

# Podcasting 101: How-to-Guide to generating an educational podcast

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## A. The Equipment

**1. The headset and microphone:** I recommend the speech recognition headsets from *Rosetta stone* (\$29.99). They are rather inexpensive and are of high quality. However if you wish you can use the microphone on your computer.

<http://www.rosettastone.com/personal/headset>

### 2. The Software: Mac Users

*GarageBand* – part of the iLife11 software package, which comes free on all new Mac computers. However if you have an old Mac, you can purchase the iLife program with an educators discount the package for \$20 (it runs \$100 without the discount).

Note: pre-2008 versions of GarageBand do not have podcasting feature.

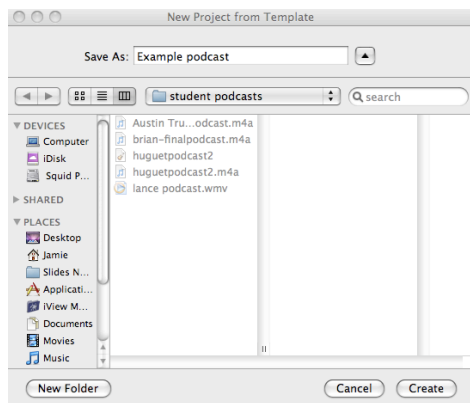
*PC users* – I recommend the program CamStudio <http://camstudio.org/>

## B. Getting started




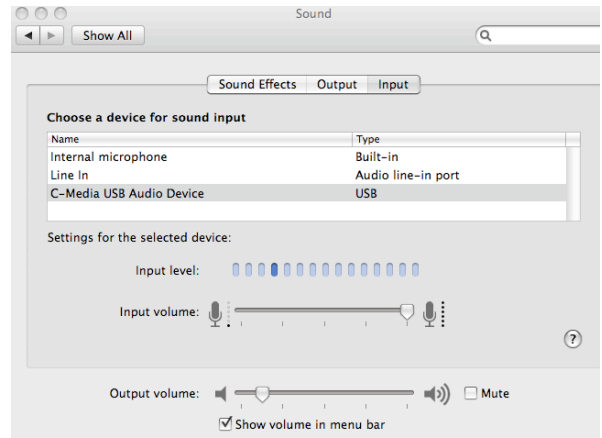
1. Look for the guitar shaped GarageBand icon on the Mac desktop Dock and double click. Note if icon is not on the dock click on the hard drive icon; application; GarageBand icon

2. Click on “Podcast”.

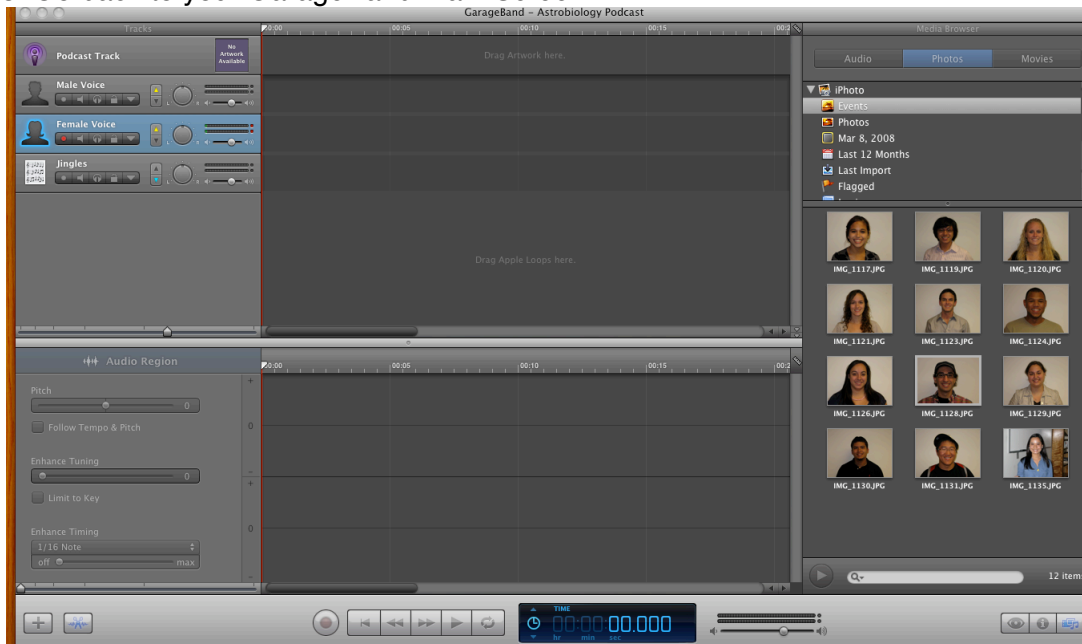


3. Save your GarageBand Template to the folder of your choice

4. Plug your Headset into the USB port and make sure that your USB headset is selected as the audio input device. To check this go to: Apple Icon at the top of screen ; system preferences; sound. Your sound setting should look like the following: (the USB device should be highlighted) if correct then close the window.



5. Go back to your GarageBand Main Screen



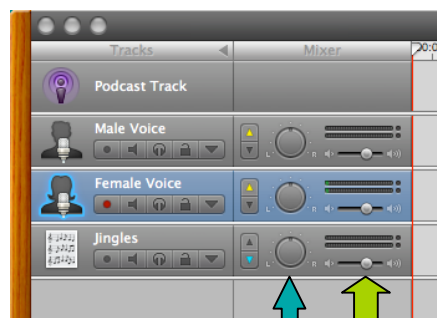
6. Now we can begin to record.

### B. Recording or Import your Audio

1. Click on either the male or female track. The track will appear blue once highlighted.

2. Make Adjustments as needed to recording volume and balance.

**TIP:** I have found it is necessary to lower the recording volume significantly before starting.



Adjust volume of recording  
Adjust balance of sound

## Importing Audio:

3. You can at this point either import your audio as an MP3 or WAV audio file. Just drag your file into the gray space next to the male or female voice track. Then you can proceed to the Editing Audio Section (#8).

## Recording Audio:

4. However if you do not have a prerecorded audio you can record your own.

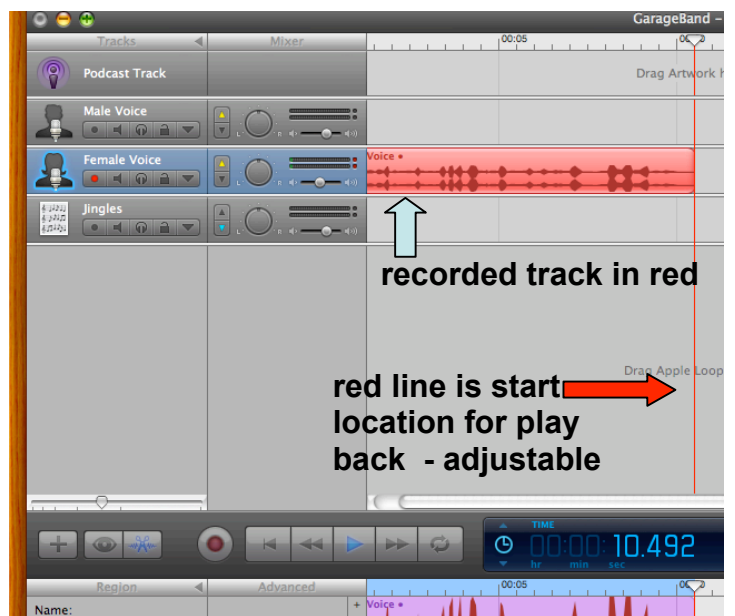
5. Click the **red circle** and start speaking. Click red circle when you want to stop recording you stop recording.

**TIP:** However a better trick to **stop** recording is to click the **blue play button** when you want to stop recording (play button only blue when actually recording) This will stop both the recording and the advancement (playing) of other tracks. As indicated by the red vertical line (see in below figure).

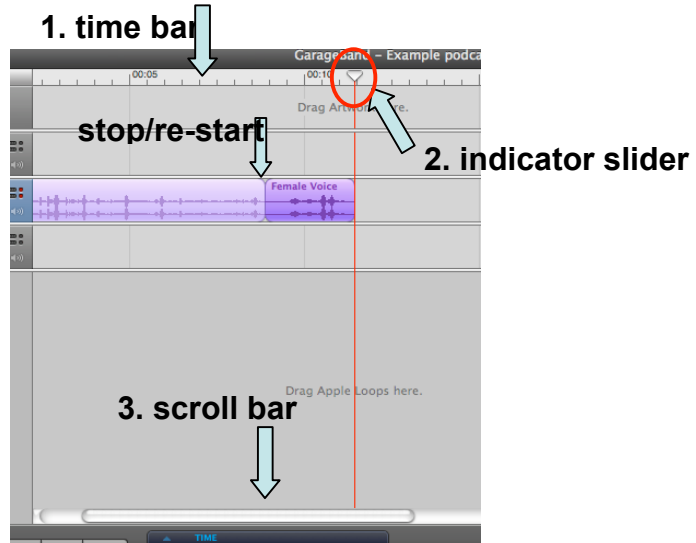
**TIP2:** Note there is a 2-3 second delay before the recording starts. So click the red circle and then pause before you start to speak. You can always edit later if too much dead air space.

6. When your voice is recording the track will appear red. You can stop and start as many times as needed.

**TIP:** I like to stop and restart after every slide. By including stops you can see the location of where to add your slides. This also makes it easier to edit from year to year if you want to change your slide content or vocal track



7. To play back what you have recorded there are three ways: **A.** Click on the **time bar**; **B.** drag the **indicator slider** (red line) by the triangle (in the red circle) at the top of red to the line left and right; or **C.** Drag the **blue scroll bar** (blue only when active) to the right and left.

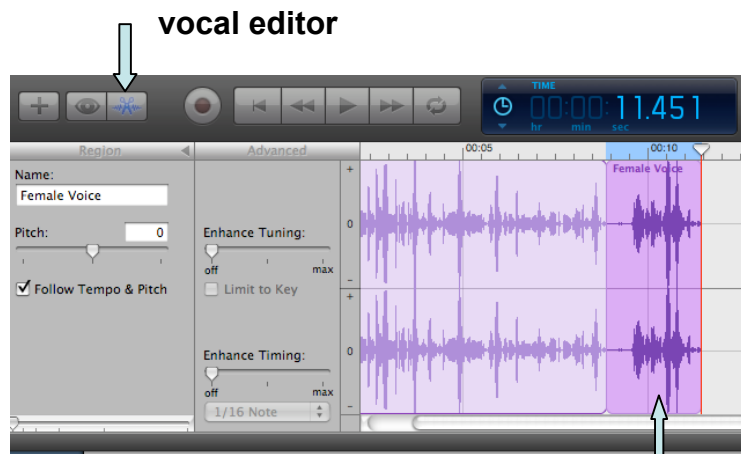


### Editing your Vocal Track

8. To edit your vocals click on the **vocal editor icon**, which is a blue pair of scissors. This will cause the detailed vocal track to appear.

With the mouse click on to the Purple track and drag over the area you wish to cut. Once highlighted press delete on the keyboard.

**TIP1:** this is a great way to get rid of unintentional “ums” or coughs



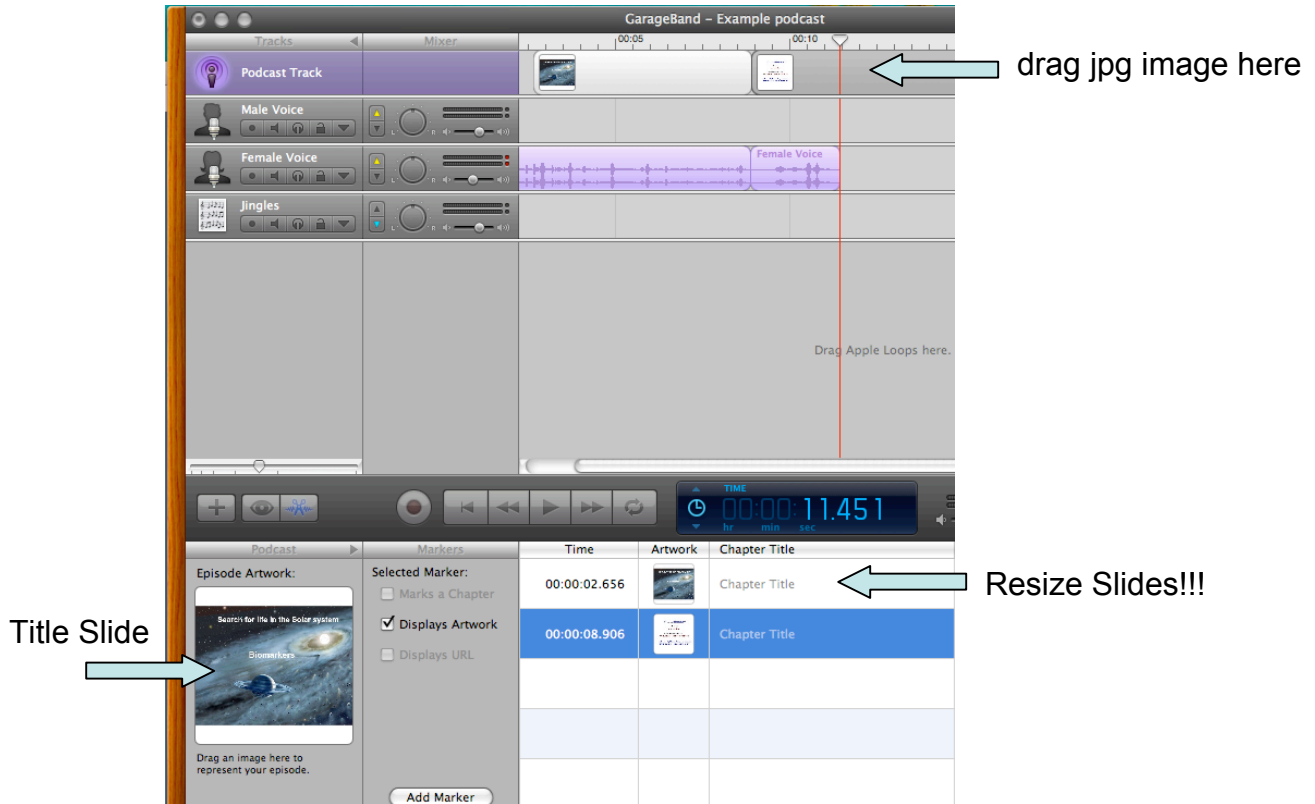
**detailed vocal track**

**TIP2:** You may need to replay a few times to see the output vocal pattern to know specifically where to cut (e.g. an “ums” and coughs leaves a very distinctive pattern). To replay a section simply drag the red line back to where you want to start over.

9. Once you have removed the section. Then go back up to the main voice track and click on the vocal to the right and drag back to the left until it joins the previous purple track. The Garageband software will automatically smooth out the transition.

### C. Adding your slides

1. Once your vocals are the way you want them. Its time now to add your slides (referred to as artwork by GarageBand program).
2. Click on the Podcast Track and it will be highlighted in purple.



3. Save your PowerPoint presentation as individual jpg images. Each one will be saved as a separate file (Slide 1, 2, 3 ect...) in a separate folder.

4. Drag your title slide (Slide 1) to the Episode Artwork box (labeled as Title Slide). You will need to resize the slides (see below). The title slide will be the icon for your podcast when you play in iTunes or other media player.

5. Drag your title slide (slide 1) again to the gray podcast track (extend the slide box so that it reaches all the way to the left. This way a slide will play right away and there will be no gaps in the slide presentation. The slide will automatically be displayed the same length as the vocal track.

6. When you want a new slide to appear drag your next slide to the transition point. The program will automatically extend the slide to the end of the vocal track. Or until you add the next slide and so one.

**TIP1:** When you are recording I recommend that you include phrases like “let’s go to the next slide” or “on the next slide”. These phrases will be important audio cues to where you want to insert and drag your next slide.

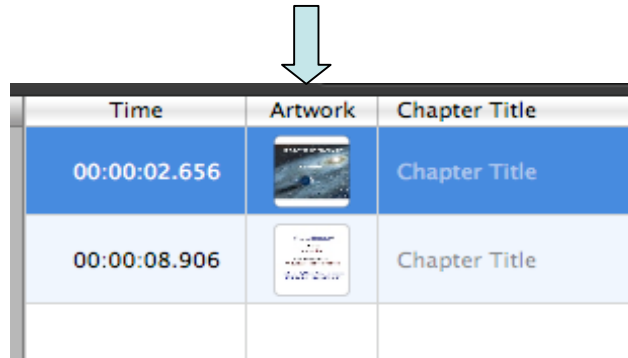
**TIP2:** You can also use your recording stop and starts to guide you to where your slide transitions are. This isn’t always perfect as you may have edits in your tracks that look like recording stops.



### Resize your slides!!!!

7. It is very important that you resize your slides or they will be cropped in the final output.

8. Double click on the each slide icon and an artwork editor window will open. It will show you the final appearance of the slide. Drag the slider all the way to the left so that the entire slide appears in the window. **Click set!!**

double click each slide icon opens artwork



Time	Artwork	Chapter Title
00:00:02.656		Chapter Title
00:00:08.906		Chapter Title

You have to do this for each slide.

**TIP1:** I also recommend that you couple your vocal track editing and the additional of slides. This will save you production time.

**TIP2:** I **STRONGLY** recommend that you continually **SAVE** after recording every slide. **GarageBand does not have an auto recover function.**

9. Once your slides have been added and your editing is complete. Check the tail end of the podcast by dragging the scroll bar all the way to the right. Often Garageband adds some dead air space and extends the last slide a few seconds longer than vocal track.

**TIP:** Also if you made a lot of edits this will cut down on the length of the podcast and you will have to drag the last slide to the left to where the vocal recording ends. This will reduce the dead air space and reduce the final size (Mb) of your podcast.

## D. Exporting and compressing the podcast

1. Once the vocal and slide editing is completed you need to export the GarageBand file.
2. On the top GarageBand tool bar click Share; Export Podcast to Disk. The following window opens.
3. Use the following settings. Compress using **AAC Encoder** and **Spoken Podcast**. Click Export!

**TIP:** Do not use the recommended size for podcasts for published. This will cause you to lose resolution on the final slide output.

5. This compression will take some time and will depend on the length of your podcast. However you do not have to monitor the compression.



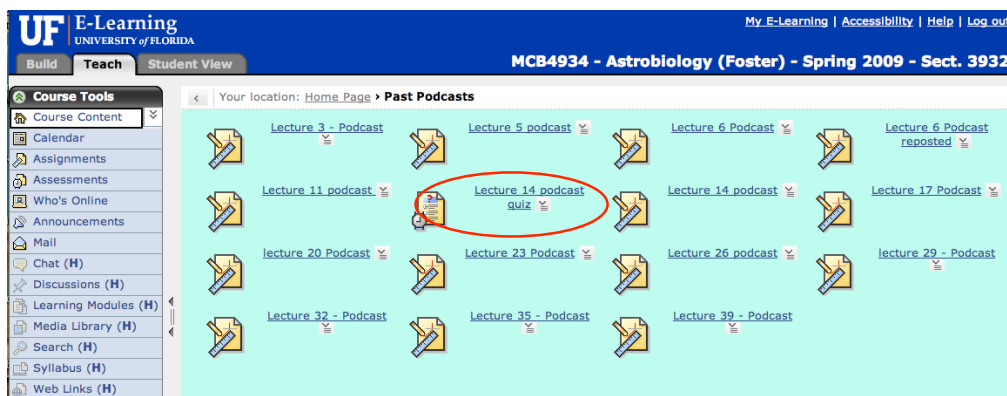
6. Once completed an m4a file will be which can be played on **iTunes** or **QuickTime**. Both are free for PC and Mac users. Note windows media player will not play this file.

**TIP:** I recommend iTunes to play the podcasts. The resolution and sound quality is high.

## E. Disseminating the podcast

Although there are many ways to disseminate your podcast, I recommend the following:

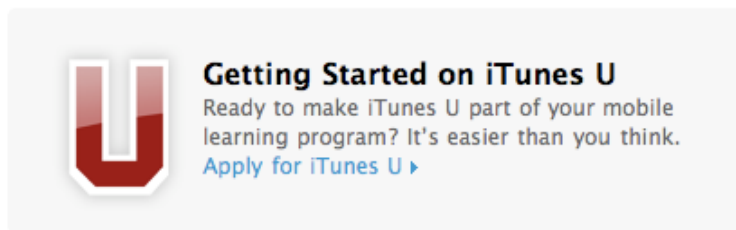
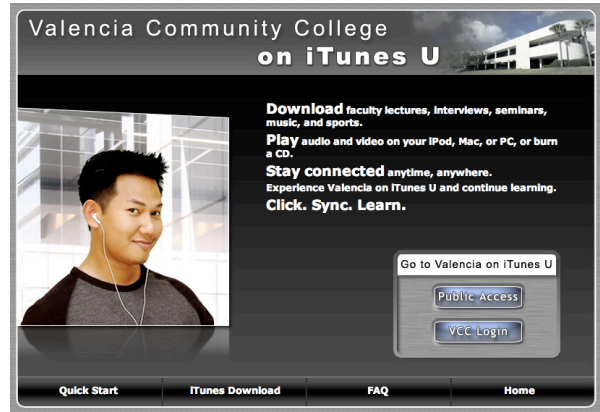
1. **Sakai** – The podcast files will range from 20-100Mb in size depending on the length of the podcast. I recommend uploading to Sakai as an assignment. Students can download lecture and listen when it is convenient for them (and you can make the podcast when it's convenient for you).



**TIP:** Surveys from my Astrobiology class have shown that generating a small 3-5 question multiple-choice quiz for every podcast helps motivate the students to listen carefully to the podcast lectures. These quizzes are easily generated via E-learning.

**2. iTunes University** – You can generate a free subscription to the podcasts via iTunes University. The advantage of this is that the students can subscribe to the lectures so that they are automatically downloaded every time they open iTunes.

You can establish release dates for individual podcasts or you can disseminate all at once.



The university can develop both an internal and external iTunes University sites <http://education.apple.com/itunesu/>

**Acceptable media formats for iTunes University: AAC, MP3, MPEG-4, PDF**  
Podcasts are in the AAC formats.