NDC
National Deaf Center
on Postsecondary Outcomes

Making Online Learning Accessible for Deaf Students: A Guide for Disability Services

Introduction

As of 2019, around 46% of deaf college students had taken online courses—almost half of all deaf students![1,2] Many educational activities also happen online, such as office hours, group projects, internships, conferences, or webinars. Deaf students can benefit from online learning in many ways, but thorough and proactive planning is needed for deaf students to experience the most benefit.[3]

This document has two main sections: **being proactive** and **being responsive**. All institutions have busy times and not-so-busy times. This guide gives disability service offices tools to increase readiness to serve deaf students through proactive planning and being prepared to respond to requests from students and faculty members.

Equitable Access Can Look Different Online

Accommodations that deaf students had for a face-to-face classroom may not be effective in an online course. Even accommodations used for one online course may need to be adjusted for another course. The communication preferences of deaf students often change across different settings and contexts. Deaf students also encompass a range of identities, experiences, and backgrounds. It is critical that disability service professionals consider these diverse backgrounds when coordinating access for online courses—for example, approximately 50% of deaf students have additional disabilities.[4] It is crucial to have an ongoing dialogue with students about auxiliary aids and services that support learning and communication for their online courses.

Be Aware of Legal Obligations

The legal obligation to provide equitable access does not change if classes are online—your institution is still responsible for ensuring that accommodations are provided and implemented effectively. Higher education institutions, whether private or public, are held accountable to the Americans with Disabilities Act (ADA) and to the standard of providing "effective communication."[5]

Take into account the student's experiences with accommodations and access, as "the student is in the best position to determine what type will be effective," according to a decision by the U.S. Department of Education's Office for Civil Rights.[6,7]

A recent class-action lawsuit, National Association of the Deaf v. Harvard and MIT, demonstrates example cases of litigation regarding accessible online media.[8] The institutions were found to be in violation of the ADA and Section 504 of the Rehabilitation Act for failing to provide captions for online courses.

Disability service offices need to remind instructors and departments of the risks and liability they pose to the institution when media and course content is not made accessible to deaf students and students with disabilities.
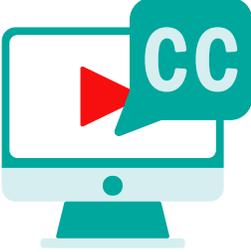
Be Proactive: Planning Ahead to Improve Equitable Access

Disability service offices need to be part of crucial conversations across campus to ensure that instructors and administrators plan for accessibility for online classes in a proactive way. These conversations should involve active collaborations with instructors, information technology (IT) offices, administrators, student programs, instructional support, service providers,[9] and more.

As a part of this proactive planning, encourage instructors to use a universal design approach to course development to ensure that courses are designed with accessibility in mind. When planning for online instruction for deaf students, consider the following components of proactive planning for better-quality access: identifying resources, developing resources, and sharing resources.
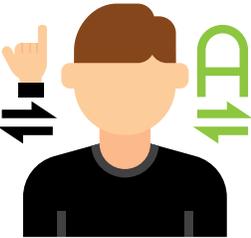
Identify Resources

Identify resources that can be used to support online learning for deaf students. What resources are available on campus? What external resources can be used to support instructors and students?

Support	Considerations
Technical Support	Help faculty members and students troubleshoot technical difficulties and provide technological solutions for access. What kind of support can the IT office on your campus provide? Do your online learning management systems have guides that can be used? Is the National Association for the Deaf's matrix of video conferencing platforms and accessibility options useful?[10]
Instructional Support	Help faculty members design effective online courses that include strategies for student engagement. Identify the instructional support at your institution to help faculty members make their courses accessible. Your campus may have an instructional innovation office, a center for teaching, or an instructional support office. The National Deaf Center on Postsecondary Outcomes (NDC) has produced a brief guide that instructors can refer to.[11] What other resources do your instructors need?
Media and Captioning Support	Identify campus resources to support faculty members and students with captioning their videos and providing visual access through image descriptions and alternative text. Consider the following questions: • Which office on your campus will caption media for faculty members? • Will that office caption student-created videos?
Student Services and Support Programs	Identify campus resources to support students with situations outside of the classroom but still a significant part of the collegiate experience. Does your campus have a tutoring center or other academic support resources? What support groups are available for students of color, veterans, first-generation students, or LGBTQ students? How are these campus resources accessible to deaf students? For more information, see NDC's tips for students.[12]

Develop Resources

Create resources to help instructors, students, and support providers ensure optimal accessibility in online courses. Don't wait for a formal accommodations request—be proactive! Consider what kind of support may be needed that is not currently available at your institution. Having tips and guides prepared will save everyone time when planning for online learning. You may want to work collaboratively with campus offices to develop some of the below resources.

Support	Considerations
Accessibility Statements for Syllabi	Develop a standard accessibility statement for online courses that instructors can easily add to their syllabus.[13] This statement should include information about the disability services office, procedures for getting accommodations, and a clear position of support for disabled students.
Learning Management System (LMS) Guides	Create tip sheets or guides on how to use the LMS at your institution. Consider questions such as the following: How are accommodations, like real-time captions and interpreters, integrated into the platform? Note that there are differences between asynchronous (self-paced) and synchronous (real-time) courses. Test the integration of accommodations, do some troubleshooting, and develop guidelines with tips that are specific to your institution's platform.
Video Conferencing Guides	For online teaching, web conferencing options such as Blackboard, Canvas, Zoom, and WebEx are often used. How will interpreters and captions be viewed on the screen? Most video conferencing products prioritize the audio feed over the video feed, which makes it difficult to view the interpreter when instructors share their screen or use other conferencing tools. Does the platform have the ability to connect and sync real-time captions? Again, note that these questions may have different answers depending on whether the course is synchronous or asynchronous.

Guides for Working With Service Providers	Guides and protocols can help service providers, such as speech-to-text professionals and interpreters, provide effective and high-quality access for deaf students in online courses. Service providers need access to the LMS, institutional resources, and class materials. The disability services office should work with the IT department to find a solution that works best for your institution. In some cases, you may need to create a user account for service providers, give service providers access to specific software, or provide a dedicated space on campus to use the high-speed internet connection. Are there best practices you can share with service providers for providing services online?
Guides for Integrating Accommodations in Online Platforms	How will students access interpreting or speech-to-text services while engaging in online classes? Do you need to recommend using separate platforms or apps for interpreting or speech-to-text services? Can other programs or equipment be used to access interpreters or captions? For example, a solution can be providing a tablet to deaf students to view interpreters by using video software outside of the course (e.g. FaceTime, Whereby, Skype, Zoom) or by using split-screen features.
Tips on Recording Classes and Lectures	Recording virtual meetings and lectures is beneficial if issues with internet connection, technology, or accommodations arise. We suggest adding tips on how to record meetings and lectures, as well as how to make prerecorded meetings and lectures accessible.
Captioning Protocols[14,15]	If they do not exist, create campus policies or procedures[16] for captioning media. Communicate with instructors on what to do if they need a video captioned and be sure to let them know of the turnaround time needed to obtain a captioned version of their media, including prerecorded lectures. This may involve using campus services[17] and requires consideration of who pays if costs are involved. Encourage instructors to seek out media that is already accessible for their courses and provide guidance on where they can find existing captioned materials. Remember, captions benefit everyone![18]

Share Resources

Share resources to ensure that all students, staff members, and instructors on campus are prepared to support online course accessibility. Proactively sharing resources will reduce the time fielding calls or answering recurring questions. Consider the following strategies for communicating proactively about best practices and resources for online accessibility:

- Create a searchable webpage with all related procedures, guides, resources, links, contacts, and more.
- Send regular reminder emails and/or updates to the campus community, and directly to instructors, several times a year.
- Have direct links or easily accessible information on accommodation letters, on request forms, and in syllabi.
- Add information and links to email signatures.
- Consider hosting webinars or other similar meetings to share information, discuss guidelines, and answer questions. Invite instructors who have taught deaf students and instructors who will teach deaf students for the next semester.
- Create templates for events and organizations, such as a boilerplate paragraph about accessibility for events that includes who to contact and timelines for access.

Be Responsive: Responding to Student Requests

When supporting online access, consider the following best practices and approaches when requests are made or when you become aware of an access consideration. Don't forget to ask students about access to campus programs and services such as tutoring sessions and advising appointments. This list is specific to online courses—for more ideas, refer to our resource *Serving Deaf Students in Higher Education: A Toolkit for Disability Services Professionals*.[19]

Let Students Lead

When shifting to online learning, have a conversation with the student to identify any changes or different needs. Encourage students to review their syllabus to identify additional accommodations needs, such as videos that will need captioning or group work outside of class. Students know their own needs best. Let them lead the way in identifying additional support to succeed in online learning. As referenced in the legal obligations section, note that substituting an accommodation for one that a student did not request may reduce the student's access to a course.

Ask the Right Questions

When working toward online class accessibility, asking instructors and students the right questions is important. This dialogue should remain open throughout the semester in case of changes or other issues. Each online course is unique! The following questions should be considered when you talk about access with students and instructors.

Question	Considerations
Will course activities be synchronous or asynchronous?	For synchronous activities, access providers must be scheduled in advance and included in real time. For asynchronous activities, all materials must be made accessible ahead of time. There are unique access considerations for each course type.
How will student discussion happen?	Synchronous discussions need clear guidelines to ensure that deaf students can follow the conversations. If students will upload video responses, plan for accessibility. Ask whether the deaf student plans to submit video responses in American Sign Language.
Are the appropriate hardware and equipment available?	Instructors, students, and service providers need to evaluate the capacity of their computer or mobile devices, quality of webcams, and quality of headsets and microphones. If students or service providers need equipment, identify campus resources for loaning the needed equipment.
Is high-speed internet access available?	If the course involves synchronous activities, high-speed internet is crucial. The video connection needs to be reliable and clear enough to follow conversations; use an Ethernet cable for a better connection. If high-speed internet is not available at home, find an alternate location. Consider creating a secure and private space with high-speed internet in the disability services office for service providers.
What activities occur outside of class time?	Accessibility plans need to consider office hours, tutoring support, and group work. Consider how accommodations will be provided for these activities.

Be Familiar With Accommodations for Online Courses

Online accommodations often require different considerations from face-to-face courses. Consider implementing a trial-and-error period to figure out what works best for the student. Ensure that instructors, service providers, and students have thought through the logistics for providing accommodations online. It helps when everyone is on the same page. For example, if an instructor has a better understanding of how assistive listening systems work, the instructor may be more thoughtful about improving audio quality. NDC has some resources to help—see our Remote Services page.[20]

Accommodation	Considerations
Assistive Listening Systems	Students who use assistive listening systems may need to consider streaming audio to their personal hearing devices (e.g., hearing aids and cochlear implants) or using noise-reducing headphones for clearer audio access. For more information, see our Assistive Listening Systems 101 resource.[21]
Note Taking and Transcripts	Note taking: • Note taking is **not** a substitute for transcripts. Transcripts should be provided as a backup for technical issues, such as an interpreter's video cutting out. • Deaf students may have limited capacity to take notes because they must split their attention between the instructor, classmates, presented materials, and accommodations (e.g., sign language interpreters, speech-to-text services). Therefore, providing note taking accommodations is appropriate for deaf students, even when online. • For more information, see our note taker resources.[22,23] Transcripts: • When/if using speech-to-text services, ask about making transcripts available to download, especially in cases of technical issues or difficulties.[24,25] • If using the chat function during video, enable the ability to download the chat, if available.

Alt Text and Visual Descriptions[26]	Alternative text (alt text) and visual descriptions are text-based descriptions of visual content. These benefit blind, deafblind, and low-vision students. Alt text is typically hidden by internet browsers but can be read by screen readers. Visual descriptions go into more detail and can be used in image captions, embedded in the body of the text, or uploaded as attachments. There are many different strategies for adding alt text or visual descriptions to your content, depending on the platform. Some platforms automatically add alt text, but check for accuracy!
Captioned Media and Speech-to-Text Services	• As standard practice, all videos, podcasts, audio tracks, and related media must be accessible by providing captions and transcripts as appropriate. • Speech-to-text services can be used in real time (e.g., live lectures, meetings) or for prerecorded media (e.g., videos, podcasts). Be wary of platforms that advertise "captioning" without hiring a qualified speech-to-text provider. Auto-generated captions (or automatic speech recognition) are not considered equitable access due to the high error rate this type of transcription typically produces. • For more information, see our speech-to-text and captioned media resources.[24,27]

Being Proactive and Responsive Is a Win!

Incorporating these strategies helps make courses more universally accessible to all students. Being proactive saves time and money in the long run and streamlines accommodations implementation. Being responsive ensures that deaf students feel welcomed, listened to, and supported as they navigate online learning. These strategies can help your institution support optimal online experiences for deaf students, and the strategies are also beneficial for hearing students. Check out additional resources, professional development, and support from NDC today![28]

Notes and References

1. The term *deaf* is used in an all-inclusive manner to include people who identify as deaf, deafblind, deafdisabled, hard of hearing, late-deafened, or hearing impaired. NDC recognizes that for many individuals, identity is fluid and can change over time or with setting. NDC has chosen to use one term, *deaf*, with the goal of recognizing the shared experiences of individuals from diverse deaf communities while also honoring their differences.

2. Palmer, J. L., Cawthon, S. W., Garberoglio, C. L., & Ivanko, T. (2019). *ACCESS is more than accommodations: 2018–2019 deaf college student national accessibility report*. National Deaf Center on Postsecondary Outcomes, The University of Texas at Austin.

3. National Deaf Center on Postsecondary Outcomes. (2019). *Online learning: benefits and barriers*. **nationaldeafcenter.org/online-learning-benefits**

4. Newman, L., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., Wei, X., Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Schwarting, M. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2011-3005). SRI International.

5. National Deaf Center on Postsecondary Outcomes. (2019). *Effective communication*. **nationaldeafcenter.org/resource/effective-communication**

6. National Deaf Center on Postsecondary Outcomes. (2017). *Equitable access guide: Understanding legal responsibilities for institutions* (Vol. 2). **nationaldeafcenter.org/eag**

7. U.S. Department of Education Office of Civil Rights. (2012). Letter to Santa Ana College. **ed.gov/policy/gen/leg/foia/santa-ana-college.pdf**

8. Leduc, J. (2020). *Overview of NAD v. Harvard and NAD v. MIT lawsuits*. **3playmedia.com/2020/03/25/harvard-mit-sued-captioning-violation-ada-rehabilitation-act**

9. "Service providers" denotes interpreters or speech-to-text providers. For more information on service providers and related topics, go to **nationaldeafcenter.org/dsptoolkit**

10. National Association of the Deaf. (2020). *Video conferencing platforms feature matrix*. **nad.org/videoconferencing-platforms-feature-matrix**

11. National Deaf Center on Postsecondary Outcomes. (2020). *Tips for instructors: Teaching deaf students online*. **nationaldeafcenter.org/resource/tips-instructors-teaching-deaf-students-online**

12. NDC's FAQs for students: **youtube.com/playlist?list=PLCXvz50QBXj6Xbg--v0l7z2RJi9zNjuMt**

13. Here is one resource on syllabus design (we like the Examples section): **exploreaccess.org/projectshift-refocus/syllabus.htm**

14. See our Captioned Media Services topic page: **nationaldeafcenter.org/topics/captioned-media**

15. National Deaf Center on Postsecondary Outcomes. (2019). *Why captions provide equal access*. **nationaldeafcenter.org/captionaccess**

16. Enamorado, S. (2017). *How 3 schools approach university-wide captioning*. **3playmedia.com/2017/11/21/how-3-schools-approach-university-wide-captioning**

17. National Deaf Center on Postsecondary Outcomes. (2020). *Your questions, answered*. **nationaldeafcenter.org/covid19faqs#CaptionResponsibility**

18. Gernsbacher, M. A. (2015). Video captions benefit everyone. *Policy Insights From the Behavioral and Brain Sciences, 2*(1), 195–202.

19. National Deaf Center on Postsecondary Outcomes. (n.d.). *Serving deaf students in higher education: A toolkit for disability service professionals*. **nationaldeafcenter.org/dsptoolkit**

20. See our Remote Services topic page: **nationaldeafcenter.org/remoteservices**

21. National Deaf Center on Postsecondary Outcomes. (2019). *Assistive listening systems 101*. **nationaldeafcenter.org/als101**

22. National Deaf Center on Postsecondary Outcomes. (2019). *Note taking: An introduction*. **nationaldeafcenter.org/intronotetaking**

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24. National Deaf Center on Postsecondary Outcomes. (2019). *Speech-to-text services: An introduction*. **nationaldeafcenter.org/introstt**

25. National Deaf Center on Postsecondary Outcomes. (2019). *Developing contracts and requesting bids: Interpreters and speech-to-text providers*. **nationaldeafcenter.org/contracts**

26. Selected guidelines are available from the Cooper Hewitt Smithsonian Design Museum: **cooperhewitt.org/cooper-hewitt-guidelines-for-image-description**

27. National Deaf Center on Postsecondary Outcomes. (2019). *Creating offline captions*. **nationaldeafcenter.org/offlinecaptions**

28. For example, see our eLearning courses: **nationaldeafcenter.org/learn**