



Technical requirements for accessing online courses:

Operating System	Windows XP–Windows 10, Mac OS X 10.8 –10.11
Processor	Intel Core 2 or Pentium 4, 2-GHz or higher
Memory	2 GB of RAM or higher
Browser	Browser with pop-up blocker disabled: Google Chrome v39 or later, Mozilla Firefox v34 or later, Internet Explorer v8 or later, Microsoft Edge, Apple Safari v6 or later.
Plug-ins	Acrobat Reader [Download from Adobe] Flash Player [Download from Adobe]
Internet	Required, at least with 2 Mbps download and 2 Mbps upload speed
Printer	Access to graphics-capable (inkjet or laser printer)
Sound Card / Speakers	Required.
Monitor/Video Card	15" monitor; SVGA or better (capable of at least 1024 X 768 resolution, 16-bit graphics)

Zoom Webinar requirements:

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

- Mac OS X with MacOS 10.7 or later
- Windows 10
- 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 running Win 8.1
- Surface PRO 3 running Win 10
- iOS and Android devices
- Blackberry devices

Supported Browsers

- Windows: IE7+, Firefox, Chrome, Safari5+
- Mac: Safari5+, Firefox, Chrome
- Linux: Firefox, Chrome

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

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 1.3 Mbps (up/down)
 - Sending 1080p HD video requires 2.8 Mbps (up/down)
- For group video calling:
 - 600kbps/1.2Mbps (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

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
- VTEL HD4000PTZ Camera
- Vaddio Clearview USB
- Microsoft HD Webcams
- Hovercam Solo 5 Document and Webcam

USB Speakerphone and Microphone

- Revolabs UC500
- Jabra Speak 510
- Clearone Chat 150
- Logitech P710e
- Plantronics Calisto 600
- Phoenix Quattro3
- Voice Tracker Array Microphones
- Yamaha PSP-20UR
- Yamaha YVC-100
- Jabra USB Headphones
- Plantronics Headsets
- Revolab Fusion Wireless Microphones
- Shure Wireless Conferencing System
- MXL Microphones for Conferencing