



CENTRE FOR EDUCATIONAL  
EXCELLENCE

## Recording Videos

Many classrooms at SFU have Mediasite built into the room, where the recording will automatically start and stop according to the booked timeslot with IT Services. However, if you are teaching in a room that does not have this functionality and you want to record your lecture recorded, perhaps for students who could not attend, there are several methods to do this.

To choose your recording method, here are some things to keep in mind:

- Do you have a connection to the internet? Zoom and the Mediasite recording app will *not* record or connect without it.
- Do you want to save the file to your computer or to the cloud (using Zoom)?
- Do you want captions for accessibility?
  - Do you want the captions fixed or “burned in” to the video (open)?
  - Do you want the captions to be able to be turned off (closed)?
  - Do you prefer to have Google Chrome do all of the captioning after you upload your video?
- Do you want to upload it yourself (i.e. Mediasite) or leave it in the cloud (Zoom)?
- Do you want to do any editing to your video?

## Overview

The following is an overview of the elements of video recording. Procedures for each are listed in expanded sections linked to each topic name.

### Section 1: Microphones

Audio is an important part of recording, and sometimes more important than the visuals, so have good audio is a key element to recording. To go to the recommendations for microphones, go to [Section 1: Microphone Procedures](#).

### Section 2: Zoom Recordings

In addition to being a way to conduct live, synchronous meetings or classes, **Zoom** has become a way to create screen recordings of lectures to watch later, including creating captions for accessibility. To go to the section for recording with Zoom, go to [Section 2: Zoom Recording Procedures](#).

### Section 3: Alternative Recording Methods

Without an internet connection, or if you prefer not to use Zoom, you can record on your computer by using the **Screenshot** app on Macs (Mojave and newer OS's), or by using the **Game Bar** app on Windows 10 PC's. To view the alternative recording methods, go to [Section 3: Alternative Recording Method Procedures](#).

## Section 4: Mediasite

You can upload your own video to Mediasite (from Zoom or another recording method), or you can use the Mediasite Recording App (Mediasite Mosaic or Mediasite Desktop Recorder) to record videos with an internet connection. Uploading a video to Mediasite can be done just by itself, or with a captioning file. The video can then be embedded into Canvas and streamed for your course. To view the processes for Mediasite, go to [Section 4: Mediasite Procedures](#).

## Section 5: Captioning with Chrome

Perhaps the easiest method for captioning that doesn't require any Zoom or Mediasite setting adjustments or additional files is to simply have the students watch the video on Mediasite or from the cloud using **Google Chrome**. To see how to use Chrome for captioning, go to [Section 5: Captioning Procedures for Chrome](#).

Additional information on **CEE's tech tools** can be found here: <https://www.sfu.ca/cee/services/remote-teaching-support/tech-tools.html>.

To access **CEE's Effective Remote Instruction** Canvas course, go here: <https://canvas.sfu.ca/courses/52785/modules>.

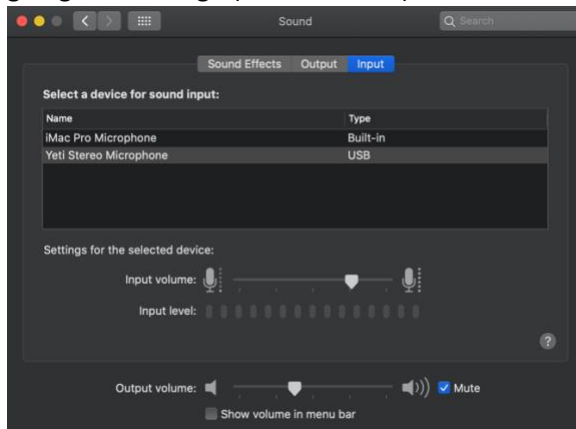
# Section 1: Microphones

Sound can often be even more important than visuals to the viewer/listener, whether it's on [Macs](#) or [PC's](#). You need to have quality audio for any video, usually from a good, external **microphone or headset** that can provide crisp, clear sound. If you do not have one, then try to stay as close to your computer as possible (1-3 feet), because the further you are away from the internal mic, the worse the audio will sound (hollow, distant, tinny).

## Microphones – Macs

- 1) Go to **Preferences>Sound**
- 2) Select your **Input**. Your input will be the microphone you want to use. The default will be the internal microphone. If you have an external USB or Bluetooth microphone or headset, choose that as external mics generally have better quality and clarity (i.e. Yeti mics). If you have a Bluetooth headset, make sure that Bluetooth is turned on and connected, and note that Bluetooth can sometimes drain batteries quickly. Check your **Input Volume** and **Input Level** meter to see the audio level and adjust accordingly. An audio level **three-quarters** to the end is a good guideline.

\*Note that **Bluetooth** devices can suffer from interference or delays and it can affect the recording. Due to being on the same 2.4 GHz frequency, WiFi, wireless speakers, baby monitors, microwave ovens and florescent lights can cause disruptions, as well as physical obstructions or going out of range (about 30 feet).



- 3) Select your **Output**.
  - a. If you don't have a headset or headphones, choose the computer as the Output and turn the sound down so you don't get feedback.
  - b. If you have a headset or headphones, choose that for output.
  - c. Some mics, like Yetis, may also be Output devices as they may have a headphone jack.

- 4) In Zoom, under **Preferences>Audio**, make sure that the Input and Output match the Apple Preferences. A meter will show the sound input level. The ideal level should be at about 2/3 to 3/4 to the end of the meter. You can alter the Input Volume if needed, or adjust the volume on your headset or microphone, or in Sound Preferences.

## Microphones – Windows 10 PC's

- 1) Search for **Sound Settings**
- 2) Select your microphone. An external mic is preferred.
- 3) In Zoom, under **Preferences>Audio**, make sure that the Input and Output match your Sound settings. A meter will show the sound input level. The ideal level should be at about 2/3 to the end of the meter. You can alter the Input Volume if needed, or adjust the volume on your headset or microphone.
- 4) In Zoom, under **Preferences>Audio**, make sure that the Input and Output match the Apple Preferences. A meter will show the sound input level. The ideal level should be at about 2/3 to the end of the meter.

## Section 2: Zoom Recordings

Zoom's Record function allows for an easy and quick way to do this without much additional work, and settings can be adjusted to make sure students in the meeting aren't recorded. Zoom recordings even work when recording a lecture by yourself, provided that you have an Internet connection. If you've recorded to the cloud, you can embed the Zoom recording right into Canvas and not have to worry about any other uploading. If you save a local file to your computer, you can upload it to Mediasite.

You can navigate to [Zoom Recording \(without Captions\)](#) and [Zoom Recording With Captions](#).

Captioning for accessibility purposes is also an important consideration. **Subtitles** and **Captions** in Zoom serve the same purpose, they just display the running transcripts in different ways – on the bottom for Subtitles or organized by speaker in the sidebar for Captions. Subtitles here do not offer language translations. The transcripts can be open and “burned in” to the video where they cannot be turned off, or an additional VTT captioning file can be created to go with the cloud version. The VTT file can be converted and uploaded with the Zoom video to Mediasite, if you prefer it there. See [Section 5: Captioning With Chrome](#), if you would rather avoid this captioning method.

### Zoom Recording (without Captions)

**\* NOTE: Zoom will not connect or record without an internet connection, even if no one else is in the meeting. IT Services had additional instructions for cloud recording here:**

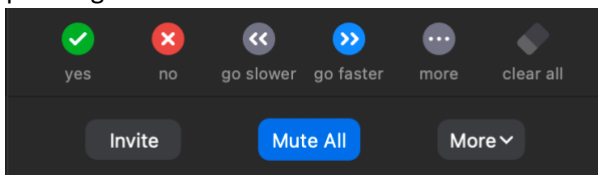
[https://www.sfu.ca/information-systems/services/zoom/how-to-guides/zoom-meeting/cloud-recordings.html#main\\_content\\_title](https://www.sfu.ca/information-systems/services/zoom/how-to-guides/zoom-meeting/cloud-recordings.html#main_content_title)

- 1) To have participants video always set to off upon entering the meeting, go to <https://zoom.us>. Go to **Settings>Meeting>Schedule Meeting** and toggle off **Participants Video** (\*Note that participants can turn their video back on, but all videos will be off to begin). **Mute all participants when they join a meeting** will also be locked and toggled off and cannot be turned back on.

#### Participants video

Start meetings with participant video on. Participants can change this during the meeting.

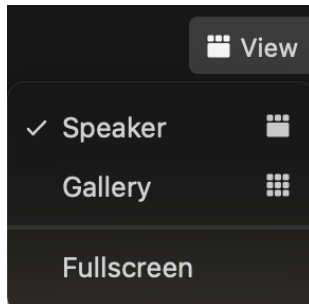
During the meeting, the Host can turn off all mics but clicking on the **Participants** list and pressing **Mute All** at the bottom of the list.



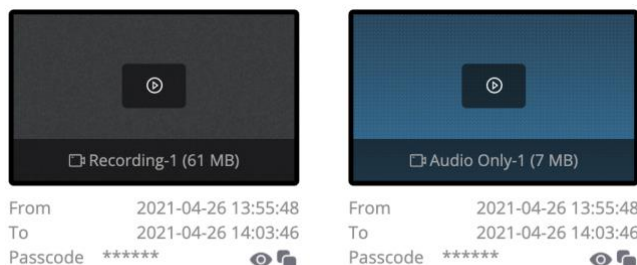
- 2) Start your Zoom session

- 3) If you don't want students' videos or their names in grey boxes recorded, switch your Zoom view from **Gallery** to **Speaker**. In Speaker view, the shot will change when someone talks, so muting microphones will stop this from happening.

\*Note: When Screensharing, you can drag the vertical dividing line between the speaker's video and the screenshare to change the amount of screen devoted to each part.



- 4) Click **Record**. Choose whether to **Record on This Computer** or **Record To The Cloud**.
- 5) At the end of the meeting/class, press **Stop**.
- 6) **End** the meeting (\*recorded files will not be generated until the meeting ends).
- 7) If you've saved it as a **local file**, a prompt will ask you to convert it (or find the Zoom files on your computer if you convert the files later). The files created will include:
- a. **M4A** audio file
  - b. **MP4** video file
  - c. **M3U** file (ignore this file)
- 8) If you've saved it to the **cloud**, the files created on the Zoom page in Canvas will be the following. These files on the cloud are only available to download by the instructor. The students will be able to play streaming versions of audio or video.
- a. **M4A** audio file
  - b. **MP4** video file
- 9) When uploaded to the cloud, students will need to enter the hidden passcode located immediately under the video or audio files. The passcode can be copied and entered when the video or audio is clicked on to open it.



- 10) The MP4 and/or the M4A files can be edited and/or uploaded to Mediasite. The audio file is only needed if the visuals are not needed.

## Zoom Recording with Captions

\* **NOTE:** Zoom will not record without an internet connection, even if no one else is in the meeting.

- 1) Go to <https://zoom.us>.
- 2) To enable live transcripts or captioning for accessibility, go to:
  - a) **Settings>Recording** and toggle on **Viewers can see the transcript**. When **Viewers can see the transcript** is turned *on*, users with the sharing link will be able to view transcripts of recordings at the bottom as **Subtitles**, or in the sidebar as a **Full Transcript**. This setting is applicable to newly generated recordings only.

### Viewers can see the transcript

When this setting is turned on, users with the sharing link will be able to view transcripts of recordings. This setting is applicable to newly generated recordings only.

- b) Click on **Audio Transcript** near the top under **cloud recording** if you want the transcript in your recording as a Full Transcript (\*not a Subtitle) on the sidebar, but not necessarily in your live meeting. A VTT subtitle file will *not* be created with this turned on. **Record an audio only file** will create an additional M4A audio file.

### Cloud recording

Allow hosts to record and save the meeting / webinar in the cloud

- ☒ Record active speaker with shared screen
- ☐ Record gallery view with shared screen ⓘ
- ☐ Record active speaker, gallery view and shared screen separately
- ☒ Record an audio only file
- ☐ Save chat messages from the meeting / webinar

### Advanced cloud recording settings

- ☐ Add a timestamp to the recording ⓘ
- ☒ Display participants' names in the recording
- ☒ Record thumbnails when sharing ⓘ
- ☐ Optimize the recording for 3rd party video editor ⓘ
- ☒ Audio transcript ⓘ
- ☐ Save panelist chat to the recording ⓘ
- ☐ Save poll results shared during the meeting/webinar ⓘ

To have participants names anonymized in the recording, click off **Display participants' names in the recording**. This will not affect the live meeting, where names will be displayed however the participants display them.

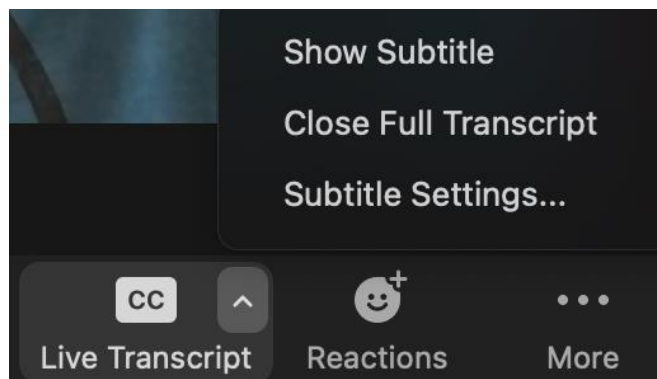
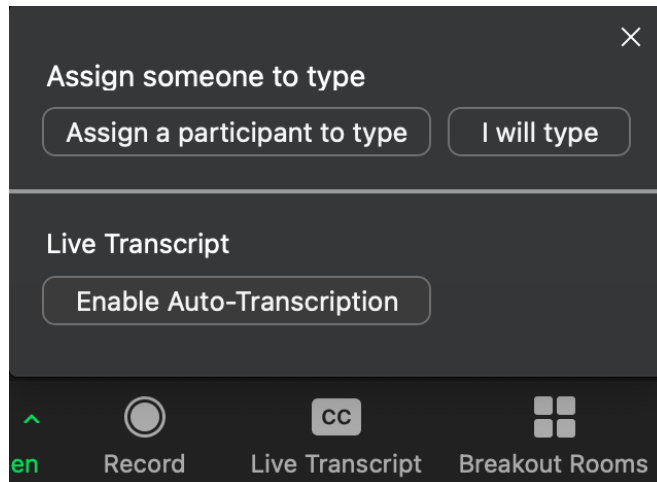
- c) Go to **In Meeting (Advanced)>Closed Captioning** and turn on **Enable live transcription service to show transcript on the side panel in-meeting**. This allows **Live Transcripts** to be turned on in-meeting for both the instructor and students viewing it.

**Closed captioning**  
Allow host to type closed captions or assign a participant/3rd-party service to add closed captions

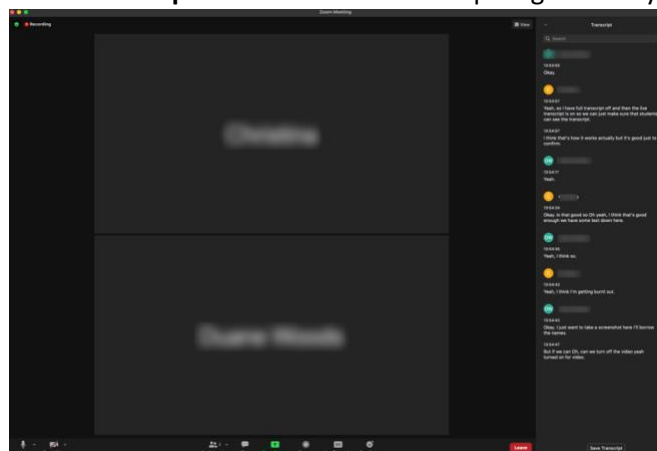
- ☐ Allow use of caption API Token to integrate with 3rd-party Closed Captioning services
- ☒ Enable live transcription service to show transcript on the side panel in-meeting

3) Start your Zoom session.

4) Click **Live Transcripts** in the bottom toolbar. You will first have to **Enable Auto-Transcription**.

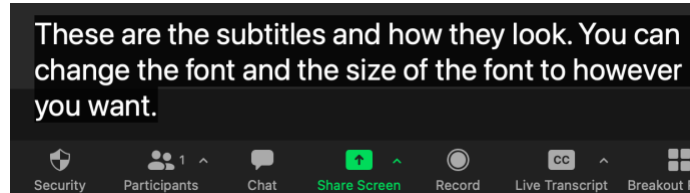


a. **View Full Script** will record the transcript organized by speaker in a sidebar, like below.



- b. When recording, **Show Subtitle** displays the transcript “burned” into the video at the bottom of the Zoom window. This means that Subtitles can be turned off during the live meeting, but they cannot be turned off in the final recording (if enabled live).

\*Note that transcripts/subtitles do NOT work in breakout rooms.



- 5) Click **Record**. Choose whether to **Record on This Computer** or **Record To The Cloud**.
- 6) When you are done recording, press **Stop**.
- 7) **End** the meeting (\*recorded files will not be generated until the meeting ends).
- 8) If you’ve saved it as a **local file**, a prompt will ask you to convert it. The files created will include:
  - a. **M4A** audio file
  - b. **MP4** video file
  - c. **M3U** file (ignore this file)
  - d. **TXT** file of the transcript (if transcripts are enabled in sfu.zoom.us)
- 9) If you’ve saved it to the **cloud**, the files created on the Zoom page in Canvas will be the following. These files on the cloud are only available to download by the instructor. The students will be able to play streaming versions of audio or video.
  - a. **M4A** audio file
  - b. **MP4** video file
  - c. **VTT** transcript file of closed captioning (\*only when Live Transcript is turned on by the instructor during the recording).
- 11) The MP4 and/or the M4A files can be edited and/or uploaded to Mediasite. The audio file is only needed if the visuals are not needed.

## Section 3: Alternative Recording Methods

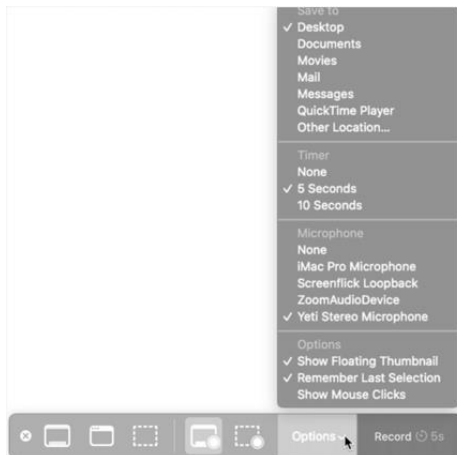
In you don't have access to the Internet, or if you prefer a different way of recording other than Zoom, both Macs and PC's have recording apps. Macs have [Screenshot](#) and PC's have the [Game Bar](#).

If you want to do any editing to your video, use one of the above recording methods and save it to your computer. Recommended editing software includes **Adobe Rush** (SFU-supported), **iMovie** (free on Macs) or **Camtasia** (\*must be purchased). Note that Mediasite offers some very limited editing through its **Web Editor** under **Edit Video**.

## Screen Recording on a Mac with the Screenshot app

**\*no internet needed**

- 1) Make sure you have Mac OS Mojave or a more recent OS.
- 2) Press **Shift + Command + 5**
- 3) On the small toolbar that pops up, choose **Record Entire Screen or Record Selected Portion** from the middle section (the first 3 options on the left are for single screenshot images).



- 4) Under **Options**, select your **Microphone** and where to **Save To**. An external microphone is recommended for better sound.

\*Note that system sounds from your computer cannot be recorded, such as sound from a video playing.

- 5) Press **Record**. A 5-second countdown will begin.
- 6) To stop recording, press **Command + Control + Escape**, or hit the **Stop** button that appears in the row of Status Menus on the top right of your Mac by the WiFi connection.

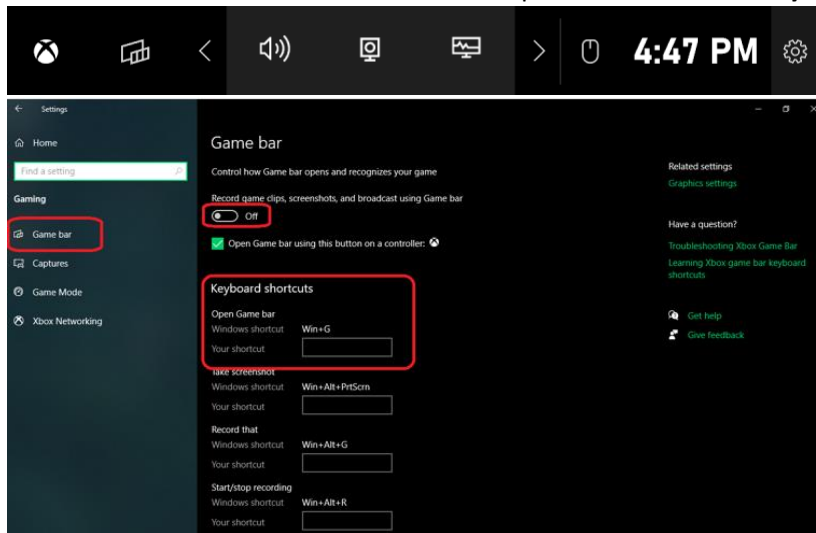


- 7) An **MOV** file will be created, which can then be edited and/or uploaded to Mediasite.

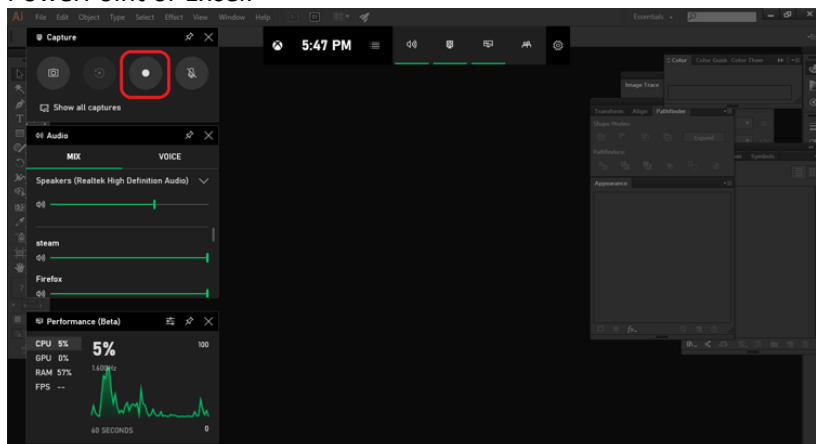
## Screen Recording on a Windows 10 PC with the Game Bar app

\*no internet needed

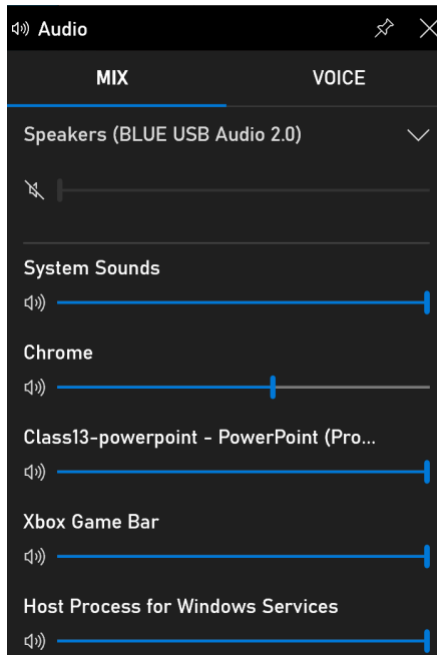
- 1) Search for the Game Bar in Windows 10 or press the **Windows key + G**.



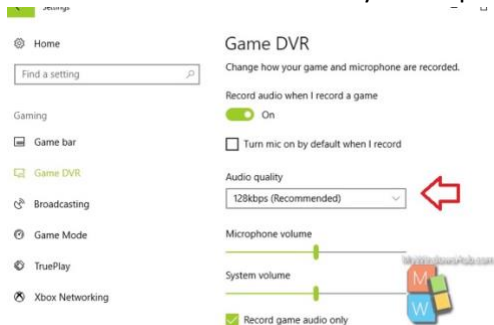
The Game Bar cannot record your Windows desktop, File Explorer, and certain Windows apps, but rather it must record a particular program must be selected, such as your browser, PowerPoint or Excel.



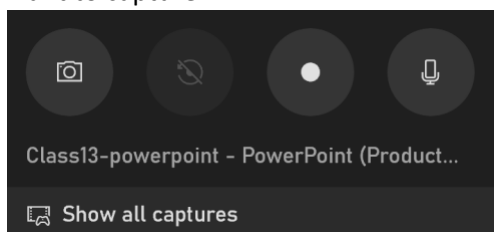
- 2) Select your microphone under **Audio** and then **Voice**, preferably an external one. You should turn your Speakers to off in the **Mix** part of the Audio section to avoid feedback, which can create a distorted or echoey recording.



\*Note that the internal microphone can often still sound bad, and even some external mics may sound tinny with Game Bar. To improve this, go to **Game DVR** and raise the kps bitrate under **Audio Quality**. Microphone and System volume can also be changed. However, some people have noted that the audio may not improve.



- 3) Open your program to record and press the **Record Button** in the **Capture** window. The Record button will not be activated until you have your browser or another program open that you want to capture.



- 4) An **MP4** file will be created in the **Gallery**, which can then be edited and/or uploaded to Mediasite.

## Section 4: Mediasite Procedures

Mediasite is SFU's streaming service for course videos. Videos can be recorded straight to Mediasite itself using the recording app, called **Mediasite Desktop Recorder** (older version on PC's) or **Mediasite Mosaic** (Mac and PC). Other videos from your computer can also be uploaded to Mediasite, whether it's been recorded from Zoom or Powerpoint or edited with software like iMovie or Rush.

It is *not* recommended to upload videos straight to Canvas as the large video files eat up too much space, and it is not a streaming service, meaning students need to download the videos to watch them. Files can be uploaded to **Vault** as a backup for students who are unable watch streaming services, but again, the files need to be downloaded to watch them.

Mediasite has three sections: [Recording with Mediasite Mosaic](#), [Uploading Your Own Videos to Mediasite](#), [Captioning in Mediasite](#) and [Embedding Your Mediasite Videos into Canvas](#).

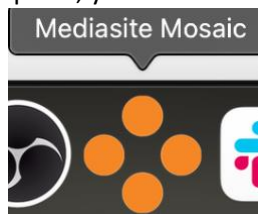
For procedures for recording with the older app called **Mediasite Desktop Recorder (MDR)** on PC's, go here: <https://www.sfu.ca/information-systems/services/mediasite/how-to-guides/record-your-desktop-with-mdr.html>

Further Mediasite information from IT Services can be found here: <https://www.sfu.ca/information-systems/services/mediasite/how-to-guides.html>

### Recording with Mediasite Mosaic

**\*Macs and newer PC's/Windows. Note that you must have an internet connection for Mosaic.**

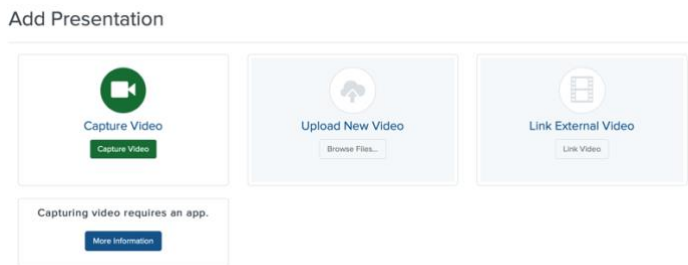
- 1) Download **Mediasite Mosaic** from the Windows Store or the Apple App Store: <https://support.sonicfoundry.com/Knowledge/Article/000004095>
- 2) Go to <https://stream.sfu.ca> and follow the steps below if you want to start on your Mediasite page. If you want to open the Mediasite Mosaic app directly, go straight to [Step 7](#). For either option, you must have an internet connection.



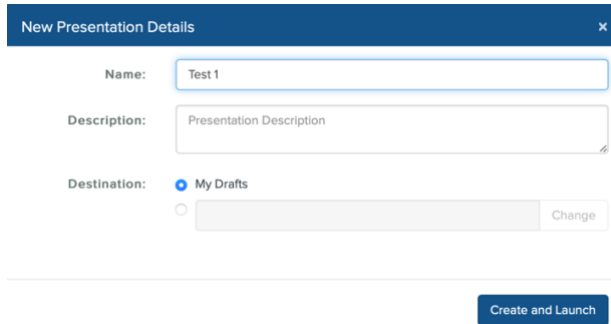
- 3) On the main page at <https://stream.sfu.ca>, press the **Add Presentation** button at the top



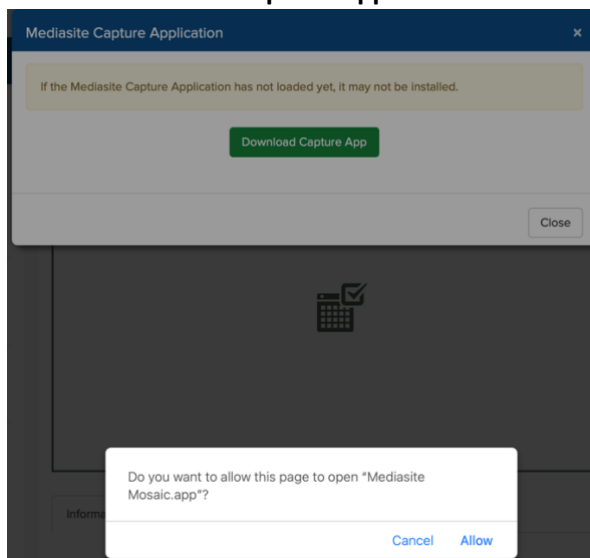
- 4) Select **Capture Video**.



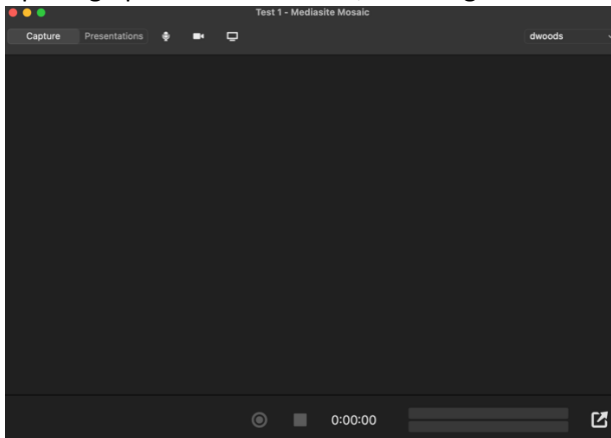
- 5) **Name** your video and add a **Description** (if needed). You can leave the **Destination** as My Drafts or choose another one. Press **Create and Launch**.

A form titled "New Presentation Details" with a close button (x). It contains three fields: "Name:" with a text input containing "Test 1", "Description:" with a text area containing "Presentation Description", and "Destination:" with a radio button selected for "My Drafts" and a "Change" button. At the bottom right is a blue "Create and Launch" button.

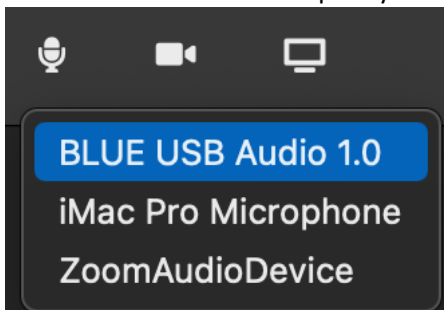
- 6) A pop-up will ask for permission to open Mediasite Mosaic. If you do not have Mosaic installed, click on **Download Capture App**.



- 7) The Mediasite Mosaic app will then open with the Capture window. \*If you start by directly opening up Mediasite Mosaic, then begin here.



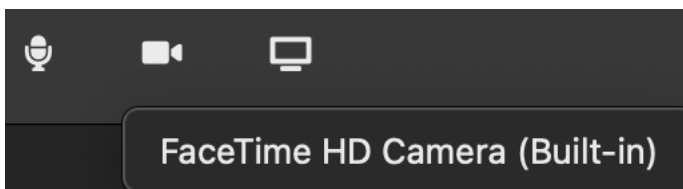
- 8) Choose your microphone under the microphone icon. An external microphone is generally recommended for better quality.



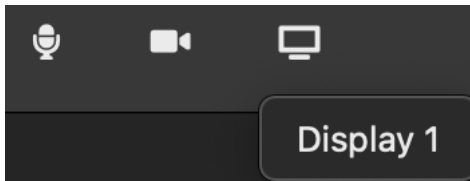
You should then be able to see your Audio Levels on the meter at the bottom of the app. Green will indicate a level that's too low, so try to stay in the mid-to-high yellow range. Stay out of the red when recording as it signifies distortion and unwanted "peaking".



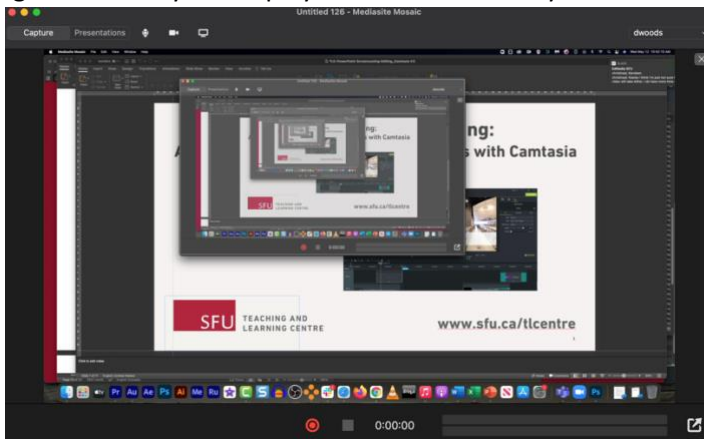
- 9) Choose your camera. Most computers will only have one choice, unless you have another webcam.



- 10) Choose your display (monitor) to be captured. If you have dual monitors, make sure you choose the one that you want captured. Note that you must record your entire screen and not just a selected portion or a particular program.



Choosing your own monitor will create an image of your screen seeming to repeat into infinity; ignore this as your display will record normally.



- 11) At the bottom of the app are the controls for Record and Stop, with the timecode listed beside it. Press the red Record button when you are ready to record. A 3-second countdown will occur and the app will minimize itself for the recording.



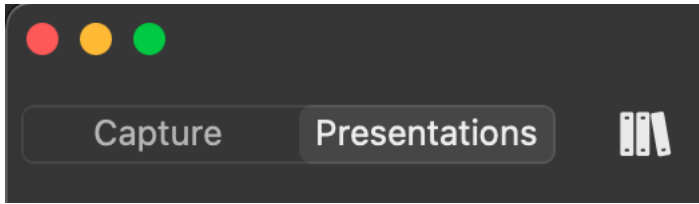
- 12) When you are done recording, click the Mediasite icon (4 orange dots) at the top of your Mac in the Status Menu.



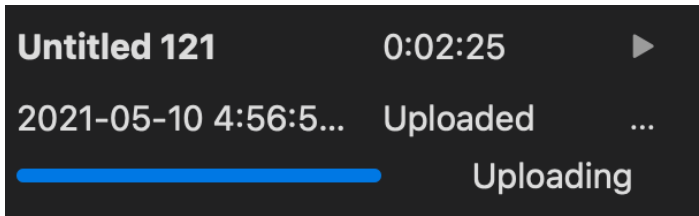
- 13) The app will reappear with the paused timecode blinking in red. You can choose to continue recording by pressing Record again, where it will keep recording as the same file, or you can press Stop, and it will immediately start uploading to Mediasite.



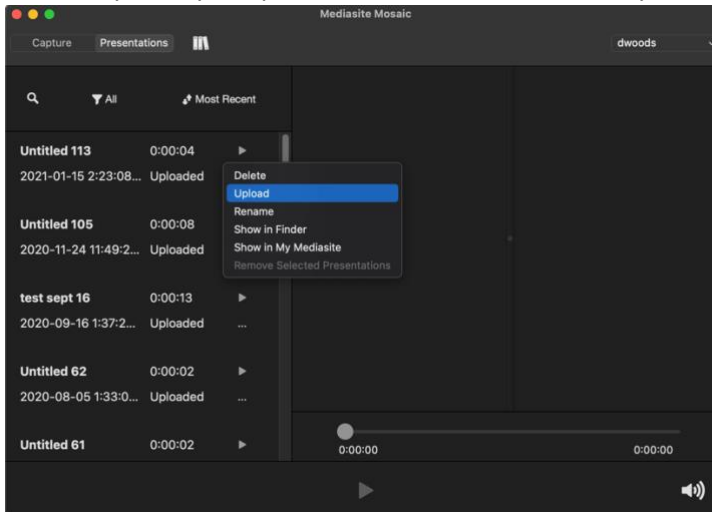
- 14) If you pressed Stop, click Presentations in the top left corner, which will show you your recordings.



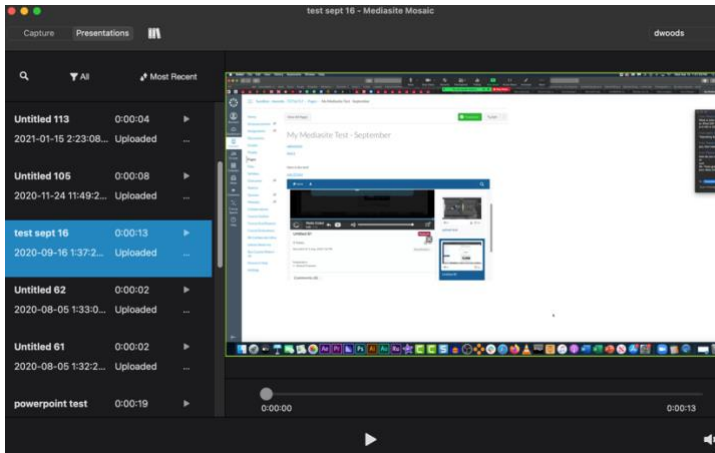
- 15) Under Presentations, you can see the progress of your upload to Mediasite. Upload times have greatly increased in early 2021, so a video 2-3 minutes long should take seconds to upload.



- 16) If you click on the ellipsis (3 dots) on any of the Presentations, you'll find a drop-down menu that allows you to **Delete** it, **Upload** it (\*it's currently set to automatically upload, which can be changed in Settings), **Rename** it, **Show in Finder** or **Show in My Mediasite**. Show in My Mediasite will take you to you uploaded video on Mediasite on your browser.



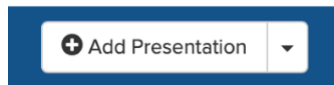
- 17) You can view any of your previous videos by clicking on it and pressing **Play** at the bottom. Your uploaded videos will also appear at <https://stream.sfu.ca>.



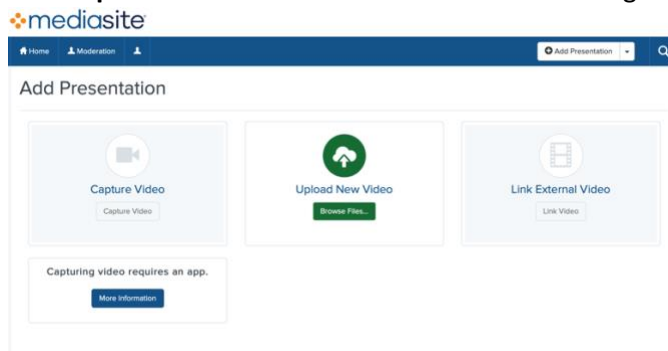
## Uploading Your Own Videos to Mediasite

\*Without captions

- 1) Go to <https://stream.sfu.ca>.
- 2) Press the **Add Presentation** button at the top



- 3) Select **Upload New Video** and **Browse Files** and navigate to the file to upload.



- 4) In the **New Presentation** popup, name your video and add a description if you want. Press **Create Presentation**.

New Presentation Details

Name:

Course Video 12

Description:

Video for Module 12

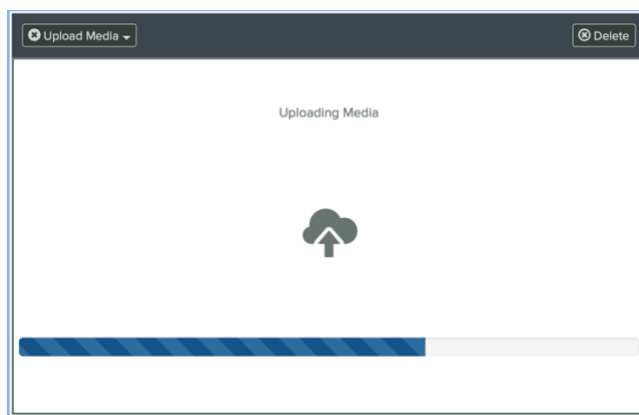
Destination:

☒ My Drafts
 

Change

Create Presentation

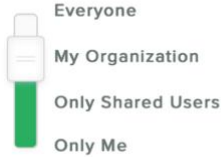
The upload progress bar will look like this, but note that it doesn't give you a time remaining or a percentage uploaded.



## Embedding Your Mediasite Videos into Canvas

- 1) The first thing you need to do in Mediasite before embedding is changing **Who can View**, as the default is set to Only Me and no one else can view it. **My Organization** is the easiest method while still being secure.
  - a. **Everyone:** anyone who gets a link to the video will be able to view it.
  - b. **My Organization:** anyone with an SFU Computing ID will be able to view it. However, since Mediasite is meshed with Canvas, students in the course may not have to enter their ID as they already did it to get into Canvas.
  - c. **Only Shared Users:** a mail list of users emails must be compiled.
  - d. **Only Me:** only the Mediasite account's owner can view it.

WHO CAN VIEW? ?



2) Go to Canvas

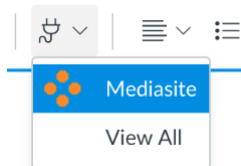
3) Add a Page or add to an existing Page.



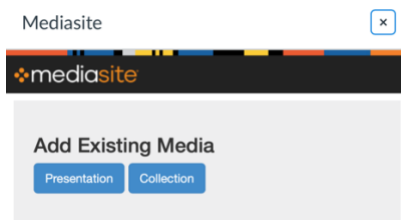
4) Press **Edit** to open up the Editor.



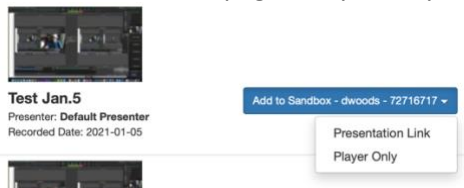
5) Select the “**plug**” widget in the toolbar and press **Mediasite** from the drop-down.



6) **Add Presentation** for a single video, **Add Collection** for a Channel for a playlist of your videos from Mediasite (\*Channel must first be created in Mediasite).



7) When you click on the video you want, you have the choice of **Presentation Link** or **Player Only**. **Presentation Link** will insert blue hyperlinked text into Canvas to the video, which will take the viewer to another page to watch it. **Player Only** will embed the video in a player and stream it on that same page. Player Only is often preferred for keeping everyone on one Page.



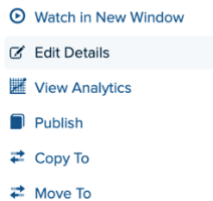
8) After your video is embedded, press **Save**.

# Captioning in Mediasite

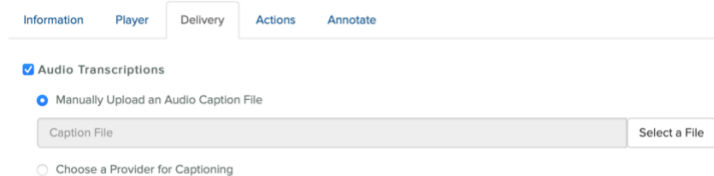
**\*When captions are a separate text file and not “burned in” the video**

1) Open your video in Mediasite.

2) Go to **Edit Details**.



3) Go to the **Delivery** tab and click **Audio Transcription**.



4) Click **Select a File** and upload your captioning file. Mediasite only accepts the caption formats of Synchronized Accessible Media Interchange (**SAMI**), SubRip (**SRT**), and Distribution Format Exchange Profile (**DFXP**). SRT is the most popular format for this.

\*If you record in Zoom, it creates captions in a **VTT** format. If you want captions that are not burned into the video, the caption file needs to be uploaded separately. In order to upload your Zoom VTT file to Mediasite, it would need to be converted into one of the three above formats (usually SRT) using a converter, such as the following: <https://subtitletools.com/convert-to-srt-online>. Note that using a free online tool could pose privacy risks for information in your video. Then follow the caption uploading instructions above.

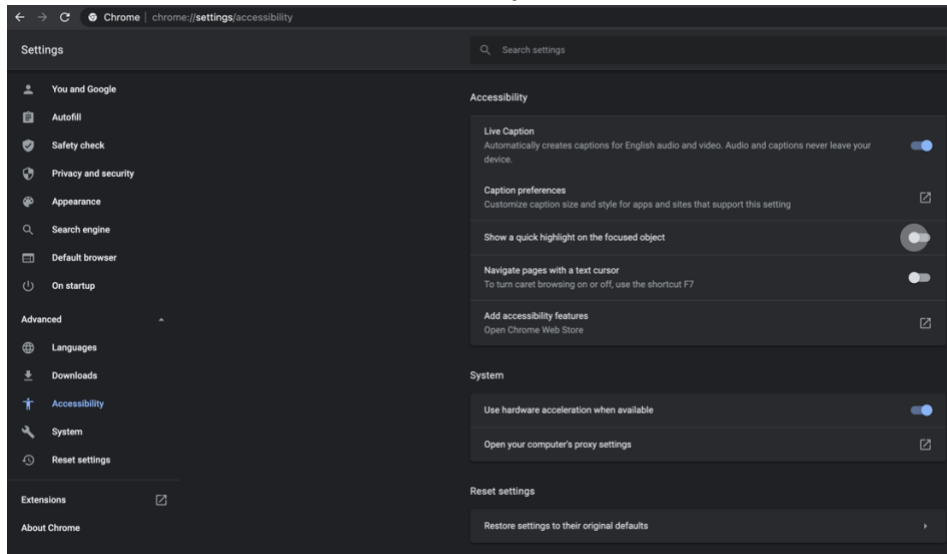
5) Press **Save**.

## Section 5: Captioning Procedures With Chrome

The simplest way to provide accessibility and transcripts may be through Google Chrome. This doesn't require any steps in Zoom or Mediasite to create transcripts or subtitles, nor does it require any steps to save those files, convert them, or upload them. It simply requires the viewer of the video to toggle on a setting in Google Chrome.

### Accessibility and Captioning in Google Chrome

- 1) Open Chrome
- 2) Go to **Preferences>Advanced>Accessibility**



- 3) Toggle **Live Caption** to on.
- 4) Watching any video online with any streaming video, whether it's Mediasite, from the cloud for Zoom, or YouTube, the captions should now appear at the bottom of the video or page.

\*Note that the captioning will not be perfect as errors in the text will occur.