

Music Major/Minor Technology Requirements for Online Learning

Item	Description	Strongly Recommended	Less Preferred Alternatives
Condenser Microphone	As musicians in an online environment, a microphone is an essential tool. You will need a quality microphone to use for your applied lessons, recording and live streaming virtual performances, and video conferencing. You have two options for connecting your microphone to your computer:	<p>XLR Condenser Microphone - THIS IS THE PREFERRED SETUP. This type of microphone uses an XLR connector (3-pin) and <u>requires an audio interface to connect to your computer</u>. While this setup might cost more, it is generally a better quality, more flexible, and a better investment for a career musician. See below for audio interface information.</p> <p>Examples:</p> <ul style="list-style-type: none"> • AKG P120 • Audio-Technica AT2020 • SE Electronics X1A 	<p>USB Condenser Microphone - This type of microphone connects directly into your computer via a USB connector and <u>does not require the purchase of an audio interface</u>. This might be a suitable choice for first and second year students who are not recording/streaming recital material, not enrolled in a music technology course, and those who are on a particularly tight budget. Be careful of what you purchase, as USB microphones can vary greatly in quality. The examples below maintain a specific standard necessary for recording music.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Audio-Technica AT2020 USB • Blue Yeti • Rode NT-USB
Audio Interface	<p>An audio interface connects your microphone to your computer via USB (or sometimes Firewire or Thunderbolt...when making your decision, be sure that your computer has a compatible type of port). An audio interface converts the analog signal from your microphone into a digital signal that your computer can understand. An audio interface also provides added gain and monitoring controls when you're recording.</p> <p>When selecting your audio interface, consider the type of ports you have available on your computer (USB, Thunderbolt, etc.), and the number of inputs and outputs you want. You may look at this as an investment in a future home studio setup, in which case you should consider how many instruments/microphones/inputs you may want to be able to record at once.</p> <p><u>Reminder: you do not need an audio interface if you've selected a USB microphone.</u></p>	<p>Multiple inputs and outputs for increased flexibility.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Presonus AudioBox iTwo 2x2 • Focusrite Scarlett 2i2 • Focusrite Scarlett 4i4 	<p>Limited to one single mic input.</p> <p>Example:</p> <ul style="list-style-type: none"> • Focusrite Scarlett Solo
XLR Mic Cable	Most USB mics will come with a USB cable, but you will likely need to purchase an XLR cable for your XLR microphone. Take into consideration your personal workspace and how much length you may need between your mic and your interface/computer.	<p>A longer cable (10-15ft) gives you more flexibility to move around your space and experiment with recording locations/positions.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Livewire Essential XLR Microphone Cable 15 ft. • Pro Co StageMASTER XLR Microphone Cable 15 ft. 	
Mic Stand	Your microphone may or may not come with a tripod desk stand. You'll likely need to be able to record standing and/or in different parts of your room, so you should consider purchasing a floor stand either way.	<p>Boom microphone stand.</p> <p>Example:</p> <ul style="list-style-type: none"> • Musician's Gear Tripod Mic Stand with Fixed Boom 	
Pop Filter (Vocalists only)	<u>If you are a vocalist</u> , this one is a must for recording with a condenser mic! Plosives (such as "B" or "P") can create a noisey pop in your recording. This helps filter out that unwanted noise.	<p>Any vocalists recording for a recital performance needs a pop filter. Strongly encouraged for all vocalists.</p> <p>Example:</p> <ul style="list-style-type: none"> • Sterling Audio STPF2 Professional Mesh Pop Filter 	DIY pop filter (only suitable for non-recital students).
Headphones	You will need studio-quality headphones to monitor yourself when recording, video conferencing with your instructors, listening back to your recordings, and working on your compositions.	<p>Look for headphones with a "flat frequency response," meaning that they don't alter the sound on their own. Consumer headphones such as Beats and Bose might sound good when listening to music casually, but they are not suitable for studio use. Consumer headphone cables are also often too short for studio use. Wired headphones are a MUST. Bluetooth connection creates too much latency (delay) for live performing with a track.</p> <p>Examples:</p> <ul style="list-style-type: none"> • AKG K240 Studio Headphones • Tascam TH-200X Studio Headphones 	

<p>MIDI Keyboard/Digital Piano</p>	<p>All music majors and minors need access to a keyboard. Requirements vary based on your individual needs as a student. See details in next column.</p>	<p>Students taking applied lessons in piano:</p> <ul style="list-style-type: none"> • Weighted hammer-action keys • 88 keys • Built-in speakers <p>Examples: Yamaha P-45 Casio CDP-S100 Compact Digital Piano Alesis Recital Pro 88-key Hammer-action Digital Piano</p> <p>Students in Keyboard Skills:</p> <ul style="list-style-type: none"> • Weighted keys • 88 keys <p>Example: Williams Allegro III (as well as every example listed above)</p> <p>Students in Music Tech for Majors:</p> <ul style="list-style-type: none"> • MIDI connection via USB • Velocity-sensitive keys • At least 61 keys <p>Examples: Nektar Impact GX61 (as well as every example listed above)</p>	<p>Students in Keyboard Skills:</p> <ul style="list-style-type: none"> • Semi-weighted keys • 61 keys • USB Connection to computer (requires computer to hear sound) <p>Examples: Nektar Impact LX88 M-Audio Keystation 61 MK3 Native Instruments Komplete Kontrol A61</p>
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Additional Comments

- In addition to these items, students are expected to have a personal computer (running either Windows or OSX) with the following specs:
 - At least 2.2Ghz i7 processor
 - At least 8GB of RAM
 - 64-bit operating system
 - At least 500GB of internal storage
- Keep in mind, there are many bundles available at major retailers such as Sweetwater, Amazon, and Guitar Center that may contain several items that you need for a reduced price.
- If you want specific advice based on your instrument/voice, specific areas of interest, and budget, feel free to contact your applied instructor or Dr. Butera (cbutera@spelman.edu).