HyFlex Instructor Guide

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What is "HyFlex" teaching?
There are several definitions and variations of this model of instruction, but the general approach for our current purpose entails simultaneously teaching to students who are attending the class in-person on campus and students who are attending synchronously via Zoom from a remote location.

The faculty member will conduct class at the designated days and times each week on campus. Some students may attend in-person, and others may attend remotely.

In a HyFlex class, it is important that that those in the room and those attending remotely be able to hear and see the instructor(s) and each other.

Considerations
When deciding what technology or set-up may be best suited for your class, you may want to begin by thinking about the level of interactivity you plan to have amongst students in that class session. If the class session will be highly interactive, then it is recommended that you ask all students (both remote and in-person) to log into the Zoom session. This enables all students to see and interact with one another more easily. If you plan to have a lower level of interactivity (for example, you plan to deliver a traditional lecture), then it may not be necessary for the in-person students to log into Zoom. In this case, you could use a large monitor to display the faces of the remote students to the in-person students.

If you do plan to have in-person students join the zoom session, we recommend the following set-up:
- Ask in-person students to remain muted (even when speaking). This will prevent feedback from the classroom audio and from audio of other student's computers.
    - The built-in classroom microphones and speakers will be used for audio.
- Ask the remote students to stay muted unless speaking.
- Additional considerations are recommended for small group work. See that section below for more details.

HyFlex Classrooms on Campus and Associated Technology
The classrooms listed below have been upgraded with technology to best facilitate a HyFlex class setting. Below is a matrix that outlines which classrooms are recommended and what technology is available in each classroom. Other classrooms may also be made suitable for HyFlex instruction using additional technology (found below the matrix) that is available for check-out from the multimedia lab.

Description of Classroom Technology

The celling microphones, when turned on, will pick up audio from anywhere in the classroom. By using the celling microphones, individuals in the classroom do not need any additional microphones to be heard by remote participants.

The display refers to either a drop-down screen or a TV monitor. The displays are used to project information from the instructor's computer to the front of the room for in-person students to view. Remote students will see the same content via the screenshare feature on Zoom.

Video refers to the cameras mounted in the classrooms. Most classrooms have a single camera mounted in the back of the room which faces the instructor podium and white board. Some classrooms have dual cameras which allow the instructor to toggle between the camera facing the front of the room and facing the class. This allows the faculty member to control what view of the classroom the remote students see.

The Elmo document camera can be used to project hard copies of documents or other resources to students in-person or remotely.

The Extron touch panel controls all of the classroom technology, including (but not limited to) powering on/off the computer system, turning the ceiling microphones on/off as well as controlling the volume of the audio in the classroom, controlling the classroom cameras and allowing for zoom and pan, and controlling projection of materials via the Elmo document camera or the display.

Classroom	Audio	Display	Video	Other Notes
123	Ceiling microphones	Has either a projector with drop-down screen or monitor to display content.	Single mounted camera facing front of room.	Has Extron touch control panel and Elmo document camera.
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323	Ceiling microphones	Has either a projector with drop-down screen or monitor to display content.	Dual mounted cameras facing front of room and classroom. Instructor can toggle between camera views.	Has Extron touch control panel and Elmo document camera.
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			toggle between camera views.	
331	Ceiling microphones	Has either a projector with drop-down screen or monitor to display content.	Single mounted camera facing front of room.	Has Extron touch control panel and Elmo document camera.

Other Technology:

The following technologies are available for check-out from the multimedia lab to supplement the HyFlex classes:

- Owl Cameras
- iPad with stylus
- Large monitors
- Headsets

Owl cameras are 360-degree cameras that are recommend for use in classrooms that do not already have the dual cameras installed (see table above). The Owl camera could be used as a replacement for camera mounted in the front of the room to display a video of the students in the classroom to the remote participants. We recommend using the Owl camera for video and not for audio. You should mute the Owl camera's audio when using the built-in classroom microphones and speakers.

When using the Owl camera, you can also reserve an iPad, which is used to control the Owl camera to zoom and pan the camera. iPad can also be used in a similar way as a Sympodium if you wish to create and display visuals during class such as by annotating a PowerPoint while lecturing or taking digital notes during class.

Large monitors can be used to project the gallery view of remote Zoom participants. This allows in-class participants to see the faces of the remote participants during the class session. This is primarily recommended if the in-class students are not logged into Zoom during the class session.

Headsets are recommended if you intend to do small group work in your class that consists of a mix of in-person and remote students. In this case, you would instruct the in-person students to wear headsets to reduce background noise from other groups.

Preparing for your first HyFlex Class

- Ensure your course syllabus is built in Canvas or otherwise available along with any other asynchronous materials you plan to use during the semester and that your home page has the correct semester dates noted in the template.
    - consider having all materials [or assignments] built in Canvas or otherwise available so students can plan ahead. Ask your instructional designer for assistance with this if needed.
    - Other materials such as lecture notes or documents used in live sessions can be added to Canvas as you go.
    - Consider Including some technology guidance in your syllabus for remote students. See the Sample Hyflex Student Guide in the appendix below, which gives some general expectations and technical advice.
- In advance of your first class, visit the classroom you will be using and familiarize yourself with the technology. Make sure you're able to login to the computer, open Zoom, control the cameras, use the projectors, turn the ceiling mics on and off, etc. A member of the Academic Technology Services Department can join you for a technology test or practice-run of the technology if you provide at least 3 days advanced notice. Please email ITHelp@mitchellhamline.edu to request this help.
- Ensure that you've created your class sessions via Zoom Pro from within your Canvas course. Make sure you've set the recordings to record automatically to the cloud. Contact your ID or assigned ATS team member for assistance moving the recordings to your Canvas course for students to access.
    - Before your first class session, it may be helpful to contact your students to ensure they understand how the class will run. Providing information such as the day and time of class, the physical classroom number for those attending live and the Zoom link for those attending remotely, a class agenda (which may include any asynchronous activities you expect students to complete on Canvas prior to class), what materials students are expected to bring to class (example: their computer and a headset) and some expectations (see sample expectations in the appendix below) will be helpful to avoid confusion for students.
        - Reminder: If your Zoom meeting has a passcode, don't forget to communicate that to students as well.
    - If you plan to do small group work with students and you plan to create groups that are a mix of in-person and remote students, you should communicate to in-person students that they are expected to bring a headset and laptop to the class session.

Starting Your Class

Before class starts:
- Arrive to the classroom about 10 minutes prior to the start of class

- If you will be using a large monitor to project the videos of remote students, please notify ITHelp@mitchellhamline.edu the day before your class to ensure that the large monitor is located in the classroom and plugged into the computer system
- Log into the desktop computer
- Power up the projector
- Log into Zoom and begin the Zoom session for the remote students
- Make sure the ceiling mics are turned on
- Load up any PowerPoints, documents, or other materials you will share with students

At the beginning of class:
- Remind remote students to mute, and to have camera turned on.
- If live students are expected to log into Zoom as well, remind them to stay muted AND to turn their computer audio off (even when speaking) to avoid feedback. The ceiling microphones will capture the audio within the classroom.
- Reiterate expectations for how live and remote students should ask questions or communicate with you.
- You may also wish to take attendance at the beginning of class.
    - Tip: If remote and live students are on Zoom, it might be worth asking live students to temporarily turn off their camera so that the remote students show up first on the Zoom screen. This might make attendance taking more efficient.

During Class
Contact ITHelp@mitchellhamline.edu for any technical assistance during class. Please briefly note the issue and the classroom you are in. Someone will arrive shortly to assist.

- Sharing your Screen: Zoom article: Sharing your screen, content, or second camera
- Using the Document Camera
    - To use the document camera, click on the Share Screen button located in your meeting controls, then click on Advanced. One of the options in the Advanced share settings is a secondary camera. The document camera will be recognized as a secondary camera.
    - When you are sharing content via the document camera, the screenshare will display the capture from the document camera only. It is not possible to share two sources (such as shared PowerPoint screen and document camera) simultaneously.
- Controlling the Cameras
    - The mounted cameras can be controlled via the Extron touch panel to allow you to zoom or pan the cameras. Contact ITHelp@mitchellhamline.edu if you need assistance with the cameras, the touch panel, or any other elements of the classroom technology.
- Conducting group work using Zoom breakout rooms with a mix of remote and in-person students

- Turn **OFF** the ceiling microphone when launching breakout rooms in a HyFlex classroom. Students will use the microphones and speakers on their own devices to hear and speak to their group members. Keeping the ceiling microphones on during breakout rooms will result in audio feedback.
- On the instructor's computer at the front of the room, change the audio input for both the microphone and speaker to "same as system".
  - If the instructor intends to join any of the breakout rooms, he/she should use a headset. Without a headset, the audio coming from the classroom speakers will be distracting to other students in the room.
- Instruct students to use their headsets and computer audio to communicate with their group members on Zoom.
- Turn the ceiling microphones back **ON** when closing breakout rooms to bring everyone back together. In-person students should resume muting their microphones and turning off their computer audio. At the same time, change the audio input for the microphone and speaker on the instructor's computer back to the echo-canceling classroom audio.

After Class
- Logging Out: When your class is over, log out of the computer and tap "shut down" on the control panel. Make sure that the projectors are turned off.
- Managing your Class Recording:
  - If you recorded your class session in Zoom, the cloud recording of the session will be saved to your "Zoom Meetings" folder in your Panopto account. Your students do not have access to your personal Zoom Meetings folder, and you will need to move your recording to your course Panopto folder in order for your students to access them.
  - [Video: Managing Zoom Videos in Panopto](#)

Tips
- If in class students are also on Zoom, you may consider appointing one student to monitor the chat or raised hands and notify you if a remote student has a question.
- Sending a class agenda via announcement to students each week (not just before the first class) or including the agenda in the module each week will be useful for students so that they can appropriately prepare for class and ensure they understand expectations. See a Sample Agenda in the appendix below
- Consider having lighter content delivery during your very first HyFlex class so that you and students can get acclimated to the technology and the HyFlex environment.
- If students on Zoom don't actively participate, it may be easy to forget they are there. Be sure to keep an eye on the Zoom panel for raised hands and/or if you cold call, remember to include the remote students as well.
- When writing on the board, use black or red markers whenever possible, as these colors provide the best contrast against the white board and each other. Avoid using green

markers because it is difficult for remote participants to see from the camera feed. Write using large lettering so remote participants can easily read the writing on the board. You could also consider zooming the camera in to the board to allow remote participants to more easily read the text. Alternatively, consider writing on an iPad rather than the Board so images are projected to screens or monitors.

- If you have a deliverable due during the synchronous portion of class, consider having all students submit on Canvas to keep submissions (regardless of whether the student is in-person or remote) curated in one convenient space for you.
- For consistency and fairness, consider having the final exam administered the same way regardless of if the student is remote or in-person. This may mean all students can take the final exam remotely and asynchronously on Canvas during the exam window.

Appendix

Sample Hyflex Student Guide

Note: These are some general expectations or tech advice you could include in your syllabus. You may want to include more specific expectations on a weekly basis.

Introduction to HyFlex

What is "HyFlex"? In a HyFlex model of instruction, students can decide for each class whether to attend remotely via Zoom or in-person (assuming classroom capacity requirements are adhered to). Classroom lectures are streamed synchronously over Zoom using in-class camera technology. Remote learners can communicate synchronously with classroom learners using Zoom.

Preparing for HyFlex Learning

If you are participating in a HyFlex course, your professor will provide you with policies for both remote and in-person attendance and participation. This document will simply provide you with some best practices for using the technology involved in HyFlex learning.

Best Practices for Remote Students

- If you are a remote student joining a live session via Zoom, be sure to keep your microphone muted when you are not speaking. You can also mute/unmute yourself by clicking the space bar on your keyboard.
- Your camera should be on during class unless you have spoken with your faculty member and come to an alternate agreement. Try to reduce visual distractions in the background and aim to have good lighting. Note that you can use Zoom's virtual background to block out the room behind you.
- If possible, log into the Zoom session from a laptop or desktop computer instead of using a tablet or smartphone device. This makes participating in activities such as Zoom chat a lot easier.
- Note that in Zoom you can do side-by-side view to see the speaker and the content being shared at the same time. You can also pin a video if you want to keep it in your main view.
- Be patient with the fact that the instructor may not be able to see your hand raised or your question in chat. It can be difficult to monitor everything during a live lesson. Your instructor will inform you of the best way to ask a question, but if you have a question that does not get answered, follow up with the instructor after class.

Best Practices for In-Class Students

- If your instructor asks you to bring a device to class, note that you should make sure it is fully charged, and that you should bring headphones as well.
- If using a device in class to join Zoom, mute your mic and turn off your computer audio.
- The classroom microphones are typically good at picking up audio from anywhere in the room but be mindful of speaking up for those students joining via Zoom.

Other considerations faculty may wish to include in the student expectations:

- Are in-person students expected to join the Zoom session each class session and/or will they be participating in small group work regularly? If so, you should set an expectation that students bring a computer and headset to class each week.
- Like with remote but synchronous class sessions, you may want to set expectations around how students should use the chat feature (especially if live students are not logged into Zoom) as well as the best way for remote students to ask you questions (chat? Raise hand? Unmute?).

Sample Class Agenda
(The purpose is to communicate when/where class is, what will happen during class time, what is due outside of class time and what students should do to prepare. You could share a class agenda with students via an announcement before class, or you could provide the agenda for each week in the modules).

Class will meet on (insert date/time) (Central Standard Time) in (insert room location)

Students attending virtually will join using Zoom. The link to join can be found via the "Zoom Pro" tab in the Canvas course. (You may also directly paste the Zoom link in the agenda if you wish)

Remote users should log into Zoom 3-5 minutes before the start of class and ensure microphones are muted and cameras are on. In class students should be sure to bring a computer and headset to class with them (if applicable).

Class Objectives/Topic
- Insert topics and/or learning objectives.

Work to Complete *(samples)*
- Complete this week's required readings and videos on Canvas before coming to class.
- Participate in this week's discussion board before the live class.
- Submitting the assignment by Saturday at 11:59PM