

The Royal  
Conservatory®



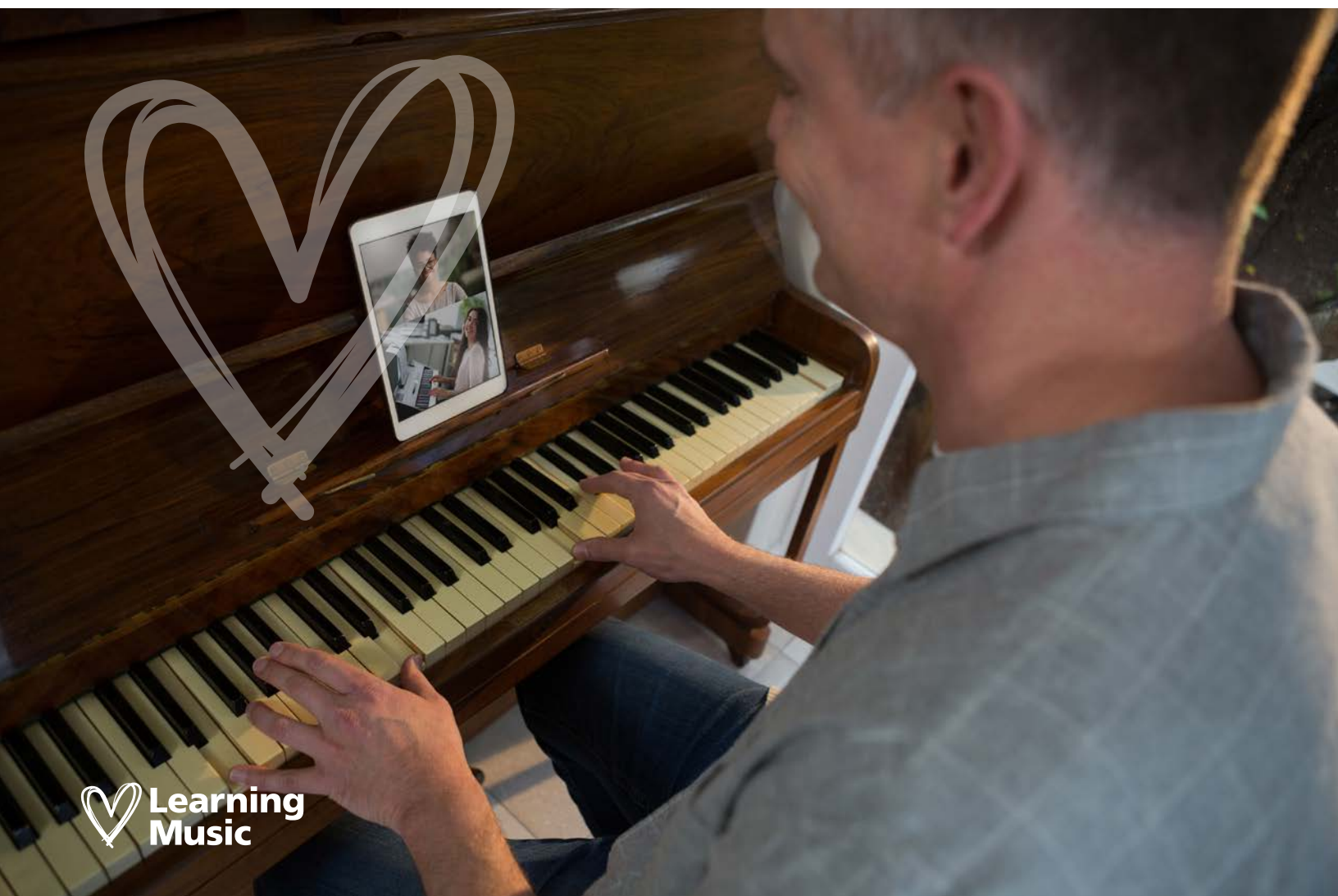
# Teaching Music Online **Technology Guide**

# Contents

Selecting a video calling service .....	4
Zoom .....	4
Google Hangouts.....	4
Skype.....	5
FaceTime .....	5
Quick guide to start teaching with Zoom .....	5
Checking your internet speed .....	6
Scheduling and inviting students to your online lessons.....	6
Audio quality .....	6
Recording performances in advance.....	7
Video quality and recording .....	7
Mirror video.....	8
Seeing the speaker.....	8
Sharing of materials.....	9
Recording .....	10
Resources .....	10
Resources to help you get started with Zoom.....	10
Advanced Audio Settings in Zoom .....	11
Advanced video and screen sharing in Zoom: .....	11
Recommended USB webcam and microphones:.....	12
Other services .....	12

Online music lessons allow you the opportunity to connect with students anywhere, especially if they are not able to meet in person. It also enables you to interact with your students in new and engaging ways using digital tools and resources. This guide will help you get started with the technology. All you need is a good internet connection, a modern computer, a tablet or phone with built-in webcam and microphone, and your teaching spirit!

Ideally, you would want to have access to both your instrument and a working computer (laptop/desktop) in the same area for your online lesson. A laptop, tablet, or phone provides a great deal of flexibility because you can easily move them around to show your instrument when you're performing. Otherwise, an external webcam plugged into your desktop will do the trick and you can move it around when necessary.



## Selecting a video calling service

If you're teaching an instrument, it's important that both you and your students can see and hear each other. There are many video calling services that you can use to achieve this effect, including Google Hangouts, Skype, FaceTime, and Zoom. All of these are free and reliable if you have a decent internet connection. At The Royal Conservatory, most of our faculty members use Zoom, but we recognize that other services are available if you're teaching group classes and don't want to pay for Zoom. Below are some pros and cons of popular video calling services to help you get started:



### Zoom

- Increasingly popular as a tool for online education
- "Music mode" audio settings
- Reliable connection
- Students do not need an account to join
- Option to record lessons for playback
- Option to share screen
- Available on computer, tablet, and mobile devices
- Unlimited one-to-one calls and 40-minute limit on group calls (3 people or more) unless you're a paid user



### Google Hangouts

- Free with a Google account and integrated with Google Calendar and Gmail (easy to schedule and invite students if you're already using Gmail)
- Up to 25 people in a group call
- Students do not need an account to join
- Option to share screen
- Available on computer, tablet, and mobile devices
- No option to record lessons unless you're a G Suite Enterprise or G Suite Enterprise Education user



### Skype

- A very popular video calling service
- Up to 50 people in a group call
- Students do not need an account to join
- Available on computer, tablet, and mobile devices
- Option to share screen
- Option to record lessons for playback



### FaceTime

- Up to 32 people in a group call
- No link or account required, just call phone number
- No option to record lessons
- No screensharing option
- Only available on Apple devices (not applicable to Android and other users)

We recommend going with the app that you are most comfortable with. Test a couple of them out with a friend or family member if necessary. Also, check out the **Resources** section of this document for links to articles, videos, and tutorials to help you get started with Zoom. In this guide, we will reference Zoom for Education since this is what our faculty members use to teach group and private lessons.

## Quick guide to start teaching with Zoom

- Sign up for a free account at [zoom.us/signup](https://zoom.us/signup)
- Log in to your account at [zoom.us](https://zoom.us), go to **Meetings**, then select **Personal Meeting Room**
- Beside Invite Link, click **Copy Invitation**, then click **Copy Meeting Invitation** to copy the instructions on how to join your online meetings.
- Schedule lessons, send the copied invitation to your students, and tell them to click the Join URL when it's time to start their online lesson.

- 10-15 minutes before the lesson starts, click **Start Meeting** from your Personal Meeting Room from the Zoom website or paste the Join URL in your web browser. Zoom will prompt you to download and run their app if it's your first time using Zoom
- Select **Join with Video** and connect your audio so students can see and hear you (audio and video controls are located at the bottom left of the Zoom window)
- Admit your student into the room after they have joined. Take a few minutes to make sure you both hear and see each other
- Start teaching!

## Checking your internet speed

The quality of your video call experience depends on your internet bandwidth as well as your student's. The minimum internet speed required for online video calling is **1.5 Mbps** (up/down). Your internet is most likely much stronger than that. If possible, connect your computer to your router using an Ethernet cable to avoid a drop in Wi-Fi connectivity. You can check your internet speed at [fast.com](https://fast.com).

## Scheduling and inviting students to your online lessons

Inviting students to your online lessons could be as simple as sending them or their parents/guardians an email or text message with the lesson date and time, as well as the Join URL and Meeting Password generated by Zoom.

Students do not need to have a Zoom account in order to join your Zoom lessons. They will automatically be put in a waiting room when they join, so you will have to admit them into the virtual lesson. You will be able to see and admit those who are waiting from the **Participants** list.

## Audio quality

The biggest challenge with teaching music online is achieving a decent quality for instrument sounds. Zoom allows you to preserve **Original Sound** which gives listeners a sound quality that is very close to what you are hearing on your end without Zoom's echo cancellation and audio-enhancing features. If you're starting to hear echoes (**Original Sound** takes longer to process, you might hear your voice coming back from your student's microphone), we suggest turning on **Original Sound** when you play and off when you're speaking.

You can use your device's built-in microphone (mic) or join your lesson from your smartphone to use that mic if necessary. An external mic can enhance your audio. You will find suggestions in the **Resources** section if you are looking for an external mic.

If you have multiple microphones connected to your device, you will see options to switch between them in Zoom and other video calling services.

## Recording performances in advance

Another option for you and students to share performances is to record them in advance with your phone or camera and share it via email, Dropbox, Google Drive, or YouTube (as a private or unlisted video). You may find this helpful if you're struggling to hear each other's performances during the lesson time.

## Video quality and recording

We recommend hosting your online lessons from your computer or a large tablet if a computer is not available. Hosting from a smartphone is possible but it may be difficult to see your students' performance since the video is smaller on a smartphone.

Many modern laptops come with a built-in camera. You can use this or connect a USB webcam or external camera for clearer videos. You can also use your smartphone to provide that second angle if you want to show your keyboard or a different angle of your performance. You may want to get a phone tripod or stand to hold up your phone. If you don't have something like that, you can also get creative with large books or music stands.

If you have a second webcam or camera connected to your device, you can easily switch between them by clicking on the up arrow beside Zoom's video icon.

You can also join your Zoom online lesson on your extra tablet or smartphone to better show your instrument. You will need to install the Zoom app on those devices in order to join. The app is available in your device's app store.

A tablet or phone can also be used to share physical documents when digital files aren't available. If you have an iPhone/iPad, you can share those screens in Zoom. To do this in Zoom, select **Share Screen > iPhone/iPad**, follow instructions to connect your iPhone/iPad, then turn on the iPhone/iPad's camera to achieve this effect. To do the same with Android and other devices, just join your own Zoom session from these devices.



**Tip:** If you're joining the same meeting on your tablet or smartphone, skip the audio connection to avoid echo, especially if you're not wearing a headset. If you'd rather use the microphone on your tablet or phone, mute your mic on the first device and either connect a headset to it or turn the volume down to 0. You'll still be able to hear and speak from the tablet or phone.

### Mirror video

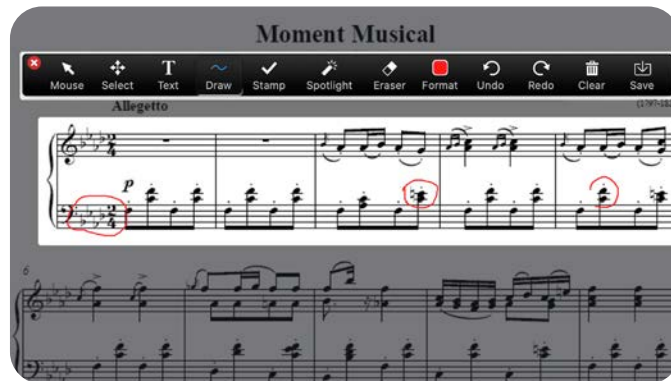
In Zoom's video settings, there's an option to mirror your camera in case you want to show your instrument on the right or left side. To do this, click the up arrow beside your video icon and select Video Settings. Then, check/uncheck mirror video in the pop-up Settings window.

### Seeing the speaker

Zoom also supports gallery view and speaker view.

- **Speaker view** enlarges/shows the video of the person speaking. As a host, you can spotlight yourself or another person to always show their video regardless of who is speaking. This is helpful if you're teaching a group class and you want everyone to always see you.
- **Gallery view** shows all videos equally on screen and highlights the speaker with a green rectangle.



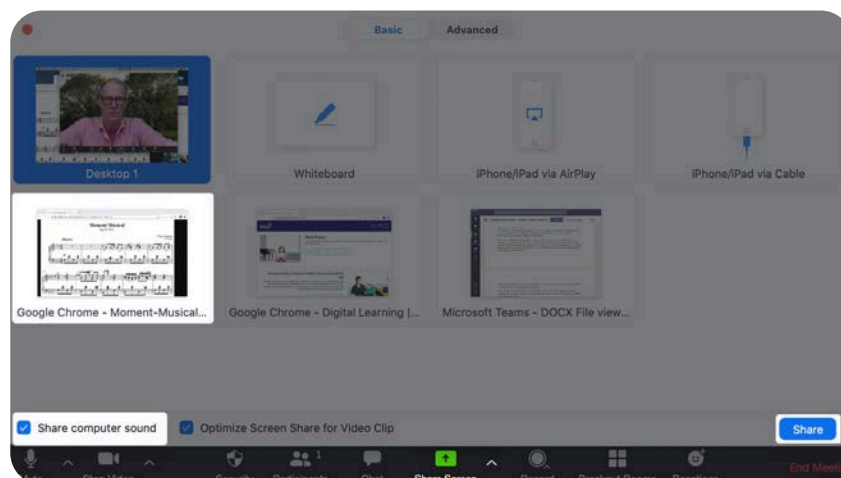


**Annotate** – Anything that you share on screen can be annotated by you and by your students if you allow them to.

## Sharing of materials

Zoom, Skype, and Google Hangouts all support screen sharing. This feature allows you to share your entire screen or select a specific application to share with your students and they can do the same with you. Screen sharing is helpful when you want to show something that you have opened on your computer, tablet, or phone such a video, musical scores, notation services, worksheets, etc.

If you're hosting on a computer, click **Share Screen** on your Zoom toolbar, pick an entire screen or a specific item and click **Share**. Don't forget to check off "Share computer sound" if you want to share audio. If you'd like to share an app on your iPhone/iPad, you can mirror those screens (i.e. show those devices' screens) by clicking **Share Screen**, select **iPhone/iPad** and follow the 3-step instructions that Zoom provides. You can also share files by emailing them to students ahead of time. Screen sharing is also supported on mobile devices.



## Recording

You can record your online lessons for playback on Zoom and Skype. This can be helpful for students to review the lesson, their posture, and their performance. We highly recommend obtaining agreements from students and parents/guardians before recording to avoid any privacy issues.

## Resources

If you're brand new to Zoom or any of these video calling services, we highly recommend checking out the following resources (articles and YouTube videos) to acquaint yourself with the technology. You can also find many of these steps-by-step instructions by typing your questions into Google or visiting the support page for each app.



Click the hyperlinks below to open the resources in your web browser.

### Resources to help you get started with Zoom

Before you dive into learning how to use Zoom, check out this YouTube video called "[The newbie's guide to teaching online music lessons](#)" uploaded by Contrabass Conversations to see an instructor's comparisons of Zoom versus other services, as well as video and audio examples on different devices and microphones.

Next, this article takes you to a page on Zoom website called "[Quick start guide for new users](#)".

This article covers:

- Signing up and activating your Zoom account
- Signing into your Zoom account on the web
- Updating your profile
- Scheduling your first meeting
- Downloading the Zoom client
- Starting a test meeting
- Starting your first meeting as the host
- Inviting others to join your meeting
- Joining another user's meeting

Zoom also provides video tutorials on how to use their service. Watch all of them at [Zoom Video Tutorials](#) web page or see individual videos using the following links:

- [Join a Meeting](#)
- [Scheduling meetings](#)
- [Scheduling Recurring Meetings](#)
- [How do I invite others to join a meeting?](#)
- [Meeting Controls](#)
- [Scheduling a Meeting with Google Calendar](#)
- [Scheduling a Meeting with Outlook](#)
- [Recording a Zoom Meeting](#)
- [Joining and Configuring Audio and Video](#)
- [Sharing Your Screen](#)
- [Switching between gallery and speaker view in Zoom \(article\)](#)

### Advanced audio settings in Zoom

We talked about the **Original Sound** feature that you can turn on to allow your students to hear you better. Below are instructions on how to turn that feature on:

- [Enable Original Sound in Settings](#) (see section for **User** if you're the only person in your account)
- [Turning on Original Sound](#) (Zoom in "Music Mode")

### Advanced video and screen sharing in Zoom:

- [Use Your Phone as a 2nd Camera in Zoom \(YouTube\)](#)
- [iOS Screen Sharing with the Zoom Desktop Client](#)

### **Recommended USB webcam and microphones:**

- Logitech C920 HD Pro USB 1080p Webcam (has built-in dual stereo mics with automatic noise reduction)
- Blue Yeti USB Microphone (multi-pattern mic)
- Blue Snowball iCE USB Microphone
- Affordable USB microphone

### **Other services**

- <https://support.zoom.us>
- <https://support.skype.com>
- <https://support.google.com/hangouts>



**The Royal  
Conservatory**<sup>®</sup>  
The finest instrument is the mind.

