a nod of the head.
- Concentrate on what the student is saying; concentrate on listening and communicating.
- Do not speak for the student or attempt to finish her or his sentences.
- If you are having difficulty understanding the student, consider writing as an alternative means of communicating, but first ask the student if this is acceptable.
- If no solution to the communication problem can be worked out between you and the student, ask if there is someone who could interpret on the student's behalf.

INSTRUCTING STUDENTS WITH MOBILITY IMPAIRMENTS

- Put yourself at the wheelchair user's eye level. If possible, sit next to the student when having a conversation.
- Do not lean on a wheelchair or any other assistive device.
- Do not assume the student wants to be pushed - ask first.
- Provide a clipboard as a writing surface if counters or reception desks are too high; come around to the student side of the desk/counter during your interaction.
- Offer assistance if the student appears to be having difficulty opening the doors.
- Make sure there is a clear path of travel.
- If a person uses wheelchair, scooter, crutches, a walker, or some other assistive equipment, offer assistance with coats, bags, ponchos, or other belongings.
- If you telephone the student, allow the phone to ring longer than usual to allow extra time for her or him to reach the telephone.

INSTRUCTING STUDENTS WITH A COGNITIVE DISABILITY

- Be prepared to provide an explanation more than once.
Offer assistance with and/or extra time for completion of forms, understanding written instructions, and/or decision-making.

Be patient, flexible, and supportive; take time to understand the student and make sure the student understands you.

Listen and maintain eye contact without staring.

Make the student feel comfortable.

Treat the student with dignity, respect, and courtesy.

Offer assistance without being insistent.

Ask the student to tell you the best way to help.

Deal with unfamiliar situations in a calm, professional manner.

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**General Practices**

Sources:
* Thomas McEwan, Lecturer; Sandra Cairncross, Senior Lecturer and Teaching Fellow; Ailean MacLean, Lecturer and Teaching Fellow; all School of Computing
* Interview with Janet Norman, DSS

* Contact DSS before purchasing curriculum (e.g., My Math Lab).

* Don’t believe everything curriculum publishers tell you about accessibility (e.g., My Math Lab is not accessible, Foreign Language online Spanish component is not accessible).

* Know your network of go to people on disabled issues:
  - Faculty / staff ADA issues – Dr. Watson Harris
  - Physical access issues – Facilities
  - Adaptive Technology – Amy Burks

* Adopt Universal Design concepts and methodologies

* Make your web sites an “Access Friendly Web Site.” [www.accessibility.org/bobby-approved.html](http://www.accessibility.org/bobby-approved.html) is a good place to start.
• Make it a priority to peruse the University’s ADA Compliance Office web site: http://www.mtsu.edu/ada/

• Making our notes available electronically (in Microsoft Word or plain HTML format) so that students can change the font size to suit their needs

• The move towards a more accessible curriculum can also be viewed as a positive challenge, offering us an opportunity to evaluate all our teaching and to consider alternative ways of delivering the curriculum, engaging students in the learning process, and providing a wider and more flexible range of assessment methods. In other words applying what we teach to how we teach, through considering the needs of all our users (learners) and improving the “usability” of our (learning) products for all.

• This idea of “usable learning experiences” is especially important in widening and increasing participation in higher education, which brings more diverse student population, some with special needs and others with different skills and previous experiences. For example, providing teaching materials in an editable electronic format can help all students through enabling students to download the notes and annotate them.

• Some general classroom strategies include:
  - Face the class when speaking
  - Give both oral and written instructions
  - Repeat questions from students since not all students will be able to hear
  - Put key phrases on the screen/whiteboard/blackboard
  - Prepare material early enough for support staff to make adaptations (e.g. enlarging the notes)
  - Provide students with a list of new technical terms/abbreviations etc
  - Make material available electronically (reading lists, lecture notes, assessments)
  - Do not walk around the class or pace back and forth
  - In large lecture halls wear a microphone to overcome extraneous noise.

• Some students, for example, those with dyslexia, may have difficulty reading for long periods of time. Distributing teaching materials well in advance will allow them to work through the materials and assimilate the information. This strategy:
  - Enables students to prepare for the lecture
  - Allows students to listen to the lecture
  - Means that students do not have to rush to take notes
  - Enables students to be more active participants at the lecture
  - Mature students may lack confidence if they have been out of the education system for some years
  - Some students may never have given a presentation before
Through their disability (especially one that they wish not to disclose to others), a student may be anxious about group participation.

- To enable students to participate effectively
  - Consider seating arrangements so that students who lip-read can see everyone’s face
  - Only allow one individual to talk at any one time
  - Repeat what the student has said
  - Rephrase what the student has said if it is not particularly clear
  - Use a flipchart to record what a student has said
  - Put the main ideas of discussion on a board or chart
  - Provide discussion papers in advance of the tutorial

- **For blind or visually impaired student**
  - Ask everyone who speaks to introduce themselves
  - Verbalise to the student when anyone is entering or leaving the room

**For students with language impairments**

- It may be useful to repeat what has been said to help facilitate the presentation or aid the student to participate in the discussion

**For students who are deaf or hard of hearing**

- It may be useful to have breaks for students who lip-read since this can be tiring
- Ensure the room is quiet with minimal extraneous noise

We can help by working with all students to develop study skills; cramming should be discouraged and decomposition and mind mapping can be powerful tools for any learner.

Understanding, and responding to, the difficulties with which the dyslexic student contends, is key to improving their self-esteem and their ability to deal with stress, leading to better learning.

Miles concludes by saying “*we must not fall into the trap of allowing innovation in technology to outstrip its usefulness as a tool that enables accessibility and assessments, innovation is not necessarily an advancement if it is not accessible*”. This is a useful lesson for all of us in higher education and especially relevant to those of us in HCI with its emphasis on user-centred design - a reminder to apply *what we teach* to *how we teach* and to put the learner at the centre of innovation, not the technology.

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**Physically Handicapped Students**

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Source: http://specialed.about.com/od/physicaldisabilities/a/physical.htm
From Sue Watson, former About.com Guide

For students with physical handicaps, self-image is extremely important. Teachers need to ensure that the child's self-image is positive. Physically handicapped students are aware of the fact that they are physically different from most others and that there are certain things they cannot do. Peers can be cruel to other children with physical handicaps and become involved in teasing, casting insulting remarks and excluding physically handicapped children from games and group type activities. Physically handicapped children want to succeed and participate as much as they can and this needs to be encouraged and fostered by the teacher. The focus needs to be on what the child CAN do - not can't do.

Strategies that help:

- Physically handicapped children long to be normal and be seen as normal as much as possible. Focus on what they can do at all times.
- Find out what the child's strengths are and capitalize on them. These children need to feel as successful too!
- Keep your expectations of the physically handicapped child high. This child is capable of achieving.
- Never accept rude remarks, name calling or teasing from other children. Sometimes other children need to be taught about physical disabilities to develop respect and acceptance.
- Compliment appearance from time to time. (I had a child with CP who took immense delight when I noticed her new hair barrettes or a new outfit).
- Make adjustments and accommodations whenever possible to enable this child to participate.
- Never pity the physically handicapped child, they do not want your pity.
- Take the opportunity when the child is absent to teach the rest of the class about physical handicaps, this will help foster understanding and acceptance.
- Take frequent 1 to 1 time with the child to make sure that he/she is aware that you're there to help when needed.

Best Practices – Online Learning

Sources:

- At-Risk Online Learners: Reducing Barriers to Success by JoAnn T. Funk, Associate Professor, Kaplan University
  http://www.elearnmag.org/subpage.cfm?section=best_practices&article=32-1
- Interview with Dr. Maria Clayton
“…always keep the design of an online classroom as simple as possible, to "develop templates that increase accessibility and are easy to modify, [and] test your site with a variety of students with disabilities" (Casey, 1999, p. 4).

For those that cannot use a mouse, one must create keyboard shortcuts. The designer should also use a technique known as front-loading, which means putting the main idea at the front of each sentence or paragraph. This helps those that use screen readers. (Funk, n.d.)

They recommend that colleges build in design features at the time of making a new online course so that persons with disabilities can access the course immediately after its creation through perhaps closed captioning, descriptive narration, or assistive computer technology. The design of the course must equal the level of communication for those with or without disabilities. An example of this would be a document in an online course that is available using Adobe Acrobat Portable Document Format (PDF). These are difficult for the visually impaired to use with a screen reader and so an alternate should be available in HTML format.

Allow the user to control the amount of time it takes them to read or interact

Make all functions able to be performed with the keyboard or keyboard interface devices

They define a reasonable accommodation as any changes that allow students to perform in a program and benefit from all educational activities.

They advise their faculty to be sensitive to the needs of disabled students without giving undo attention to how courageous they are for overcoming obstacles and to remember that some disabilities are hidden from sight. They are entitled to be treated with dignity and respect and in the case of our college learners, as adults.

Edmunds tells us that students with disabilities like online education as much as "normal" students. In 2000 the NCES reported that 27.6 percent of surveyed students with disabilities were more satisfied with distance education than face-to-face. Even though these learners may use assistive technology, this does not remove all of the barriers. Many times the courses are not designed for different types of assistive technology, nor the many different disabilities.

Instructors with disabilities can also benefit from access to online education. For example, "Dr. Denise Lance, an online instructor with cerebral palsy, reports that accessible online education allows her to keep her disability hidden if she chooses" (Edmunds, 2003, p. 4). No one can judge her by her wheelchair or how she looks. Her brain is equal or superior to yours and mine.

Some accommodations are very simple. For example, avoid flickering items on your Web site that can trigger seizures for people with photosensitive seizure disorders, like epilepsy.
• To provide an alternative for a multimedia presentation, one can use the MAGpie Media Access Generator developed by the National Center for Accessible Media which provides captions for the multimedia files.

• A second example is for identifying row and column headers for data tables, we can use the Bobby validator developed by Watchfire to identify problems and then check manually (Edmunds, 2003). Bobby is a validation tool used by Web designers to determine access issues. As recently as 2002, a survey using Bobby found that only 23 percent of the Web pages examined passed and most of the errors were images without text explaining what they were for those who cannot see them.

• Some tools are logical for the instructor to use like providing adequate time and interaction for the disabled student's success

• So, one tool that can easily be used by educators of disabled students is to maintain high expectations and convey the strong message that they are worthy and can succeed.

• Provide digital versions of course materials [in our case, it would be very simple through the D2L shells each class is assigned each term]

• Insure Alt Text is used in all these files

• Confer with each student dealing with a disability as to what his/her specific needs are and what has helped in the past

• Use a variety of teaching/learning strategies

• Be flexible and open

• Make use of university resources

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**Partnering with our Students with Disabilities**

Source: David Robertson, ITD Practicum Student

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**Words to Consider**

• **Respect** – The freedom of a disabled student not to disclose their disability to class peers. Instructors need to take care not to “spill the beans” if a disability is not obvious.

• **Invite** – Involvement in the process for idea exchange.

• **Initiate** – Teachers reach out to disabled students with an attitude of “intentional availability.”
- **Chat** in person at the beginning of the semester in the instructor’s office
- **Check-in phone call** mid-semester (to discuss issues before they are past the point of no return)
- **End of semester email** inviting evaluation from the student as it relates to their disability. What worked? What did not work? What do we need to start? What do we need to stop?

**Partnerships** – Provide avenues for interested disabled students to develop in-class partnerships with volunteer fellow students (or students training in Special Education studies who get course credit for assisting a disabled student in- and out-of-class.)

**Easy-to-experience materials/presentations** - Create presentation materials where they are easily seen (not too small a font size, dark backgrounds with white or light letter works best)

**Accountability** - Hold disabled students accountable to their word. For example, if you ask how they are managing in your class and they say, “fine, no problems,” then take them at face value even if they may be struggling.

**Class room activities** – Consider the audience when planning activities.

**Announce** – Post on the syllabus and verbally announce that if anyone has a disability (or develops one during the semester) that they should see DSS for accommodations and let you know how you can work together.

**Guard the frustration factor** - Be careful to nonverbal communication in dealing with a disabled student.