Teaching with Zoom

Zoom offers several features to make meetings and classes more interactive. These include:

- **Annotation**
  - **Why**
    - Annotation allows you to:
      - Mark up an image or document to highlight key points.
      - Use a virtual whiteboard to create a diagram on the fly.
      - Make your presentation more dynamic.
      - Explain a concept visually.
  - **How**
    - Share your screen and click the Annotate button. You should have access to a menu of tools such as Text, Draw, and Stamp.
    - See Zoom’s annotation guide for more information: [https://support.zoom.us/hc/en-us/articles/115005706806-Using-annotation-tools-on-a-shared-screen-or-whiteboard](https://support.zoom.us/hc/en-us/articles/115005706806-Using-annotation-tools-on-a-shared-screen-or-whiteboard)
  - **Caveats**
    - If you let participants annotate, things could get ugly. (There have been incidents of Zoom bombers drawing offensive images.)
    - Drawing on a virtual whiteboard can be tricky. You can instead use a tablet or phone, but there may be a lag.
    - Annotations are not accessible to students who use screen readers
    - Your screen may freeze while you are annotating, especially if there are bandwidth issues.

- **Polling**
  - **Why**
    - Engage participants.
    - Get a quick sense of what is confusing students.
    - Prompt recall and reflection.
    - Adjust your class session based on feedback.
    - Use peer instruction -- pose a question, run a poll, break students up into small groups to discuss the question, and run the poll again
  - **How**
    - Create a poll from the Meetings page
    - See the Zoom guide to polling: [https://support.zoom.us/hc/en-us/articles/213756303-Polling-for-Meetings](https://support.zoom.us/hc/en-us/articles/213756303-Polling-for-Meetings)
  - **Caveats**
    - Only single answer or multiple choice questions are supported.
    - Only original hosts can create a poll.
    - You can't edit a live poll.

- **Breakout Rooms**
- **Why**
  - Enable small group discussion
  - Use techniques like think, pair and share
  - Allow shyer students to interact with a smaller group
  - Enable project teams to collaborate, then update the larger group

- **How**
  - Click the Breakout Rooms button, then determine whether you want to manually assign rooms or let Zoom do it automatically
  - See the Zoom guide at [https://support.zoom.us/hc/en-us/articles/206476313-Managing-breakout-rooms](https://support.zoom.us/hc/en-us/articles/206476313-Managing-breakout-rooms)

- **Caveats**
  - Students may flounder if they aren’t given clear instructions (but they can click a button to ask for help.)
  - Participation may be uneven.
  - You can pop in and out of breakout rooms, but you can’t monitor all at once.
  - Students won’t have access to the main Zoom room, so share the prompt on Canvas or elsewhere. You can also broadcast messages to all rooms.
  - Asynchronous students will not be able to participate.

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**Security Best Practices**

- **Meeting Links**
  - Make sure you’re logged into your Rice University Zoom Profile:
    - Go to: [https://riceuniversity.zoom.us/](https://riceuniversity.zoom.us/)
    - Click Login (this takes you to your Profile page)
    - Select “Join a Meeting”
    - Enter the Meeting ID code (found at the end of the link and below the link)
    - Then click “Join”

- **Account Settings**
  - Make sure to review all settings (there are a lot!) and make changes based on how you would like your overall meetings set. You can then make individual setting changes at the Meeting level when you select “Schedule a Meeting” under the Meetings option.
  - You can jump to a specific section of the Account Settings using the bookmarked sections to the left of “Account Settings”
  - You can customize sections indicated by a pencil icon. Tailor specific messages that will be used for all your meetings. (Customizations are made at the Account level.)
○ Renaming: Toggle this off so that participants can’t rename themselves in a live session.
○ Screen share: Toggle this off if you don’t want any participants to be able to share their screen. This affects the following features of screen sharing:
  ■ Annotation
  ■ Remote Control
  ■ Disable desktop/screen share for participants
  ■ Whiteboard
○ Leave Screen share toggled ON and select “Host Only” if you want to allow hosts/co-hosts to share and no one else.
○ Chat:
  ■ For tightest security toggle OFF the ability for users to have private one on one chats or to send messages to all participants. (This still allows participants to send messages to the hosts.)
○ Waiting Room:
  ■ Enable this feature for greatest security
  ■ You may send everyone to the waiting room or Guest Participants (those outside of your organization).
  ■ Customize your participant’s waiting room messages by clicking on the pencil icon.
○ File transfer:
  ■ Toggle this OFF if you do not want participants sharing files with others. (This allows the host to be the sole individual able to send files to the group.)

● Meeting Settings & Best Practices
○ Log in 15-30 minutes early to review your meeting settings, new features added/removed by Zoom and the ability to prepare yourself to maneuver easily in the application.
○ Always allow Zoom to generate random meeting IDs rather than providing your personal meeting ID.
○ For a ‘Meeting on the Fly’ use Zoom’s “Instant Meeting” link. This places you in a Zoom meeting without setting up a meeting or calendar invite. You can then add individuals to the meeting by copying the invitation and emailing the link, or you can send the link via an instant messaging system such as Google Chat, Skype, Slack, Trello, etc.
○ Settings you make at the Meeting level override those made at the Account level.
○ Tick “Required” under Registration. This means a user must register before being provided login information. Use this feature for large meetings where you would like higher security.
○ Select Require Password...don’t just go with the Zoom prepopulated password...be creative and select your own. (Alphanumeric and special characters permitted)
○ Mute hosts and participants upon entry.
○ Ensure video is turned OFF for hosts and participants upon entry.
○ Set one or more co-hosts entering their email addresses (must be in your organization), to help monitor, present, address issues while you are running your class/meeting.

● Security Icon
○ This area allows a host to make changes while in a live Zoom session.
○ You may toggle ON the Waiting Room, and toggle OFF the Share Screen, Chat and Rename features.
○ Toggle ON “Lock Meeting” for greater security over unknown individuals entering your class/meeting once you have started.

● Managing Participants
○ Clicking the Participants link allows additional control.
○ Clicking the ellipsis provides additional options.
○ Tick Mute participants upon entry or select “Mute all” or “Unmute all”.
○ Remind users that they are muted, and if they would like to speak, they can unmute themselves by clicking on their microphone icon. The selection “Allow Participants to Unmute Themselves” must be checked. If it is not, the host/co-host must unmute participants.
○ If you do not want participants renaming themselves, make sure the selection “Allow Participants to Rename Themselves” is unchecked. You as the host/co-host can rename participants.
○ If you want to admit participants individually or in groups, make sure the selection “Enable Waiting Room” is checked.
○ Hovering next to the name of a participant allows you the following options:
  ■ Chat with that person (privately)
  ■ Make Host/Co-Host
  ■ Allow that individual to set a recording of the class/meeting
  ■ Rename an individual
  ■ Put them in a waiting room
  ■ Remove the participant
○ If you remove a participant, they will not be able to rejoin unless you have the option “Allow Removed Participants to Rejoin” toggled ON under your account settings.

For the most secure environment use meeting registration, meeting passwords, waiting room and lock your meeting after all participants have joined, or a set time your comfortable everyone is in your class/meeting.
How to Look and Sound Your Best on Zoom

● Upgrade your microphone and webcam
   To have a better audio and video quality than what your computer’s built-in mic and camera can provide, refer to the following buying guides
   ○ DMC buying guide for external mic and webcam
   ○ Campus IT buying guide for remote teaching

● Make sure your Internet connection is stable and fast enough
   ○ If you are experiencing any issue(s) with choppy audio, frozen screen, or meeting getting disconnected, it might be caused by slow Internet speed
   ○ General measures to improve your Internet connection
     ■ Upgrade your home Internet connection to a faster plan
     ■ Use a wired connection when possible (have an Ethernet cable connect your computer to a router)
     ■ Stay closer to the Wifi router if you are on a wireless network. Distance matters!
     ■ Avoid using website that has dynamic content on your computer
     ■ Limit high data transfer activities by others at your location such as playing online games and watching online videos
   ○ Check your Internet bandwidth using an online speed test, such as nperf, Speedtest, or Comparitech.
   ○ Learn Zoom bandwidth requirements here
     ■ > 3Mbps, both receiving and sending 1080p HD video is fine.
     ■ <3Mbps, budget your bandwidth wisely
       ● A good rule of thumb is that audio is more important than video when video conferencing over Zoom
       ● Turn off camera if seeing each other is not important
       ● Disable HD video to reduce data transfer (720p video only requires 1.5Mbps uploading and downloading Internet speed)
       ● Only share screen when it is necessary
       ● Mute your mic when not speaking

● Adjust audio and video settings
   ○ My Video -> Touch up my appearance, this is a software smooth and soften filter that makes you look better, you might want to leave it on.
   ○ Use virtual background to ensure your personal work environment is not shown during Zoom meetings if your computer supports the feature

FAQs

○ Use the dual-monitor display feature to allow the video layout and screen share content to be placed on two separate monitors/screens.
To enable this feature, after login to Zoom desktop client, go to Gear->General -> Use dual monitors

- Gallery or speaker view can be displayed on one monitor while the other monitor displays a content share.
- Go to Zoom support page to see if your computer supports this feature

- **Cloud Recordings** since it offers more options than **Local Recordings**
  - Local Recordings - only a video .mp4 file saved to your local computer
  - Cloud Recordings
    - a video .mp4 file, an audio .mp3 file for audio stream, and a text .txt file for chat can be recorded separately and saved to the cloud
    - The video file can be trimmed before sharing
    - Sharing can be public, signed in required, or password protected.
    - All the files can be downloaded and edited, then shared with Box or Google Drive.
    - Cloud recording only records the main room, regardless of what room the meeting host is in.
    - Live polls including the polling questions, responses, and results will not be recorded.

- Publish cloud recordings in Canvas
  - Locate the Zoom area in your canvas course
  - Click on Cloud Recordings tab (note: in order for the recording to appear in your Canvas course, you must record to the cloud).
  - Make sure “Publish” button is on. Students will go to this "Cloud Recordings" tab to view Zoom recordings that you have published.

- **Host vs Alternative Host vs Co-host**
  - A Zoom meeting can only have one host
  - A Zoom account can’t host concurrent Zoom meetings
  - An alternative host can be assigned when scheduling the Zoom meeting, so an alternative host can start the meeting. If an alternative host starts the meeting, he/she becomes the host. But he/she still can’t create and edit polls since he/she is not the original host.
  - A co-host can only be assigned during the meeting, so a co-host can’t start a meeting

- **Screen sharing**
  - Sharing an application is considered a security best practice since it doesn’t reveal your personal desktop
Sharing a desktop is more convenient if you have to switch between applications frequently. You want to make sure your desktop is not cluttered and appropriate to share.

- Scheduling meetings for others is doable if given the scheduling privilege

Resources

- CTE, *Inclusion, Equity, and Access While Teaching Remotely*
- The Carpentries, *Resources for Online Workshops*
- University of Washington History Department, *Online Teaching Resources*
- Harvard School of Continuing Studies, *Zoom Training*
- Recommendations for Teaching Carpentries Workshops Online
- Harvard Law School, *Teaching Remotely with Zoom: FAQ and Instructions*
- University of Arizona, “Inclusivity in the Zoom Classroom: A Practical Guide”
- Rice virtual background images
  https://wiki.rice.edu/confluence/display/DMCGUIDES/Using+Zoom+Virtual+Backgrounds