



Teaching Students who are Deaf and Hard of Hearing

The term "hearing impaired" is a generic term that refer to students with any type or degree of hearing loss that interferes with development or adversely affects educational performance in a regular classroom setting. Individuals who have very little or no functional hearing may refer to themselves as "deaf", while people who have milder levels of hearing loss may label themselves as "hard of hearing".

People who are hard of hearing may only be able to hear specific frequencies or sounds within a certain volume range and may use a combination of hearing aids, lip-reading, and assistive listening devices such as FM systems and audio induction loop systems. Depending on the severity of the hearing loss and the age of onset, people who are deaf may have little or no speech and may use American Sign Language (ASL) or another form of sign language as their primary form of communication, or they may use hearing aids and/or cochlear implants and spoken language to communicate or a combination of spoken language and sign language.

(Adapted from DO-IT, University of Washington)

Some examples of possible accommodations that a student who is deaf or hard of hearing may require include (but are not limited to):

- "Dear Professor Memos" verifying the need for accommodations
- Priority/early course registration
- Accommodated testing for in-class and online exams and quizzes
- Captioned audio-visual materials
- Note-taking services and/or the use of an audio recorder for class lectures
- Sign language interpreters
- Usage of assistive listening devices and/or CART (real-time captioning)
- Allowance of laptops, tablets, or assistive technology in the classroom
- Regular advising meetings with an assigned D²A² advisor

The following are some considerations to keep in mind when working with students who are deaf and hard of hearing:

- Although they are constantly being refined, hearing aids only amplify sound rather than making sounds clearer or easier to understand and most often amplify ALL sounds around the person, including loud air conditioners, traffic noise, and other forms of background noise. Likewise, cochlear implants improve hearing in people with severe or profound hearing losses, but cochlear implants do not replace normal hearing. Hearing aids and cochlear implants are imperfect corrections and do not solve communication issues or cure an individual's hearing loss.

- Depending upon the age of onset of hearing loss and degree of hearing loss, a person may have clear spoken Standard English, unclear spoken Standard English, or use sign or a combination of spoken English and sign.
- Many people with hearing loss read lips and appear to understand the conversation. However, only about 30% of speech is able to be lip-read under ideal conditions, and up to 80% of the conversation will be missed.
- Students who use American Sign Language, which has a different grammatical structure from Standard English, may use proctored testing so that test questions that are written in English may be interpreted into sign language.

When working with students who are deaf and hard of hearing in the classroom, utilize the following guidelines:

- Use normal speech and speech patterns. Shouting or raising your voice when speaking to a person who has a hearing loss won't help them to understand you; rather, it can distort your words and make it even more difficult for them to understand what you are saying. In addition, don't exaggerate your words or obscure your face when you speak.
- Face the class as much as possible. Keep movements around the room to a minimum. Indicate when you will be moving from one place to another.
- Do not stand in front of a bright light or window when talking, as the light may make it difficult for the student to see your lips.
- Allow the student to choose where they would like to sit to maximize their ability to hear and understand during class. Some parts of a classroom that are prone to excess background noise such as doorways, windows, or noisy blower fans or heating units can make it more difficult for the student to hear.
- Get the student's attention before you speak. The student may need a touch on the arm or shoulder, a wave, or other signal.
- Provide important information such as assignment instructions, due dates for assignments and exams, and pertinent vocabulary and concepts in written format so that the student can refer back as needed.
- If possible, choose videos and other audio-visual materials that have closed captioning rather than non-captioned videos and materials.
- Ensure that the student understands what you are saying by providing notes of the conversation, and check for understanding before moving on.
- Be aware that, for a student with hearing loss, knowing where to focus attention when there are many speakers can be excruciating and exhausting. The student needs visual clues. Try to ensure one person, ideally visible to the student, is talking at a time.
- If the student also has a speech impairment, ask short questions requiring short-answers. Rephrase statements and questions until the student indicates understanding.
- Some suggested general classroom discussion rules to consider:
 - No talking over one another and one person speaks at a time
 - Repeat individual questions and responses to the group at large since not everyone will necessarily hear the question or response
 - When working in groups, each group sends a summary email to the rest of the group at the end of class to make sure everyone is on the same page

(Dr. Joie Williams, Regis University, via DSSHE-L listserv, 9/9/2016)

Using a Sign Language Interpreter

- Look at the student, not the interpreter, and maintain eye contact with the student, even if the student is looking at the interpreter and not directly at you. Refrain from asking the interpreter to tell the student something (i.e. “Tell him/her...”); instead, speak directly to the student and the interpreter will interpret what you are saying.
- Allow the interpreter to sit or stand near you; it is easier for the student to see the interpreter and any visual aids simultaneously if the interpreter is standing near the speaker.
- An interpreter can only interpret what one person is saying at a time; try to ensure that only one person is speaking at a time and allow enough time for the interpreter to identify who is speaking in addition to interpreting what is being said.
- Be aware that an interpreter will interpret EVERYTHING that is communicated in the classroom, including inappropriate language; if everyone can hear or see it, the interpreter will interpret it. The only exception to this is if it is obvious that the conversation is private, such as an instructor speaking privately to a student.
- Give the interpreter enough time to finish and allow the student time to participate after receiving the conversation from the interpreter.
- If technical words are necessary, give the interpreter enough time to fingerspell and explain them before moving on.
- Provide the interpreter with a copy of the course syllabus and any materials that will be discussed during class so that they can prepare for the class and study any important vocabulary terms prior to class.
- Know that some students who use an interpreter may choose to have the interpreter voice for them, while others may choose to use his or her own voice to communicate.

Using CART (Real Time Captioning)

Communication Access Real-Time Translation (CART), otherwise referred to as real-time captioning, is a service that provides a verbatim speech-to-text transcription for individuals who are deaf or hard of hearing in classrooms, meetings, workshops, presentations, and other live events. The student will give the professor a wireless microphone to wear that is connected to a laptop that the student will bring to class. A remote live stenographer will listen to the lecture through the professor’s microphone and caption what is being said in real-time for the student to read on their laptop during class. Some students rely primarily on CART to follow classroom lectures and discussions, while others prefer to follow the lecture or discussion via their residual hearing, lip-reading, an assistive listening device, and/or a sign language interpreter and use CART as a backup when they cannot understand. The following are some tips for working with a student who uses CART:

- Speak clearly in a normal tone of voice and at a normal pace. If the CART stenographer is having difficulty keeping up with you, the student or the CART stenographer may ask you to slow down or repeat a word or sentence for clarification.

- Since CART happens in real time, there is a delay between when you speak and when the student finishes reading the captioning. Factor in a time lag in response as the student moves from reading the captioning to participating in the class discussion or activity.
- Since it is nearly impossible for a student to read the CART captioning and look at printed or audio-visual materials simultaneously, allow enough time for the student to look at any handouts, PowerPoints, textbooks, or other audio-visual materials before continuing to speak.
- Try to ensure that only one person is speaking at a time during class discussions, as it is difficult for the CART stenographer to follow several people who are speaking at once. If possible, give the microphone to each speaker in a discussion so that the CART stenographer can hear them clearly and can caption what they are saying accurately.

Using Assistive Listening Devices (FM Systems and Remote Microphones)

Some students may utilize assistive listening devices in the classroom such as an FM system or a remote microphone in order to overcome distance, background noise, and reverberation that can make it difficult for a student with hearing loss to hear in the classroom. This will involve the professor wearing a specialized microphone (or other device) that transmits the professor's voice to a receiver that the student wears or directly to the student's hearing aid. The following are some tips for working with a student who uses an assistive listening device:

- Ensure that you wear the student's FM system or remote microphone correctly; the microphone should be worn approximately six to eight inches away from the speaker's mouth and should not be covered by any clothing, jewelry, or hair. Ask the student to show you how to wear their FM system or remote microphone correctly and check that the student can hear before beginning to speak.
- Repeat or rephrase any questions or comments from the class so that the student who is deaf or hard of hearing can also hear; if possible, pass the FM system or remote microphone around the classroom during class discussions.
- Try to limit as much background noise as possible, as background noise can make it more difficult to hear even with an assistive listening device.
- Like any other device, an assistive listening device is an augmentation tool – not a cure; therefore, continue to check understanding.

Additional Resources:

Make a Difference: Tips for Teaching Students who are Deaf or Hard of Hearing (PEPNet)	https://www.umaryland.edu/media/umb/oaacampus-life/disability-services-/documents/Tips-for-Teaching-Students-Who-Are-Deaf-or-Hard-of-Hearing.pdf
Best Practices for Teaching (DeafTEC, Rochester Institute of Technology, National Technical Institute for the Deaf)	https://www.deaftec.org/classact/challenges
Deaf or Hard of Hearing (DO-IT, University of Washington)	https://www.washington.edu/doit/deaf-or-hard-hearing
Deaf & Hard of Hearing (The University of Texas at Austin)	http://diversity.utexas.edu/disability/deaf-and-hard-of-hearing/
Working with Students who are Deaf or Hard of Hearing in a College Setting (Northern Essex Community College)	https://facstaff.necc.mass.edu/faculty-resources/deaf-and-hard-of-hearing-services-resources/working-with-students-who-are-deaf-or-hard-of-hearing-in-a-college-setting/
Suggestions from Faculty who have Worked with Students who are Deaf or Hard of Hearing (Northern Essex Community College)	https://facstaff.necc.mass.edu/faculty-resources/deaf-and-hard-of-hearing-services-resources/suggestions-from-faculty-who-have-worked-with-students-who-are-deaf-or-hard-of-hearing/
How to Search for Closed Captioned YouTube Videos (Lora Duvall, Walters State Community College)	https://www.youtube.com/watch?v=BJHWFPTUKw
Accessible Video and Audio (University of Washington)	http://depts.washington.edu/uwdrs/accessible-videos-and-audio/
Communication Access Realtime Translation: CART Services for Deaf and Hard-of-Hearing People (DO-IT, University of Washington)	https://www.washington.edu/doit/videos/index.php?vid=57
Interpreting and Real-Time Captioning (University of Washington)	http://depts.washington.edu/uwdrs/interpreting-and-real-time-captioning/
Deaf Culture (PEPNet)	https://www.rit.edu/ntid/radscc/sites/rit.edu.ntid.radscc/files/file_attachments/deaf_culture_tip_sheet.pdf