

## PODCAST BOOTCAMP

### Required Equipment & Software

Having the right tools is essential for success in this course. Please read this document carefully, and if you have any questions, contact Graelyn at [ghbrashear@gmail.com](mailto:ghbrashear@gmail.com).

#### **You will need:**

- I. A laptop
- II. Adobe Audition (at least 3 months' paid subscription through Adobe Creative Cloud)
- III. Stereo headphones
- IV. Portable digital audio recorder capable of recording uncompressed sound files
- V. Quality handheld microphone with windscreen
- VI. XLR cable
- VII. SD card
- VIII. *Optional: external hard drive*

#### **I. Laptop**

Any laptop with at least 4GB memory (8-16GB is ideal for faster processing) and 30GB minimum free space on your drive. The more the better.

#### **Memory/RAM**

Internal memory allows your computer to run multiple programs and keep several windows open at a time without crashing. It also allows your system to have multiple computer processes happening at the same time (i.e., surfing the web and saving an audio edit).

*\*If you have or get a newer Macbook Pro model (released after September 2016), be sure to verify that its connection ports (USB-C and Thunderbolt 3) are compatible with the rest of your equipment. You may need an adapter.*

#### **Storage:**

This type of memory stores your work for the long term, not just long enough for it to appear on your screen.

A solid state internal drive (SSD) with 256GB space should be fine, but we strongly recommend an external drive that connects via USB 3.0/3.1 or Thunderbolt (see below for details on this). You won't have to worry about space on your laptop for all your audio files, and you'll be able to keep your projects safely backed up.

### **For PCs:**

Lenovo and ASUS are good brands; however, all brands have a varied range of models and styles. Buying a PC laptop can be difficult, but in general, rely on the specs listed above (processor, memory/RAM, storage, and graphics chip), rather than model names and styles.

## **II. Adobe Creative Cloud**

Your laptop must be able to effectively process Adobe Creative Cloud, and you'll be expected to install **Adobe Audition** on your computer. Please note that Adobe has recently changed its trial to be only 7 days long vs. the previous 30, so you will need to pay for at least 3 months of the subscription software (\$19.99/month).

If you have an **educational email** account, even an old one, try registering with that address to receive the educational discount. *Note: we do not issue @berkeley.edu addresses.*

## **III. Stereo headphones**

Any good quality stereo headphones that connect directly to your laptop and your digital recorder will allow you to gather and edit audio. We strongly recommend over-the-ear headphones as opposed to earbuds. Audio editors typically use studio headphones like these [Sony MDR7506s](#).

## **IV. Digital audio recorder**

Quality sound is what will set your podcast apart, and your recorder is one of the key tools that will make or break your audio quality.

You have a range of options, which we'll lay out below, but whatever recorder you choose, it must:

- Be able to record uncompressed .WAV files (as opposed to only recording compressed, "lossy" .MP3 files).
- Have XLR inputs (professional grade, three-holed ports) that allow you to connect a quality microphone. Some of the recorders in our recommendations below have built-in mics, but you won't be using those—the sound quality does not compare to what you'll get from an external mic.

These are our recommendations, from least to most expensive. There are plenty of good reasons to go for one of the more expensive models—the sound quality generally improves as you go up in price, even when paired with a less-than-amazing microphone, and some people have a personal preference for a specific recorder. But the basic Zoom H4nSP, the cheapest option here, will serve your needs very well for this course.

To buy, look for these recorders on Amazon, B&H and Sweetwater (links provided, but search on your own, too; sometimes deals pop up). To rent, see our suggestions at the end of this guide.

**Zoom H4n/H4nSP** (~\$160–\$190)

The least expensive option, and easy and intuitive to use.

Link to buy on [B&H](#), [Amazon](#)

(Note: B&H no longer carries the original H4n, but you can still find it elsewhere—and the H4nSP may end up being cheaper from some sellers)

**Tascam DR-40** (~ \$190)

Tascam’s answer to the H4n is this guy, a compact, inexpensive recorder.

Link to buy on [B&H](#), [Amazon](#)

**Zoom H4n PRO** (~\$200)

A lot like the H4n, but with a few upgrades, including a rubberized body and locking XLR inputs—very useful for recording in the field.

Link to buy on [Sweetwater](#), [B&H](#), [Amazon](#)

**Zoom H5** (~\$270)

An upgraded version of the H4n, with some improved features: somewhat better performance with lower-end mics, and easier-to-use volume knobs.

Link to buy on [B&H](#), [Amazon](#)

**Tascam DR-100mkIII** (~\$400)

Better sound quality, but it comes at a price.

Link to buy on [B&H](#), [Amazon](#), [Sweetwater](#)

**Marantz PMD661** (~\$475–\$600)

Beloved of audio nuts everywhere for its great sound and intuitive features. Worth looking into in case it’s available at a discount from one of the reliable sellers.

Link to buy on [Sweetwater](#), [Amazon](#)

## V. Microphone

Your microphone is the other crucial part of your audio kit. Even the most expensive recorders won’t provide you with clean recordings if your microphone is lousy. As with the audio recorder, your microphone must connect with an XLR cable. There are two fundamental kinds of mics:

- **Condenser:** These require an external power source, like a battery or a supply of power from your recorder (this is called “phantom power”). They provide good sound without added “hiss” that you may get from some audio recorders. However, they’re not very durable, which is a big drawback for field recording. They also tend to be more expensive.
- **Dynamic:** These are much more durable than condenser mics and require no extra power, and there are good ones available at a lower price point than most

condenser microphones. However, they tend to record at a slightly lower level than condenser mics, which requires your recorder to boost the signal, which can make your audio sound slightly less clean. However, this shouldn't stop you from going for a dynamic microphone. The ones in our recommendation list below are great options.

You'll also see the terms "omnidirectional," "cardioid" and "shotgun" when looking at microphones. This refers to the pickup pattern, which defines the area the mic is most sensitive to sound. **Omnidirectional microphones** will pick up sound from every direction equally, making them great for capturing ambient sound. **Cardioid microphones** are more directional, and allow the recorder to point the microphone the direction in which they wish to capture audio. **Shotgun microphones** are even more directional, and allow you to get sound from a point that's a little further away than a cardioid mic, making them important for some types of field recording, if not very versatile.

**So what combination of attributes should you look for?** This depends on how much you want to pay and the type of recording you think you'll be doing most. If you're not sure and you want something versatile and not too expensive, a dynamic cardioid mic is a good choice. Here are a few recommendations.

**Audio-Technica ATM10A Omni-Directional Condenser Microphone (~\$170)**

Link to buy on [B&H](#)

**Electro-Voice RE50B - Omnidirectional Dynamic Microphone (~\$180)**

Link to buy on [B&H](#), [Amazon](#)

**Sennheiser MD 46 Cardioid Microphone (~\$200)**

Link to buy on [B&H](#), [Amazon](#)

**You will also need a [foam windscreen](#)** that fits snugly over the head of your microphone. Take a close look at the measurements of your microphone before you choose a windscreen, so you can be sure the windscreen fits.

**VI. XLR cable**

This is the cable that connects your microphone to your digital recorder. It should have a male end with three pins and a corresponding three-socket female end. Look for one that is three feet, [like this one](#), or six feet at the most—any longer will be too unwieldy.

**VII. SD card**

This is the slim card that fits into many digital devices and records audio, photos, or video. An 8GB card, [like this one](#), will suit your needs for this course.

### VIII. External hard drive (optional)

You may want an external hard drive to store your project files on. It should have at least 100GB of free space and should be able to connect to your laptop via USB 3.0+, Thunderbolt, or Firewire. [This option from G Technology](#) is a good example of what to look for.

### RENTAL OPTIONS

If you do not own suitable equipment and you do not wish to buy it, you will need to rent. We recommend ordering through [Borrowlenses.com](#), which carries the pricier pieces of [audio gear](#) you will need:

[Zoom H4n recorder](#)

[Shure SM58 Cardioid Microphone Kit](#) (includes XLR cables and windscreen)

***Note: Most audio equipment is fairly affordable. Buying is likely more cost effective than renting, especially if you plan to use it after this course.***