

Online Training Program Technology Requirements

The College of Good Hope Online Training Program utilizes Zoom video conferencing as the online remote classroom environment. The minimum technology needed to participate in and complete the training program is described below, including computer/tablet/mobile devices; Operating Systems and other software; Internet connection. For additional information and instructions on using Zoom, please see the Zoom Getting Started page located [here](#).

System Requirements for PC, Mac, and Linux

This article covers:

- System requirements
- Supported operating systems
- Supported tablet and mobile devices
- Supported browsers
- Processor and RAM requirements
- High DPI support
- Bandwidth requirements
- HD camera suggestions
- USB speakerphone and microphone
- Other peripherals

System requirements

- An internet connection – broadband wired or wireless (3G or 4G/LTE)
- Speakers and a microphone – built-in or USB plug-in or wireless Bluetooth
- A webcam or HD webcam - built-in or USB plug-in
- Or, a HD cam or HD camcorder with video capture card

Supported operating systems

- macOS X with macOS 10.7 or later

- Windows 10
Note: For devices running Windows 10, they must run Windows 10 Home, Pro, or Enterprise. S Mode is not supported.
- Windows 8 or 8.1
- Windows 7
- Windows Vista with SP1 or later
- Windows XP with SP3 or later
- Ubuntu 12.04 or higher
- Mint 17.1 or higher
- Red Hat Enterprise Linux 6.4 or higher
- Oracle Linux 6.4 or higher
- CentOS 6.4 or higher
- Fedora 21 or higher
- OpenSUSE 13.2 or higher
- ArchLinux (64-bit only)

Supported tablet and mobile devices

- [Surface PRO 2 or higher running Win 8.1 or higher](#)
Note: For tablets running Windows 10, they must run Windows 10 Home, Pro, or Enterprise. S Mode is not supported.
- [iOS and Android devices](#)
- Blackberry devices

Supported browsers

- Windows: IE 11+, Edge 12+, Firefox 27+, Chrome 30+
- Mac: Safari 7+, Firefox 27+, Chrome 30+
- Linux: Firefox 27+, Chrome 30+

Processor and RAM requirements

	Minimum	Recommended
Processor	Single Core 1Ghz or Higher	Dual Core 2Ghz or Higher (i3/i5/i7 or AMD equivalent)
RAM	N/A	4Gb

Notes:

- Dual and single core laptops have a reduced frame rate when screen sharing (around 5 frames per second). For optimum screen sharing performance on laptops we recommend a quad core processor or higher.
- Linux requires a processor or graphics card that can support [OpenGL 2.0](#) or higher.

High DPI support

- High DPI displays are supported in Zoom version 3.5 or higher

Bandwidth requirements

The bandwidth used by Zoom will be optimized for the best experience based on the participants' network. It will automatically adjust for 3G, WiFi or Wired environments.

Recommended bandwidth for meetings and webinar panelists:

- For 1:1 video calling:
 - 600kbps (up/down) for high quality video
 - 1.2 Mbps (up/down) for 720p HD video
 - Receiving 1080p HD video requires 1.8 Mbps (up/down)
 - Sending 1080p HD video requires 1.8 Mbps (up/down)
- For group video calling:
 - 800kbps/1.0Mbps (up/down) for high quality video
 - For gallery view and/or 720p HD video: 1.5Mbps/1.5Mbps (up/down)
 - Receiving 1080p HD video requires 2.5mbps (up/down)
 - Sending 1080p HD video requires 3.0 Mbps (up/down)
- For screen sharing only (no video thumbnail): 50-75kbps
- For screen sharing with video thumbnail: 50-150kbps
- For audio VoiP: 60-80kbps
- For Zoom Phone: 60-100kbps

Recommended bandwidth for webinar attendees:

- For 1:1 video calling: 600kbps (down) for high quality video and 1.2 Mbps (down) for HD video

- For screen sharing only (no video thumbnail): 50-75kbps (down)
- For screen sharing with video thumbnail: 50-150kbps (down)
- For audio VoiP: 60-80kbps (down)

HD camera suggestions

- [Aver CAM340](#), [Aver CAM520](#)
- [Logitech C930e](#), [Logitech Brio](#), [Logitech PTZ Pro](#)
- [Huddly](#)
- [VDO360 PTZ HD Camera](#)
- [Vaddio Clearview USB](#)
- [Microsoft HD Webcams](#)
- [Hovercam Solo 5 Document and Webcam](#)

USB speakerphone and microphone

- [Jabra Speak 510](#)
- [Jabra Speak 710](#)
- [Jabra Speak 810](#)
- [Jabra USB Speakerphones](#)
- [Logitech P710e](#)
- [Plantronics Headsets](#)
- [Plantronics Calisto 600](#)
- [Phoenix Quattro3](#)
- [Revolab Fusion Wireless Microphones](#)
- [Revolabs UC500](#)
- [Shure Wireless Conferencing System](#)
- [Voice Tracker Array Microphones](#)
- [Yamaha YVC-100](#)
- [Yamaha YVC-100](#)
- [MXL Microphones for Conferencing](#)

Other peripherals

Note: Devices support vary with systems. Please test them first.

- [Magewell HDMI capture](#) (Mac or Win)
- [Startech Composite/SVideo to USB](#) (Win)
- [Blackmagic Design Intensity Extreme](#) (Mac)

System Requirements for iOS, iPadOS, and Android

This article covers:

- Equipment
- Supported Operating Systems
- Supported Browsers for Web Start
- Processor Requirement
- Bandwidth Recommendations
- Bluetooth Speakerphones and Microphones

Equipment

- An Internet connection – WiFi (a/g/n/ac) or wireless (3G or 4G/LTE)
- (Optional) Bluetooth wireless speakers and microphone

Supported Operating Systems

- iOS 7.0 or later:
 - Send and receive video using front or rear camera
 - iPhone 4 or later, iPad Pro, iPad Mini, iPad 2 or later, iPod touch 4th Generation, iPhone 3GS (no front facing camera)
- iPadOS 13 or later
- Android 4.0x or later
- Kindle Fire HD

Supported Browsers for Web Start

- iOS/iPadOS: Safari5+, Chrome
- Android: Webkit (default), Chrome

Processor Requirement

- Any 1 Ghz single core processor or better (non-Intel)

Bandwidth Recommendations

The bandwidth used by Zoom will be optimized for the best experience based on the participants' network. It will automatically adjust for 3G or WiFi

Recommended bandwidth over WiFi:

- For 1:1 video calling: 600kbps (up/down) for high quality video and 1.2 Mbps (up/down) for HD video
- For group video calling: 600kbps/1.2Mbps (up/down) for high quality video. For gallery view: 1.5Mbps/1.5Mbps (up/down).

Bluetooth Speakerphones and Microphones

- [Jabra Speak 510](#)
- [Logitech P710e](#)
- [Plantronics Calisto 620](#)