This Q & A is provided to help faculty navigate how the switch to online coursework may impact course accessibility for deaf and hard of hearing students (DHH). We have included some general considerations to keep in mind when transitioning your courses to an online format, while ensuring that course content is still accessible for DHH students. Most of the focus offered is on the online tool ZOOM, as most faculty find it relatively easy to navigate. We hope these considerations are helpful!

Synchronous Classes

Q: **What do my students with hearing impairments need from me, now that my class is online, in real time?**

A: Please ask your student what they need. The switch to an online platform, *may* change the type of communication that your student needs. The services your student used previously, ASL or CART (captioning), can still be available, but may no longer be the best option to meet their accessibility needs. Once you determine together what communication method makes sense moving forward, let SAS know, at access@marymount.edu, so that appropriate services can be arranged.

Q: **If I am planning to offer all or some of my classes in a live Zoom format, how do I include live captioning? Is there a special feature on Zoom that helps instructors set up CART (Communication Access in Real Time), for their respective classes?**

A: Zoom offers this very helpful instructional video on how to include captioning within live instruction. https://support.zoom.us/hc/en-us/articles/207279736 .
Please note that this feature requires Marymount's SAS office to coordinate provision of the live captioning service through a third party. *ZOOM as a tool by itself, does not caption in real time.*

Q: **Do I need live captioning services if I plan to record class sessions?**

A: No, you do not need live captioning if you:
- Allow for the automatic caption feature to work on your recorded class meetings;
- Edit the resulting automatically created transcript of the recording;

- Only use the pre-recorded captioned material as your class meeting instead of providing a live meeting.

Q: **How do I provide captions on my Zoom recorded class meetings?**

A: Zoom can be used to record and automatically caption your lectures. It is necessary to record "to the cloud" in order to use Zoom's automatic captioning feature. Do not select the "record to my desktop" option in order to obtain captions.

Q: **Will the Zoom provided captions be ready to share with students immediately after I record the lecture/class meeting?**

A: The Zoom transcript may require editing. This is easy to do, but may be time consuming, depending on the quality of the recording.

Q: **How can I share the captioned recording with my students?**

A: The edited transcript can be shared with students, either through the link or after downloading and depositing the material directly in Canvas. More information can be found here: https://support.zoom.us/hc/en-us/articles/207279736

Q: **If I offer my classes in a live format, is it OK to not arrange for captioning services as well?**

A: Classes held in a live format do not require captioning services for students who depend primarily upon ASL (American Sign Language) interpretation. However, some hearing impaired students may need live captioning if the content shared during class is highly technical in nature. Precise technical vocabulary is more difficult to convey using ASL than it is in written English. Please think about your class and ***ASK your student*** what their needs are. *Determine a communication plan together.*

Q: **If I offer my classes in a live format and plan to use ASL interpretation, do I need to use two ASL interpreters or can I use only one?**

A: ASL signing can be exhausting beyond an hour of continuous work for any single individual. If your class session lasts more than one hour, then the rule of thumb is that you must use two interpreters, so that they can switch off between one another.

Often when one ASL interpreter is not the primary focus of the DHH student's attention, that interpreter serves as a secondary interpreting backup. This backup function assists the primary interpreter in developing quick responses for technical vocabulary.

Q: **Do I need closed captioning as well as ASL interpreting for a class?**

A: Probably not. Discuss specific communication needs with your student and consult SAS for clarification if necessary.

Q: **How do I allow for my DHH student to add to classroom discussion in real time?**

A: The online "chat" function is available for student to communicate in real time.

Q: **Does it matter if students are offered the ability to speak in the online class?**

A: Yes, it matters. It is NOT OK to allow other students to voice responses in real time, when this is not possible for a DHH student. ALL students can be attending class with muted audio, and all students can have access to the chat function to type their questions, thought and responses.

Q: **Can I mute all students in my ZOOM class and have everyone use the chat feature to participate in discussion, or ask questions? I attended a live webinar this week and all participants were muted except for the presenter. Is this an acceptable in a teaching format?**

A: When offering a Zoom meeting/class, it is absolutely OK from an accessibility perspective to mute everyone. In fact, muting all participants, except the speaker/professor typically enhances the quality of a recording. It is important that the speaker is discernable from other background noises or additional speakers in order for a quality recording to be created.

Q: **Why is it OK to use automated transcription for a recorded class and not for a live class? Why isn't it acceptable to use automated captioning in all circumstances?**

A: Automated transcription is not possible during a live class. If a class is conducted in real time, every student must be offered an equal opportunity to engage in the material at the same time. This means that live captioning must be arranged for and integrated into the live feed of the class. Arranging for live captioning can be more complex than arranging for ASL interpreting services.

Q: What tools are available to caption my recorded lectures/class meetings?
A: Both Panopto and Zoom can automatically caption course content.

Q: Can a third-party CART provider add captions to a recorded lecture/class meeting?
A: No, CART providers are used to support students' **real time** communication access. CART provides, aka live transcriptionists, are not able to replay or pause persons who are speaking while they are creating captions.

Q: Am I as the professor responsible for providing captions on all recorded class meetings/lectures?
A: Yes. Pre-recorded materials should be accessible to all class participants, including DHH students.

Asynchronous Classes

Q: Why is it important to consider delivering my class in asynchronous recoded format?
A: Asynchronous, recorded classes offer several benefits, to include the following:

- Continued access even if there is a shortage of available ASL or CART providers.
- Continued access to content, even if ASL, CART providers, or professors become ill.
- Asynchronous classes benefit students with Traumatic Brain Injuries, concussions and learning disabilities, not only DHH students.

- Notetaking services will be provided through the captions accompanying the recorded class meetings.
- The U.S. Department of Education very recently announced that while it recognizes the challenges of most educational institutions moving into an online environment, that federal access obligations remain unchanged.

Q: **Zoom's Help Center guide provides information about live-captioning. Why is there no instruction about how to caption recorded information?**

A: The company website offers no clear information on how to navigate through recorded material. Most of the focus on the Zoom website addresses developing captioning in real time. The good news is that Zoom will automatically caption recorded meetings/classes.

Q: **If I am pre-recording the session, then how will it be captioned?**

A: Zoom automatically captions via specialized software-spoken text for recorded meeting/classes. It does this automatically with a slight delay which can range from a couple hours to a full day for a transcription to appear on the recorded video. However, with so many universities going online, this time period could be much longer. We recommend allowing two days for the transcription to be completed.

Q: **Can I trust the accuracy of Zoom's automatic captioning technology? If so, for the sake of managing my workload, is it OK to post/distribute a class session immediately after it has been recorded? Alternatively, do I need to review the captioned text for accuracy?**

A: Using Zoom's or Panopto's automatic captioning technology is very similar to an IPhone's SIRI feature, which transforms spoken language into written text. In all cases, the written products of each typically require manual edits to accurately capture the material.

Q: **Should I ensure that the Zoom or Panopto automatic captioning feature is accurate, even if I know the DHH students in my class have made it clear that ASL is their preferred method of communication?**

A: Yes. An accurately edited captioned recorded lecture will be helpful should students have trouble making sense of the ASL interpreter. This can happen when the visual image of the interpreter/s are too small for the

viewer to discern the more discrete ASL signs communicated. Students who use smart phones or small smart phones or pads may have this issue.

Q: **Where can I see the Zoom captioning after recording my class?**

A: After the recording is made and within typically a few hours (this could take up to two days), a transcript will show-up in a box indicating the speaker on the right-hand side of the screen. As the recording is played, captioning will appear to be highlighted in-sync with spoken dialog. A pencil icon will appear in the upper right-hand corner of box enclosing the captioned dialog of each speaker, allowing you to edit the transcript.

Q: **I am worried about editing the captioned Zoom dialog for accuracy. How complex and time consuming is it to edit these transcriptions?**

A: Zoom transcript text can be easily edited. Just move your cursor to the upper right-hand corner of the respective text box (each speaker has their own text box). The process appears significantly less challenging than doing the same thing in Panopto. However, one of our more senior graduate professors disclosed that some of her more complex subjects can require over three hours of editing for every hour of class.

Q: **How do I ensure that automatic captioning is working?**

A: Automatic captioning will only work if the meeting/lecture recording has been saved in the Zoom cloud (not on your computer) and the record option has been selected.

Q: **How can I use the recorded class session once it is complete?**

A: After the recording and automatically edited transcript is ready, you have the option to download and place it in Canvas, or to share the link directly with students.

Q: **Does it matter what technology I use to record lectures?**

A: Instructors can choose the program used to video (either live or recorded) their course sessions. If faculty are not comfortable with using Panopto, then Zoom is a viable alternative. Panopto's platform is offered on the Marymount website which provides a means to record, live stream, manage, and share videos.

- Panopto has a feature that converts speech into text. It is much like Zoom in this way.
- Edits to Panopto's automatic speech to text feature can be performed by anyone. We understand that Zoom appears to be a little bit easier to navigate in this regard. The instructor, a graduate student or even a student participant could be asked to edit the captioning content of any given class session.
- For reference please refer to: https://marymount.hosted.panopto.com/Panopto/Pages/Auth/Login.aspx?ReturnUrl=https%3A%2F%2Fmarymount.hosted.panopto.com%2FPanopto%2FPages%2FHome.aspxZOO

Interpreter Appearance On-Screen

Q: **How will interpreters be visually represented online in my live Zoom class?**

A: Zoom offers two ways to view a meeting/class. These are "Gallery View" and "Speaker View." In both views, Zoom is designed to emphasize one speaker at a time. The person who is speaking is always emphasized in the screen frame.

"Gallery View" displays the image of all meeting participants in a series of boxes organized horizontally and vertically like would be seen in the Brady Bunch or Hollywood Squares display. Whomever is speaking is emphasized by a yellow highlight appearing around their box. The display method may be too small for a DHH student to see if using a smaller laptop, smart pad, or phone sized screen. That is, the student may not be able to effectively read the interpreter's subtle sign language or facial expressions (which are often used to communicate emotion).

"Speaker View" displays meeting participants in a single horizontal strip of boxes along the top of the screen. It enlarges the image of whomever is talking to dominate the majority of screen space. When that person stops speaking then their image returns their original box placement in the

horizontal strip. The challenge is that an ASL interpreter communicates silently. As a result, the interpreter will not be emphasized on screen as a Zoom speaker typically would.

Q: What can be done if the student has trouble with viewing ASL interpreters because of an unstable internet connection where dialog can be heard but images tend to "freeze?"

A   Ideally, faculty, student and ASL interpreters would secure a reliable internet connection. This may mean physically moving to an area which has one. Should the internet connection not improve, a temporary fix might be to suggest that students use a separate device to connect with their ASL providers. This device would be viewed alongside the primary device upon which the class session would be viewed. Taking this route means that students will need to work directly with their ASL provider.

Third Party Involvement

Q: Does Zoom require a third-party to generate closed captioning when recording class sessions?

A: Zoom can automatically create a transcript of a recorded meeting/class session. NO third-party vendor is required to perform this work. Zoom can record to your desktop or the cloud. In order to have a transcript created, it is required to choose the **Record to Cloud** option. The record feature needs to be turned-on and the resulting Zoom transcript needs to be edited. Instructors have access to the transcript so they can directly edit it. The edited transcript needs to be shared with students either through the link or after downloading and depositing directly in Canvas.

Q: When does a third-party need to create a transcript?

A: A third party is needed to provide closed captioning in real time. This real time transcription produces a transcript as the class is happening. Marymount currently uses Access Interpreting as our third-party provider.

Q: **If I pre-record in Zoom, will the recorded class be available before my class begins?**

A: If you pre-recorded a Zoom lecture, then the session should be automatically captioned. While the conversion typically takes a few hours, a full day should be sufficient to make the conversion. Please allow time to review and edit the resulting transcript for accuracy. Again, you only need to work with third party to caption your meeting/class if that class is offered in a ***live format***.

Student Support

Q: **How does a student, who uses ASL services, complete an assignment that requires interaction with other classmates**

A: Faculty should complete the google form, found here: https://docs.google.com/forms/d/e/1FAIpQLSe-len1OfZtXv4msUVLBQ1URoyKM56m3rFg-Att23iY4AMwMw/viewform to request that SAS schedules ASL interpreters to work with the student and their group. SAS is happy to coordinate appropriate services.

For more information, please visit the **Keep Teaching** page on the Marymount website, and **Champions** of online learning are identified on the bottom. The page can be reached through the following. https://www.marymount.edu/Academics/Services-Resources/Center-for-Teaching-Learning/Keep-Teaching

If you plan to teach through Zoom synchronously, at the regularly scheduled days and times, the regularly scheduled ASL providers will join the class. Please be sure to provide the ZOOM link to them. **Please email the ZOOM classroom meeting link to John Obasun at vsk7000@aol.com for SUNEX interpreters. Please email the ZOOM classroom meeting link to Cheryl Ringel cherylsmobile@gmail,com, and Kate Lacey at klacey@gwu.edu for GW interpreters.**

CART provision for live synchronous classes is arranged through SAS. The classroom link for class meetings needs to be shared with requests@ainterpreting.com and access@marymount.edu.