# **Online Lessons With Zoom**

## **Mac System Requirements:**

### Versions - Mac OS X - 10.10 Or Higher.

Dual-core 2Ghz or higher (Intel i3/i5/i7 or AMD equivalent) Ram - At Least 4 GB.

## **Bandwidth Requirements:**

For 1:1 video calling:

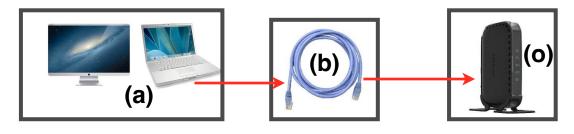
For high-quality video: 600kbps (up/down)

For 720p HD video: 1.2Mbps (up/down)

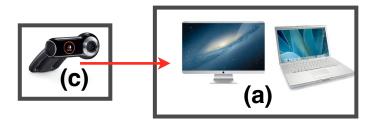
For 1080p HD video: 3.8Mbps/3.0Mbps (up/down)

### **Recommended Online Gear Setup**

1) A hardline connection from your computer-(a) to your high-speed internet modem-(o) using a ethernet cable-(b).

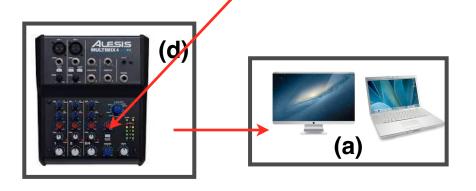


2) A usb connection from an external webcam-(c) to your computer-(a).



3) A audio connection from your mixer-(d) to your computer-(a) using the usb cable that comes with the mixer.

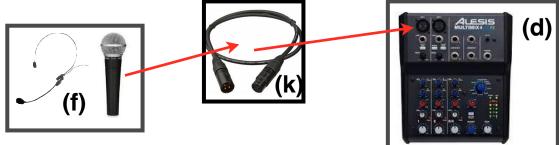
(Make sure the (EXT/USB To Main) button on the mixer is pushed in.)



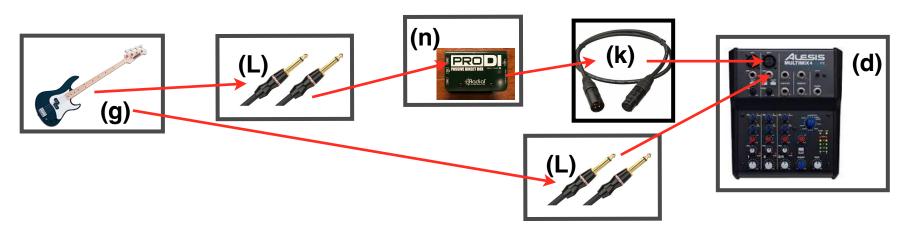
4) (<u>Optional</u>) - A connection from your computer-(a) to an External monitor-(e) with either a DVI, VGA, or a HDMI connection-(o).



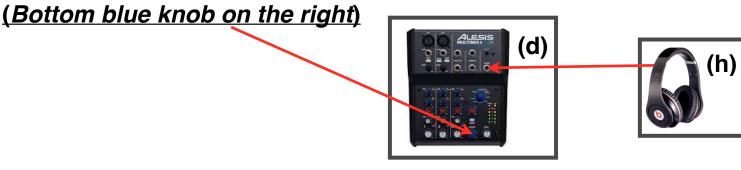
5) Your voice microphone-(f) with a XLR connection-(k) plugged it into channel 1 of the mixer-(d) should be the only live mic you should use during the lessons. This will allow you to balance your voice volume with the other audio for you and the teacher. I recommend a regular vocal microphone on a stand.



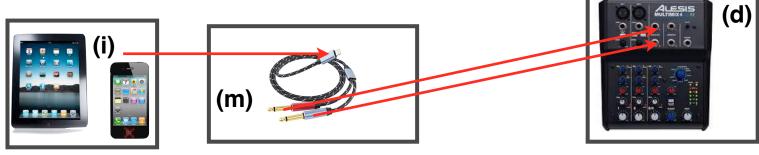
6) You should plug your bass-(g) into the input of channel 2 on your mixer with a standard 1/4 inch instrument cable-(L) or an XLR cable-(k) if you are using a direct box-(n).



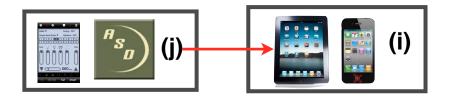
7) Your headphones-(h) should be used to listen to all of the audio during the lesson. Plug your headphones into the (1/4 inch) headphone jack on your mixer and adjust your headphone volume from the headphone volume control on your mixer-(d).



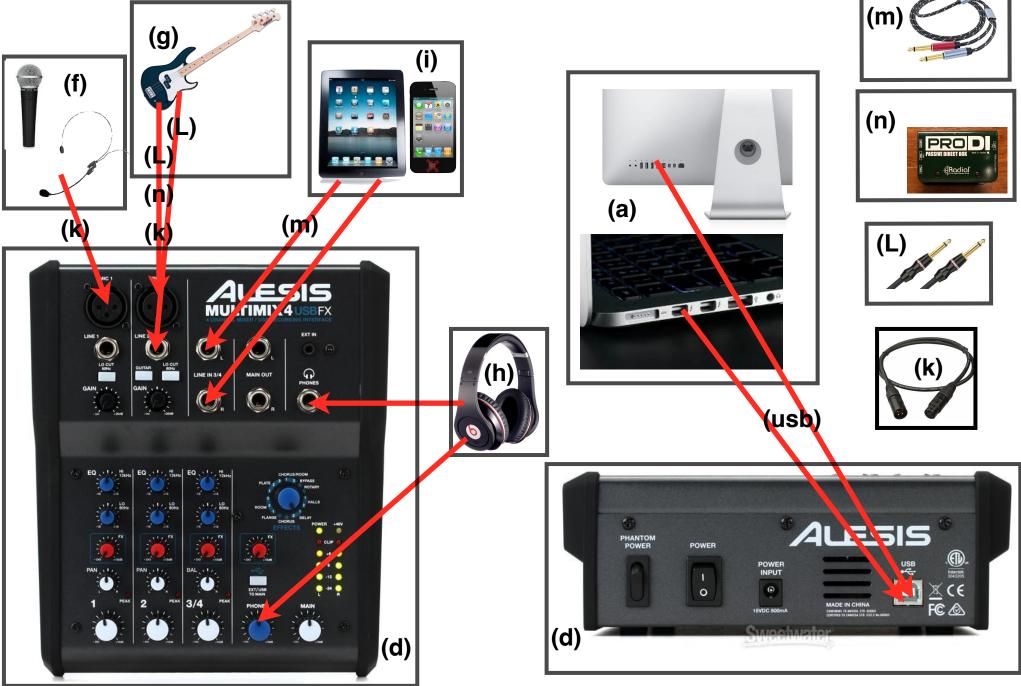
8) You should connect from your audio playback device-(i) using what ever audio connection is needed from your phone or tablet split to 2 mono 1/4" cables-(m) into the line in 3/4 L/R input channels of your mixer-(d).



9) I recommend using a separate audio playback device-(i) that can run apps such as the *Amazing Slow Downer-(j)* - http://www.ronimusic.com and the Dr. *Betotte metronome app* - <u>https://itunes.apple.com/us/app/dr.betotte-tc/id290528338?mt=8</u>-(j)



## Mac Audio Hook Diagram For Zoom Mixer View



## Mac Audio Hook Up Diagram For Zoom Computer View

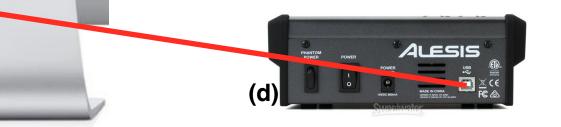


USB Port (a)

#### USB Connection From The Mixer-(d) To The USB Port Of The Computer-(a)



USB Connection From The Mixer-(d) To The USB Port Of The Computer-(a)



### **Recommended For A Better Lesson Experience**

- 1) Your External webcam-(c) should be mounted away and up on a stand pointing at a downward angle towards you. The camera in your computer will work, but has a limited field of view.
- 2) Using an external monitor-(e) although optional will allow you to view pdf files and other materials while also being able view the instructor. You will need to make sure you have the necessary adapter to connect from your computer, usually it will be a HDMI connector.
- 3) For the fastest internet possible, it is best to use a hard line connection using a ethernet cable from your modem to your computer. (*Wifi Usually Does Not Work As Well*).
- 4) Use a USB Hub if your computer does not have enough or the right kind connection ports.
- 5) Store lesson videos and curriculum on a separate hard drive to save space in your computer which will help it run better.

### This Is What Your Output Audio Settings Should Look Like In Your Computer System Preferences

	Sound	
earch	Sound Effects	
Rodgers Russell	Alert sound	Boop 💲 🕞
Family	Play sound effects through	Selected Sound Output Device 💲
Wi-Fi	Alert volume	I I
Bluetooth	Play sound on startup	•
Network	Play user interface sound effects	
Notifications	Play feedback when volume is changed	
Sound		
Focus	Output & Input	
Screen Time	Output	Input
General	Name	Туре
Appearance	External Headphones	Headphone port
Accessibility	MacBook Pro Speakers	Built-in
Control Center	Sceptre F24	HDMI
Siri & Spotlight	Studio 68c	USB
Privacy & Security	Applications may be able to access head spatialized audio.	pose information when playing
Desktop & Dock		
Displays	Output volume	
Wallpaper		Mute

0

### This Is What Your Audio Settings Should Look Like In Your Zoom Settings

•		Settings	
0	General	Speaker Test Speaker Studio 68c *	
	Video	Output Level:	
0	Audio	Output Volume: 🖪 🔵 🛋	
•	Share Screen	Use separate audio device to play ringtone simultaneously	
2	Team Chat	Microphone	
6	Zoom Apps	Test Mic Studio 68c ·	
	Background & Effects	Input Level:	
0	Recording	Input Volume:	
8	Profile	Automatically adjust microphone volume Audio Profile	
	Statistics	<b>Zoom optimized audio</b> (recommended for most users) ⑦	
U	Feedback	Original sound for musicians (recommended for studio environments)	
	Keyboard Shortcuts	Displays in-meeting toggle to switch between Zoom optimized audio and Original sound for musicians	
i	Accessibility	High-fidelity music mode ⑦	
		Secho cancellation (?)	
		Stereo audio 🕜	

# **Recommended Audio Gear For Lessons**

### Alesis Multimix 4 USB FX Mixer with USB & Effects

**\$149.00 At Sweetwater** 

https://www.sweetwater.com/store/detail/MultiMix4FX--alesismultimix-4-usb-fx-mixer-with-usb-and-effects

### Behringer U-Phoria UMC404HD USB Audio Interface

\$179.00 At Sweetwater

https://www.sweetwater.com/store/detail/UMC404HD--behringer-u-phoria-umc404hdusb-audio-interface