This document provides an overview of how classroom technology supports the LfA model adopted for delivering courses to students. Zoom will be the videoconferencing tool used to deliver content synchronously to remote students and bridge in-class students with remote students both during lectures/discussions and team breakouts to maximize engagement. Upfront we state that there is no perfect solution – Questrom ITS staff have tested various technologies and options and their impact on videoconferencing, sharing content, audio, compatibility with our room system, etc. so what follows is the best configuration for the fall.

Each classroom is equipped with:

1) A podium computer with Touch-screen
2) Vaddio Camera mounted on ceiling
3) Ceiling Microphones
4) LCD Screen with Webcam (Moderator facilitated) – Preferred Placement: Side Angle
5) Document Camera

Our LFA classrooms are designed to integrate the in-person and remote student experiences. While in the classroom, the Faculty leads the class from the front of the room. They begin the session by logging into Zoom using the Podium computer. Utilizing the classroom microphone, remote students will hear what people in the classroom are saying. In-person students will hear remote students through the classroom speakers.

The Faculty member will project their course content on the Projector Screen in the room and share their screen via Zoom for the remote students. Document Cameras have also been installed as a replacement for the traditional whiteboard/blackboard.

Every classroom has been outfitted with an additional LCD Mobile Cart with a Laptop and Webcam. This LCD Mobile Cart is managed by the Moderator/TA and can be set up by the Faculty member, if neither is available. In-class students can see a life-sized video of remote students as they speak, on the LCD Mobile Cart connected to Zoom. Remote students will have access to look into the classroom and see the in-class students via the Webcam mounted on the LCD Mobile Cart.

Important Notes:

- In order to utilize the room system, all faculty must join into the Zoom meeting using the Podium computer. All computers are installed with Zoom.
- When speaking, please refrain from walking while speaking. The ceiling microphones will pick up your audio much clearer if you stay in one location while speaking.
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Starting the Zoom from the Podium Computer

In order to pull in your Host access, it is important that you start your Zoom meeting on the Podium Computer following these instructions.

To start Zoom from the podium computer, please follow these instructions:

1) Navigate to Questrom.zoom.us
2) Click into ‘Meetings’ tab.
3) Locate your class meeting.
4) Click Start.

Selecting Microphone, Speakers, and Camera for Zoom

Names of Equipment to Select for Zoom

After joining into the Zoom meeting, please check that the Microphone, Speaker, and Camera are correctly selected. Below, you will find the name of the equipment you should be using in the Questrom Classroom.

**Microphone**
- Microphone (AV Bridge)

**Speakers**
- Speakers (Realtek) or Crestron

**Camera**
- AV Bridge or UVC Camera
Testing your Speaker and Microphone

To ensure that all of the equipment is functioning, we recommend that you test your speaker and microphone by clicking on the ‘^’ next to the microphone icon, then selecting “Test Speaker and Microphone”. Follow the prompts on the screen to complete the testing.

Connecting a Laptop Computer

You will not be able to use your own personal microphones. Please see Personal Microphones section for more info.

1) Join into Zoom session using the Podium Computer
2) Project the Podium computer to the projector and set Zoom into Full-Screen view.
3) Join into Zoom session using Laptop computer. DO NOT CONNECT AUDIO OR VIDEO for Laptop.
4) Share Screen from your Laptop.
Additional Devices for Whiteboard and Annotating

Basic Options:

Document Camera

Our most basic option is the Document Camera. The Document Camera will be the replacement for the blackboard in the room.

Document Cameras are stationed and plugged in at every podium computer. To use the document camera:

1) In Zoom, click Share
2) Click Advanced → Click “Share Content from 2nd Camera”

Touch-Screen Podium Computers

All Questrom classrooms have touch-screen podiums. This will allow for you to create a whiteboard or annotate over your slides directly from the podium computer. To do so, simply initiate a Shared Screen and annotate away!

Advanced Options:

If you would like to use other more advanced devices, here are instructions on how to use them with our room system:

Using a Wacom Tablet

If you plan on using a Wacom Tablet, you will need to also bring in your laptop computer. To use a laptop computer in the classroom, please see section for Connecting a Laptop Computer.

Wacom Tablet usage is the same as if you were using it from home. Please make sure that the device is properly connected to your laptop to use the Wacom Tablet.
Using an iPad

iPad connections will be different than you are used to from home. To use an iPad in the room, connect by following these steps:

1) Join into the Zoom Session using your iPad as a separate participant. **DO NOT CONNECT AUDIO OR VIDEO for iPad. You can toggle this when joining into the Zoom Session.**

2) To start a whiteboard, click on Share Screen → Whiteboard.

3) To annotate over slide deck, click on the Pencil icon on the bottom left corner.
Zoom Breakout Rooms

Breakout Rooms can be handled as follows:

**NOTE: If you are using pre-assigned breakout rooms, please use Option 2.**

1) Our recommended best practice is in-person students should NOT join into Zoom while in class, until Breakout rooms are about to begin. Once breakout rooms start:
   a. Faculty **must** wear a headset that can be connected to the podium computer to interact with participants in the breakout rooms
   b. In-person students **must** also wear a headset in the classroom while in breakout rooms.

2) If you want to have students connect to Zoom at the start of class before breakout rooms begin, ensure that:
   a. In-person students who connect to Zoom using their laptops **must mute their microphone and their speakers.** If students do not do this, it will cause feedback with the room system.
   b. When breakout rooms are initiated, please ensure that the faculty and all students are using a headset.

Everyone in the room must have a headset on in order to avoid any feedback that will be caused if either the student or faculty member is not using a headset.

Faculty who have not received a headset from teaching in Spring 2020 can request one from Questrom ITS by emailing questromhelp@bu.edu.
Playing Videos in Class

Please play all videos using the podium computer.

If it is unavoidable (i.e. video embedded in Keynote Presentation, Mac-only video format, etc.) and you have to use the laptop to play a video, these instructions will walk you through how to play a video using the laptop while making it available to both in-person and remote students.

Before following these instructions, please be sure to have connected the Podium and Laptop computers to Zoom. See Connecting a Laptop Computer for instructions on how to connect your laptop to Zoom while in our Questrom classrooms.

Using your laptop computer:

1) On Zoom, click ‘Share Screen’
2) On the bottom left corner, check off ‘Share Computer Sound’ and ‘Optimize Screen Sharing for Video Clip’.
3) Find and click the video you want to share, click ‘Share’
4) Connect the AUX cable (by the podium side table) into the headphone jack of your laptop. Please see image below for AUX cable.

5) Play the video!

Personal Microphones (USB or Bluetooth)

Personal microphones cannot be used during Zoom sessions in Questrom Classrooms. Our ceiling microphones are designed to pick up audio from the entire room, including students. If you were to use a Personal Microphone, the audio from the students in the room will not be picked up as clearly as it would be from our ceiling microphones.
Zoom Recordings

**Zoom recordings are now to be recorded to the Cloud.** Please do not record to the Local Computer. In order for you to have access to your recording from home, you must record to the Cloud. All of your Zoom cloud recordings will be located in the Zoom Portal under Recordings. After the Zoom recording is available, please download and upload the recording to Media Gallery in your QuestromTools course site for your students to access.

New documentation on How to set up and initiate a Cloud Recording and Uploading Zoom Cloud Recordings to Media Gallery have been posted to both the Questrom Faculty and Covid19 websites under Zoom Guides.

Echo360 Recordings

Echo360 will be used to record in-class sessions to act as a backup, in case the Zoom recording fails. Unlike previous semesters, Echo360 recordings will not be automatically posted QuestromTools.

If you have any questions or concerns, please email questromhelp@bu.edu.

If you need to request the Echo360 recording backup, please email questromhelp@bu.edu.

Classroom Management – Moderators & TA’s

**LfA Classroom Moderators**

- The LfA Classroom Moderator is intended to be a facilitator of remote student engagement via Zoom, assisting the faculty member to handle the simultaneous and remote modality. They are also expected to provide first-line support for classroom technology.
- Moderators are assigned for classes larger than 20 enrolled students and do not have an assigned TA.
- Moderators will be hired and allocated by BU Central Campus Administration and will not necessarily be familiar with your course material.
- Moderators are moderators, they are not TA’S nor may they do more activities than what are described by University Guidelines for Moderators. They will not be doing TA tasks like taking attendance.

**TA’s**

- Assigned TA’s will fill the Moderator’s role as well as TA, TA’s will be trained in Moderator duties.
- Coordinated courses with assigned TA’s at the course level (e.g. CORE) but no TA’s for discussion sections are eligible for discussion section moderators.
Turning on LCD Screen with Webcam and Connecting to Zoom

If a moderator is absent/unavailable, please follow these instructions to join into the Zoom Meeting using the LCD Screen with Webcam.

1) Using the Wireless Keyboard and Mouse, log in to the laptop computer.
   - Login: qstcloud
   - Password: 595LapTops
2) Launch Zoom from the Task bar
3) Click ‘Join a Meeting’ and Type in Meeting ID, Check off ‘Do Not Connect to Audio’, Click ‘Join’.
4) Type in Meeting Password and click ‘Join Meeting’.
5) Full-screen the Zoom application.

Questrom ITS will also have on-campus presence for any other escalated issues.