A) Maximizing internet bandwidth at home (*plus tips for slow internet connections in italics*)

1. Use the best Internet connection available
   a. Wired connections are better than wireless (WiFi or cellular) connections.
      i. Connect your computer directly to your router via ethernet cable, if possible.
   b. WiFi connections are better than cellular (3G/4G/LTE) connections.
      i. If you connect using wireless, use the 5G network. If your home router has this capability, it will label the wireless network as “5G”. You may need an AC wireless network adapter on your computer to connect to 5G networks. Macs have this technology built-in.
   c. Close unneeded applications on your computer.
      i. Other applications may take up bandwidth
      ii. Turn off streaming services if not used (Hulu, Netflix, YouTube, iTunes, etc).
      iii. Turn off file synchronization applications if not used (DropBox, iCloud, etc).

2. Use the best available device
   a. When possible, always use a desktop or laptop computer over a tablet or mobile device
   b. Use your iPhone headset or AirPods (if available) for better quality microphone and sound.
   c. Use a noise canceling microphone if available.

3. Mute your microphone when you're not speaking, and ask your attendees to do the same.
   a. Zoom reserves a portion of your internet connection for audio to allow everyone to speak at any time.

4. Mute your video if you do not need it.
   a. Zoom reserves a portion of your internet connection for video. If the instructor approves, ask students to start their video only when needed.

5. Disable HD webcam video.
   a) Your HD webcam may offer 1080p and 720p video streaming. Instructors and presenters should always use 1080p. Students can set webcams to use 720p

B) Lighting

1. Find a location where there is plenty of light on your face, and normal light behind you. Avoid light from behind, which creates shadows on your face.

2. Adjust the lighting so that it is evenly dispersed at your location. Avoid light from the side, which creates shadows on your face.
3. Use a background image if desired
   a. This will eliminate some lighting problems.
   b. JHU offers some default backgrounds here.
   c. If you cannot load a background, your computer or internet connection is probably underpowered. Apply the low bandwidth tips, then try to re-load your background

C) Scheduling
1. Plan ahead 5-15 minutes for Zoom meetings. Login before your meeting time starts to ensure that everything is working OK.

2. After you login, share your presentation on screen to make sure that it looks OK. Ask the participants if the presentation can be seen and read.

3. If your class has a recurring meeting time, create the recurring Zoom meeting, and then send a single link to students. You can also post the link in Blackboard. If you are generating a recurring Zoom meeting link, you should use the same computer where you keep your calendar
   a. Zoom needs your calendar to create the recurring appointment.

D) Settings
1. Zoom has a multitude of settings.
   a. Some of the most important settings on your local computer - see page 3.
   b. Some of the most important account settings on the web - see page 4.

E) Recording
1. You can record to your local computer, or to the cloud. We recommend that you record to the cloud.

2. JHU has a new feature that allows you to record directly into your Panopto course shell.
   a. Instructions are pending, see https://irc.jhu.edu/aap-resource-groups/

3. Panopto has a lightweight video editor that will allow you to edit your videos.

F) Help
1. Zoom has a wealth of online videos, this 10 minute video shows you everything
   a. https://www.youtube.com/watch?v=ygZ96J_z4AY

2. Please see Video Layouts when screen sharing
   https://support.zoom.us/hc/en-us/articles/360034188592-Video-layout-options-while-screen-sharing
General Settings

Open Zoom, login, and select the GEAR to enter SETTINGS

Select GENERAL

Check all of the boxes as seen in the image below

Video Settings

Open Zoom, login, and select the GEAR to enter SETTINGS

Select VIDEO

Check all of the boxes as seen in the image below
**Profile Settings**

Open Zoom, login, and select the GEAR to enter SETTINGS

Select PROFILE. A new web browser window will open for your Zoom account.

- Add a PHOTO
- Make sure your local TIME ZONE is correct

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For technical help, please email technology@jhuaap.atlassian.net for assistance.

Composed by the AAP IT Help Desk, revised 8/17/20