REMOTE TEACHING AND LEARNING TECH GUIDE

About

This guide will be an overview of common audio fixes for web conferencing and music. It will be a short overview of how to get the best sound possible with the different platforms available. Included is a short gear list and overview of a music collaboration app at the end.
Audio Quality Improvement Tips

Mac OSX - Using Built in Microphone/USB Microphones/Headsets

Disable “Use Ambient Noise Reduction” on computer

- Go to System Preferences>Sound>Input
- With “Built-in Microphone” selected, adjust the slider so that the input level isn’t distorting
- Deselect the box marked “Use ambient noise reduction”
- Test out proximity to the microphone if playing an instrument and adjust the input slider as necessary

Cisco Webex

Disable “Automatically adjust settings”

- From your Webex window, click on the (...) at the bottom of the screen
- Select “Speaker, Microphone and Camera”
- Deselect “Automatically adjust volume” - You can now change the microphone input settings accordingly for the purposes of the meeting (Conference, lessons, ect.)

Facetime

- If you are playing an instrument over facetime make sure to set your phone at an appropriate distance from the instrument
- Do a few tests with whomever you are facetimeing with to get the best results for where to stand in the room
- Use Headphones to monitor yourself and make sure your computer volume is muted
**Zoom**

- Mobile devices seem to do okay with voices (a cappella, spoken word) but adding an instrument doesn't go well. Computers with the full application (not the mobile app) work way better!

- Be close (or wired) to your router, and on a desktop / laptop do the following: In the application go to your Settings --> Audio --> and click "advanced". CLICK "Show in-meeting option to "Enable Original Sound" from microphone". DISABLE "Suppress Persistent Background Noise" and "Suppress Intermittent Background Noise".

**NOTE FOR ZOOM**
Zoom is CONFERENCE software geared to the human voice. Without changing these settings it will try to suppress anything it doesn't recognize as a vocal. Like your guitar! (and mobile apps won't let you turn that off!)

**General Tips**

1. Make sure that you have a good internet connection. If you have the option to plug straight in via ethernet from your internet router then do so!
2. Close out any unnecessary Applications on your computer or phone
3. GIVE YOURSELF PLENTY OF TIME TO RUN TESTS

**Sharing Audio In WebEx**

*How to stream audio from Itunes and other music playback applications through WebEx Meetings*
Step 1.
When in the meeting click the share content button

Step 2.
In the top left corner change “Optimize for Text and Images to “Optimize for Motion and Video
Step 3.

After clicking Optimize for motion and Video, WebEx will prompt you to install an audio driver. CLICK YES.

If you're using a Mac, depending on your security preferences, you may get a warning dialog at this point that says you can't install or open the audio driver because it is unverified by Apple.
You can bypass this by going to System Preferences > Security and Privacy. At the bottom of the Security and Privacy dialog box there will be an option to “Allow apps downloaded from…”, click “App store and identified developers”. At that point you should see the most recent app/driver download that was denied. Click “Open Anyway” to retry installation.

Once you have installed the audio driver, you may need to restart your computer to have audio function properly in Webex.
Step 4.
Click “Share Computer Audio”

You are now ready to play songs from Itunes, share score audio, YouTube videos, and more while in meeting
Setting up Webex Events

1) Go to umbc.webex.com and login with your myUMBC credentials
2) Click on “webex events” in the lower left hand corner

3) Click “schedule event”
4) Type name, date, time, and duration of call. Change “program” to “Dept. of Music” in the drop down menu. Check “attendees can join _ minutes before the scheduled start time” and set it to the desired time. At least 10 minutes is recommended so participants can do a sound check before the event begins.
5) Create your panelist list by clicking on “create invitation list”. Note: “panelists/presenters” would be all the people performing or presenting in your event and will be able to share files, audio, video, etc.

6) Enter in the presenter information (only the name and email is required) and then click “add to invitation list”
NOTE: Make sure anyone who will be presenting or performing is listed as a panelist and not an attendee. This will enable them to have presenter privileges such as sharing which will make it so they can share music and have video on the call if they are performing.

7) The invitation info will then be added. Repeat this for each panelist.

8) Click “schedule” event and your event will then be scheduled.

9) You will be asked to send an email invitation out. Check “host” and “panelist” and then click “send now” so your panelists will be invited.
10) On the day of your event, log back in and click “site events”

11) Click “start” to begin your event. If you click on the name of your event, it will show you how panelists and attendees can access your event via URL. Send the attendee URL to anyone who will just be listening to the event but not participating, which will automatically mute the attendee’s audio and video when they enter the event unless the host unmutes them. Send the “panelists” url to anyone who will be performing. Accessing this url will display the user’s audio and video.
12) To allow other panelists to use audio playback, the host of the event will need to view the panelist list in the call, right click on the user’s name, and change their role to host so they can screen share and play audio through the event. Only one panelist can be the host at a time, the user will need to change who the host for the next person to do audio playback.

Make sure to do tests with the host and panelists before the event to make sure your concert or collaborative session goes on without a hitch!
# Gear List (USB Microphones and Iphone Mics)

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
<th>Purchase</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Technica AT2020USB + Cardioid Condenser Microphone</td>
<td>$149.00</td>
<td>Amazon, B&amp;H Photo</td>
<td>It is a plug and play microphone for your computer. Others in the department have used it</td>
</tr>
<tr>
<td>Microphone Model</td>
<td>Price</td>
<td>Purchase Options</td>
<td>Benefits</td>
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<tr>
<td>Blue Snowball USB Condenser Microphone with Accessory Pack (Brushed Aluminum)</td>
<td>$69.99</td>
<td>Amazon, B&amp;H Photo</td>
<td>It is a plug and play microphone for your computer</td>
</tr>
<tr>
<td>Blue Snowball iCE USB Condenser Microphone with Accessory Pack (Black)</td>
<td>$49.99</td>
<td>Amazon, B&amp;H</td>
<td>This is the cheapest option on the list and is the step down from the one above. No one from the department has used this to my knowledge.</td>
</tr>
<tr>
<td>Product Name</td>
<td>Price</td>
<td>Description</td>
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<tr>
<td>Blue Yeti USB Microphone</td>
<td>$129.00</td>
<td>Purchase at B&amp;H and Amazon. It offers 4 different polar patterns, monitoring capabilities through the microphone, and an instant mute button.</td>
<td></td>
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<tr>
<td>Movo Sevenoak Conference USB Microphone for Computer Desktop and Laptop with 180° / 20' Long Pick up Range Compatible with Windows and Mac for Dictation, Recording, YouTube, Conference Call, Skype</td>
<td>$58.95</td>
<td>20 ft. pickup range. Headphone monitoring jack. Plug and play. Haven’t used but the reviews and price seems great. Amazon has a good return policy as well.</td>
<td></td>
</tr>
<tr>
<td>MXL AC-404 Portable USB Conferencing Microphone (Black)</td>
<td>Price: $65.00</td>
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<tr>
<td>Mostly Used for web conferencing. Easily placed on any table. You will have to adjust the input volume via the computer unlike other microphones on the list. Faculty have used before for conferencing. It may take some time to set it up to sound good for Music.</td>
<td></td>
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<tr>
<td>Shure MV88 Digital Stereo Condenser Microphone for iOS</td>
<td>Price: $149</td>
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<td>Recommended from a representative at Sweetwater. Works with Facetime and any Iphone Recording software.</td>
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<tr>
<td>Product</td>
<td>Price</td>
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<tr>
<td>IK Multimedia iRig Mic Cast 2 iOS Microphone</td>
<td><strong>Price: $39.99</strong> <a href="https://www.sweetwater.com/store/detail/iRigMicCast2--ik-multimedia-irig-mic-cast-2-ios-microphone">Link</a></td>
<td>I can’t give a recommendation on this due to never using it but the Youtube videos and reviews were pretty good for the price.</td>
<td></td>
</tr>
<tr>
<td>Mpow 071 USB Headset/ 3.5mm Computer Headset with Microphone Noise Cancelling, Lightweight PC Headset Wired Headphones, Business Headset for Skype, Webinar, Cell Phone, Call Center</td>
<td><strong>Price: $29.99</strong> <a href="https://www.amazon.com/gp/product/B06XWG12QS/ref=ask_ql_qh_dp_hza">Link</a></td>
<td>NOTE: I HAVE NOT TESTED. THIS IS JUST A SUGGESTION FOR ANYONE DOING LECTURES AND WHO WANTS A LITTLE BETTER QUALITY. USB and Headphone Jack connection (1/8th) So it works with phones and computers Average 4 star rating I’ve never used but it is on the higher rated and cheaper side Easily returnable if not satisfied Works with phone and computer mac/pc</td>
<td></td>
</tr>
</tbody>
</table>
| **Yamaha CM500 Closed-back Broadcast Headset with Boom Mic** | **Price:** $59.99  
The better option between the two headsets listed.  
Still on the cheaper side of headsets and has great reviews on sweetwater.  
Used for broadcasting/coaching/lectures.  
Purchase at sweetwater.com  
Great return policy |
|---|---|
| **PHONE TRIPOD**  
UBeesize Phone Tripod, 51" Adjustable Travel Video Tripod Stand with Cell Phone Mount Holder & Smartphone Bluetooth Remote, Compatible with iPhone/Android (Black) | **Price:** $29.99  
Has a phone mount and regular mount so it is versatile  
You can change the angles and it is a good height.  
Cons: It may be too big for a desk |

**NOTE:** If you are using a mobile phone for teaching, there are many accessories you can buy such as tripods and other stands that you may have been unaware of. Take a look at Amazon, B&H Photo, and Sweetwater for other microphone options and computer/phone accessories for teaching, conferencing, and mobile streaming.
Apps for remote collaboration

Bandlab - Apple Store/Googleplaystore

“Bandlab is a collaborative music making app that lets you connect and collaborate on projects with others. Tempo can be set, notes can be written, key's chosen and then sent to someone else to continue working on it.

You just need a google account or facebook to sign up.

Get in contact with who you are collaborating with by leaving messages in the app and sending them your recordings, mixes, and audio files. Everything is saved online and you can even use a desktop or laptop to continue your projects.

https://www.bandlab.com
**STEP 1.**

Open the App and Click the Center Plus Button

**Step 2.**

Click the Voice/Mic in the center. This will take you to the recording screen where you can set up a project
Step 3.

You will now be at the recording screen. This is where you will record your tracks.

NOTE: If you click the pencil tool in the top center it will let you add notes for collaborators and for yourself.
Step 4.

Set up your session. Click the gear Icon. Here you can set up your session with BPM's/Key Signatures/etc.

Set up a “Count in” for your click track. This will give you up to two bars of the click before the recording starts. This will make it easier for collaborators to record tracks on your project.
Step 6.

You're ready to record. Record your part/add notes. When you are finished press the record button a second time and click the button in the top left corner. This will enable you to name and save your project.
Step 7.

You are ready to invite friends and collaborators to work on the project.

Invite all your collaborators by username on the app or by email. Once someone records a new track on your project you will be notified. I believe you also have the option to use and look at projects online via the website.

This is just a basic overview of how to create a project and add collaborators. You can add recorded files/midi/samples to the projects as well. Everything is stored via the website's cloud and you can make projects private or public.