

Annotations by Eric van Wagner

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Since many of the music courses for Fall 2020 may involve a return to remote/online teaching, you will need to purchase a suitable microphone and audio interface to ensure the best quality sound for recordings and online broadcasts. If you have questions or concerns, contact Dr. Yonchak ([myonchak@otterbein.edu](mailto:myonchak@otterbein.edu)).

*Why do I need to buy special equipment? Can't I just use my phone, tablet, or laptop to record?*

Phones/Tablets/Laptops are fine for academic classes, student meetings, general talking/presentations, etc., but music performance needs a better-quality signal. Recording on a phone/tablet/laptop does not provide a true representation of what you're actually recording.

The basic equation for your complete set up:

*large diaphragm cardioid condenser microphone + mic stand + USB audio interface + computer*

## I. Microphones

You make a sound, it goes in here.

\*from EVW: "garbage in, garbage out" - a cheaper microphone is going to make you sound bad. No amount of studio wizardry after the fact is going to fix that. The microphone is the most important component of this setup.

## II. The Audio Interface

You make a sound, it goes into the microphone. The microphone needs a path to continue moving your sound into a computer for recording or broadcasting.

The basic equation for an interface: USB connection, XLR (3-pin) jack, 1/4" headphone jack, phantom power (+48v switch or button)

USB audio interface suggestions:

- Behringer U-Phoria UM2, \$48 (will get it done; cheaper construction)
- **Behringer U-Phoria UMC22, \$68 (preferred; better constructed than the UM2)**
- Presonus AudioBox 96, \$99
- Presonus AudioBox iOne, \$109

\*from EVW: "the interface has little impact on the sound quality until you start spending big money" - the interface is just a way to funnel the sound through the microphone into your computer

## III. So what do I actually need?

Buying audio equipment is not cheap. However, it is an INVESTMENT in your collegiate music career. We've identified four levels of buy-in for students, each with unique benefits and drawbacks. Each column identifies *exactly* what you need to complete your setup (with the exception of a computer).

All of these suggestions are based on a home-recording project, not a perfect studio environment. The benefits of customizing various mics for specific instruments are lost once you are outside of a professional studio environment.

Price Range	<i>Under \$100</i>	<i>\$100</i>	<i>\$160</i>	<i>\$200</i>
<b>Microphone</b>	TONOR TC-777 (\$42, amazon.com), or Blue SnowBall iCE (\$89, amazon.com)	Behringer C1	Behringer C1	Audio Technica AT2020
<b>Interface</b>	n/a	Behringer UM2	Behringer UMC202HD	Behringer UMC22
<b>Other Accessories</b>	n/a	Mic Stand	Mic Stand	XLR cable, mic stand
<b>Benefits</b> 👍				
	<ul style="list-style-type: none"> <li>- All-in-one USB mic (no interface needed)</li> <li>- Comes with a mini tripod stand</li> <li>- Comes with vocal “pop” filter (Tonor only)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>available as a bundle</b> (Behringer U-Phoria Studio) with mic, interface, headphones, XLR cable</li> </ul>	<ul style="list-style-type: none"> <li>- <b>available as a bundle</b> (Behringer U-Phoria Studio Pro) with mic, interface, headphones, XLR cable</li> <li>- better built interface</li> </ul>	<ul style="list-style-type: none"> <li>- best quality mic/ professional grade</li> <li>- Long term resale value on mic</li> <li>- most versatile setup for many uses</li> </ul>
<b>Drawbacks</b> 👎				
	<ul style="list-style-type: none"> <li>- Functions <b>ONLY</b> as a computer mic (built for gaming, podcasts)</li> <li>- likely no resale value</li> <li>- USB tech may become outdated</li> <li>- limited/no onboard controls (all adjustments happen on the computer)</li> </ul>	<ul style="list-style-type: none"> <li>- mic stand not included</li> <li>- interface isn’t very sturdy (but it works)</li> <li>- likely little resale value</li> </ul>	<ul style="list-style-type: none"> <li>- mic stand not included</li> <li>- possible resale value as a bundle</li> </ul>	<ul style="list-style-type: none"> <li>- mic stand not included</li> <li>- no bundle options (everything is bought separately)</li> <li>- interface listed is a suggestion (the UM2 will also work)</li> </ul>

\* from EVW: smaller companies/suppliers are already out of business, anyone manufacturing in China is struggling to get products shipped (Behringer especially), but rumor has it that Sweetwater bought up a lot of stock in anticipation of this. Make sure whatever you are buying is IN STOCK.

#### IV. Saving Money.

Depending on your level of buy-in, you may have options to exchange/upgrade later for better gear, resell your current setup once you no longer have a need for it, or look for other ways to save money off of the retail price.

\*\* The music department is looking into buying a few of these setups for studios and classrooms in Battelle and make them accessible to EVERYONE (delivery TBD). This will be one option for students who cannot otherwise get their own gear for personal use. However, please consider the implications of “house” equipment: you may not be able to enjoy regular access, and there could be sanitation/disinfecting concerns amidst the current pandemic. *If you have the means to do so, get your own gear and free up the house equipment for students who need it.*

#### For used gear...

- [ebay.com](http://ebay.com), [reverb.com](http://reverb.com), [musicgoround.com](http://musicgoround.com), [GuitarCenter.com](http://GuitarCenter.com) (under the ‘used gear’ tab), [samash.com](http://samash.com) (under the ‘used gear’ tab)

**You can also take advantage of 0% interest financing with some retailers (credit approval required)**

- Sweetwater, Guitar Center
- \*\*\* *Credit Management 101: Pay off the balance BEFORE the end of the promo period, or get hit with an insane interest rate.*

**Consider crowd sourcing.**

- Go in on a purchase with one or two of your friends.

**TRIPLE check that whatever you are ordering is currently IN STOCK. Schools (K-12 and Higher Ed) that are doing anything online are suggesting the exact same equipment, and any delays/backorders could be devastating.**

**V. Distributors/Retailers (call before visiting to see if they have what you want in stock):**

- Independent/Local Music Stores (some will have virtual stores on eBay)
- Music and Arts - musicarts.com (store in Westerville)
- Guitar Center – guitarcenter.com (store in Columbus – Morse Road)
- Woodwind and Brasswind – online at WWBW.com
- Amazon
- Sweetwater -online at sweetwater.com
- Sam Ash Music - samash.com (store in Columbus – Morse Road)

\*\* for physical store locations, you might be able to get FREE SHIPPING to the store

**VI. Computers/Software**

Many of the programs we'll use are available online or will be pre-installed on Battelle computers. Certainly you can use your own computer at home, but the computer stations found in most Battelle classrooms should work with your standard USB interface (some audio setting may need to be adjusted on the computer).

Most of these programs are free and downloadable online. What to use and when will be detailed later on in your various classes and ensembles.

- SoundTrap (online)
- Audacity (free download)
- ProTools First (free version)
- GarageBand (Mac/iOS devices only)
- Audiotool (PC alternative to GarageBand)
- SmartMusic (1 year subscriptions purchased for you by the music department for relevant classes)

If you have questions or concerns (financial or otherwise) about any of this, please contact Dr. Yonchak ([myonchak@otterbein.edu](mailto:myonchak@otterbein.edu)).