## WHAT IS HANDBRAKE?

Handbrake is an app that allows you to change video quality, reduce video file size and change between video file formats (transcoding). This will let you take videos saved from your camera or phone, edit them, and get them ready to upload and share.

THE INTERFACE

This is what Handbrake looks like. It might look a bit complicated, but for the most part, you'll only need to worry about a few settings:

- Source

- Destination

- Picture Settings (Specifically Width, Height and "Anamorphic")

- Bitrate settings on the "Video" tab.
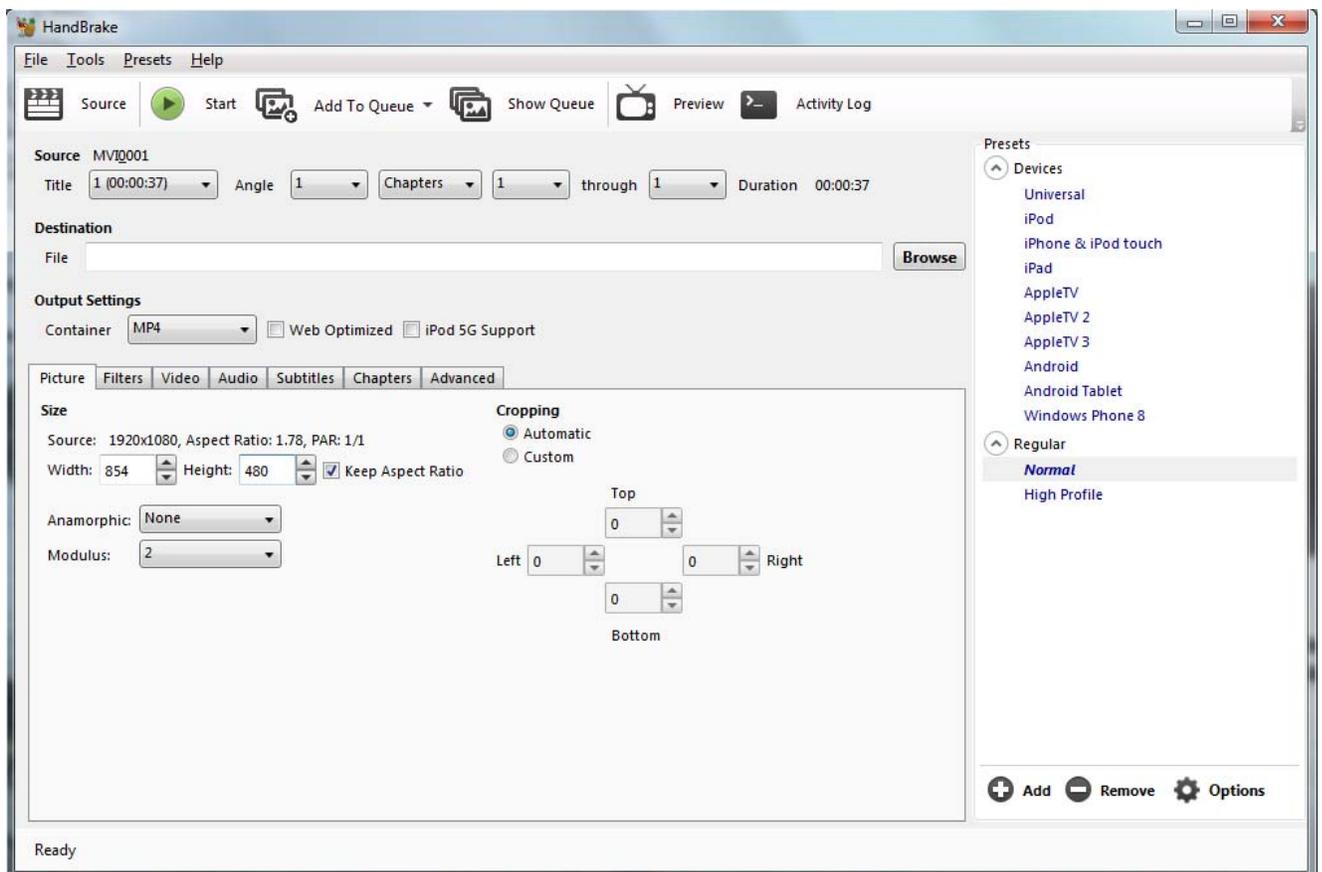
The column on the right is full of presets, or ready-made file-sets for specific file types and devices. Since we do not know exactly what devices your video will need to be viewed on, we'll ignore these for now and focus on getting your video ready for submission!

METHOD 1: SHRINKING YOUR VIDEO

At its most basic, this means reducing image quality. HD video takes up huge amounts of storage space – often way more than you can easily attach to an email, upload to the cloud or even transfer to a smaller-sized USB drive. One way to make video file sizes smaller is to reduce the *resolution.* This means reducing the number of pixels in each and every frame of the video. Luckily this isn't something that you have to do by hand.

You can use Handbrake to reduce a video from HD (720p or 1080p) file sizes to (SD) standard definition file sizes (480p) fairly quickly and very easily.
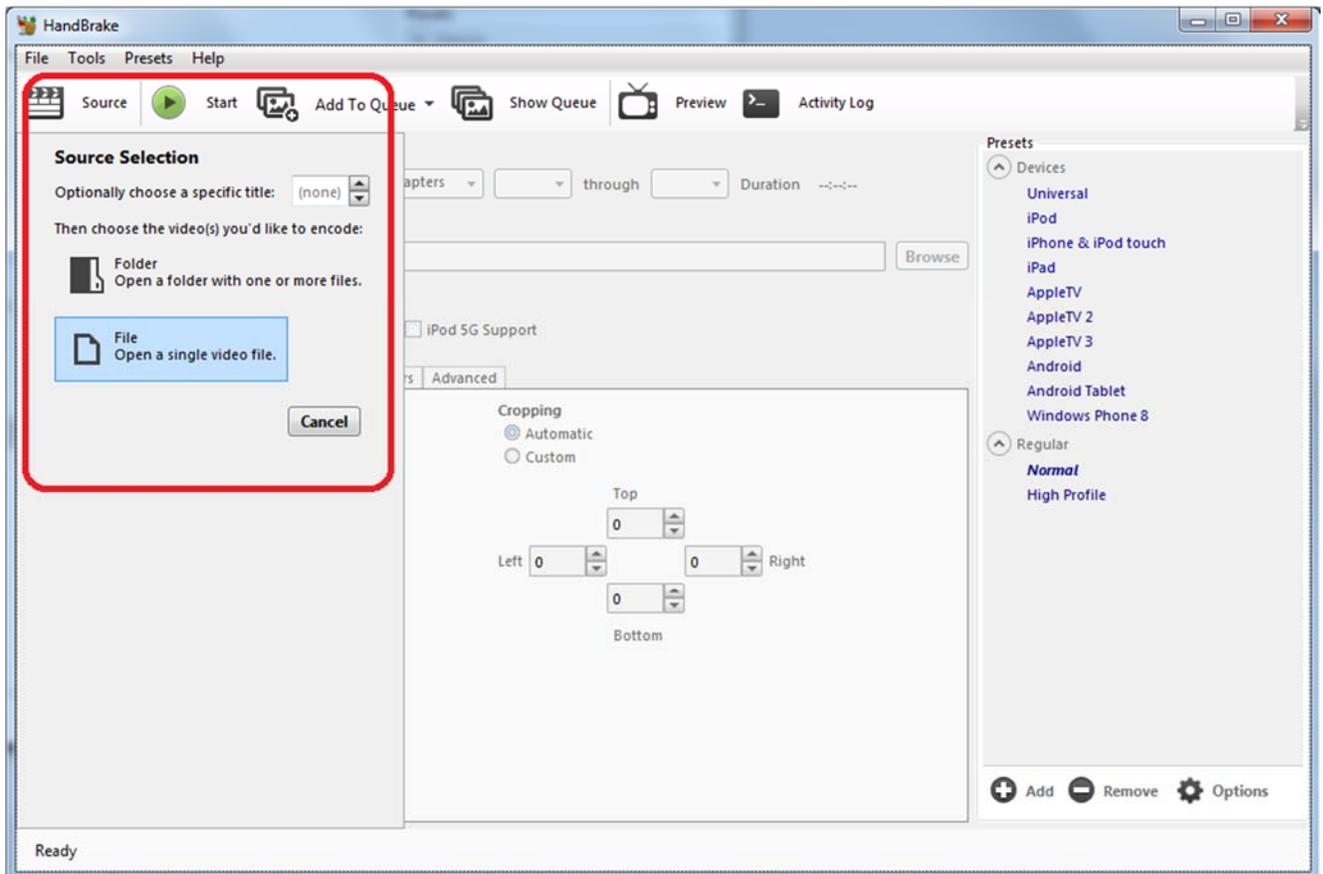
- Start by telling Handbrake where your video is. Click "Source" and select "File: Open a single video file."
- Navigate to where you have saved your video, and select it.

Handbrake will take a bit of time loading up your video and prepping to work on it. The larger the file, the longer this could take.

Tip: Always work on a *copy* of your original file. This allows you to keep a full-quality version of your recording in case you need to do more work with it later on.
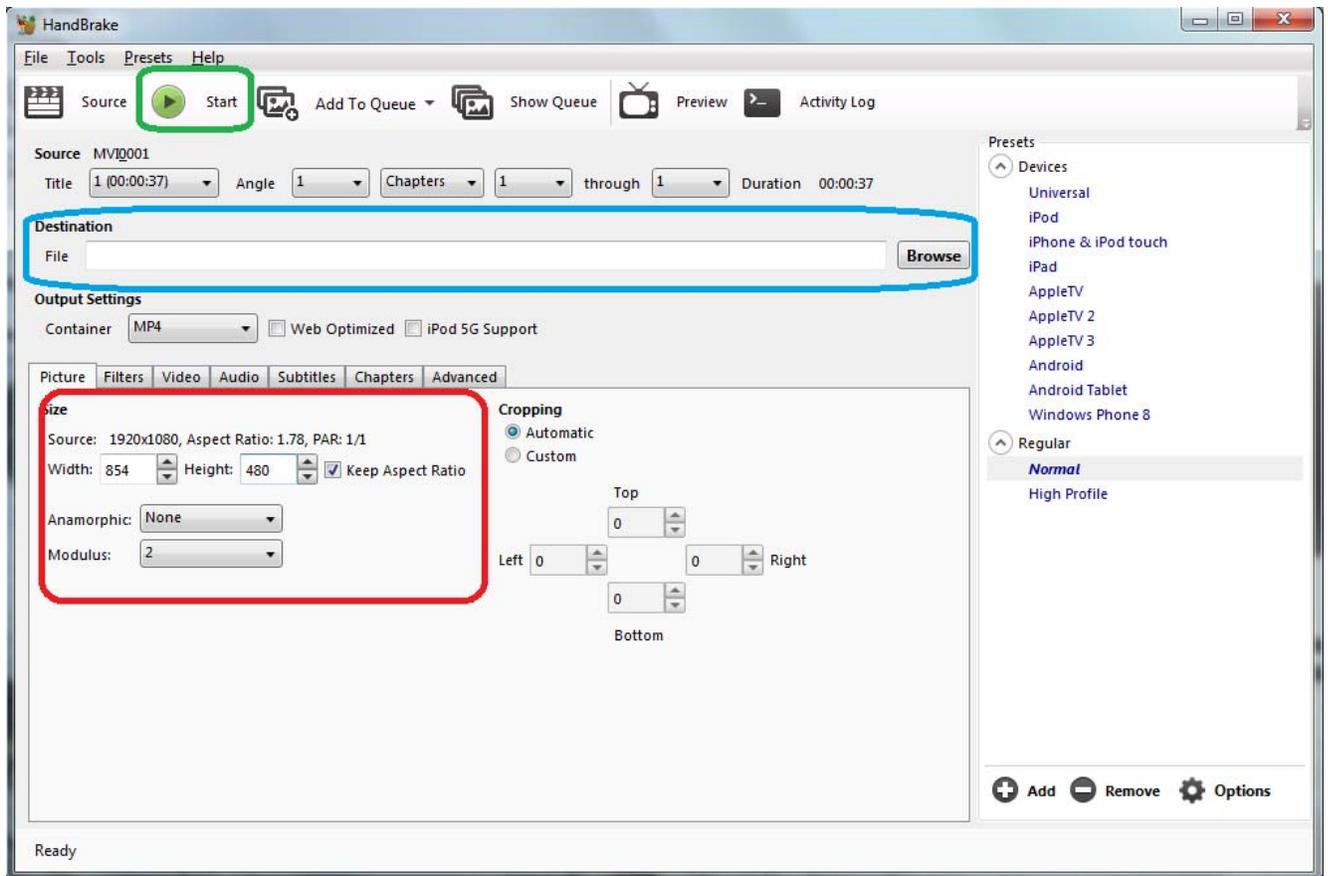
- Change the "Anamorphic" dropdown box from "Loose" to "None." This will open up the "Height" setting to be able to make changes.
- Make sure that the "Keep Aspect Ratio" box is checked. If it is not checked, everything in your video will look squished.
- Adjust the "Height" box to 480. This should automatically change the "Width" setting as well.

- Click Browse and Select a location for your new file to go. It's OK if you want to save it to the same folder as your original video, but be sure the name the file something like: Videoname_small.mp4
- If handbrake tries to give your file the extension of .M4V, just change it to MP4 before you start the process.

- Click "Start" to get the process going. You'll see a progress bar appear, and Handbrake will tell you how much has been completed, how long it's been working on your video, and will estimate how much longer it still has to go. Once it is complete, you will have a lower quality, but smaller, version of your video ready to upload!

Once your video is complete, you can upload it to OneDrive to share it directly with your instructor.

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METHOD 2: REDUCING BITRATE

A second option is reducing the bitrate of your video file. This preserves the original HD resolution, but loses some fine detail – often not even enough to notice in some situations.
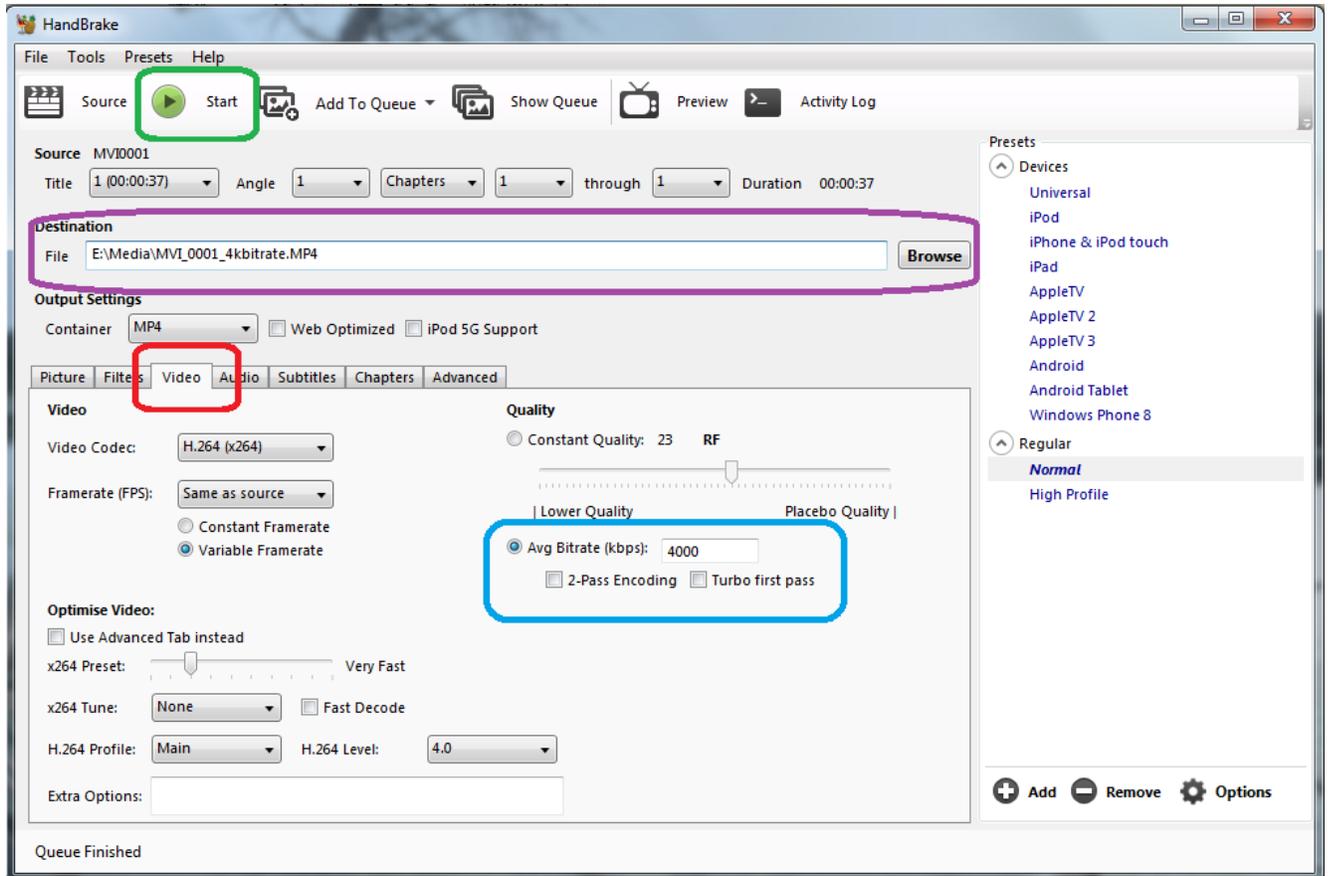
- Click on the Video tab, opening up more advanced video options

- Select the Avg Bitrate (kbps) option and enter in 4000 (as a good rule of thumb – read below for more info.)

- Select a destination for your video. It's OK to save the video in the same location as your original file, but be sure to name it something like: Filename_4k.mp4 to be sure you don't overwrite your original file!

- Click start to get Handbrake going! Depending on how long your original video is, this could take some time.

Reducing Bitrate is a good way to keep your file as HD, but lose some of the file-size. If it's important to submit a High-Definition file, this is the best way to do it. Note that each camera model tends to record HD video at slightly different Bitrates. Find out what bitrate your video file was encoded at, and then you can get an idea of how small of a file you'll end up with if you reduce it to 4000. If your video file was originally recorded at 16000, lowering it to 4000 will result a file approximately one quarter the size. If your original file was recorded at 8000, lowering it to 4000 will result in a file only half of the original size.