

A. Technology requirements:

1. Each participant (Chair, committee members, and student) will need a laptop or desktop computer with a webcam and microphone.
2. In addition, the student may also need a tablet (for whiteboard use).
3. Each participant should create a Zoom account, whether licensed (Chair must have license) or free.
4. Each device should have the Zoom app downloaded.
5. Check your internet connection in the room you plan to use prior to the exam.
6. To avoid audio feedback/echoes, it is advised that everyone use headphones or at a minimum mute their microphones when not speaking (Quick tip: you can set your spacebar to temporarily unmute you, click the options menu next to the microphone button on the lower left and select "Audio Settings.." and check the box next to "Press and hold SPACE key to temporarily unmute yourself").
7. If you wish to use a virtual background, choose one background at the beginning and keep it the same the whole time.
8. Please ensure all devices and wireless headphones are fully charged before the meeting and, if possible, stay plugged in during the meeting.
9. Please plan ahead to address lighting in the room and avoid backlighting.

B. Setting up Zoom:

1. Chair (Meeting Host): As you will serve as the meeting host, you will need to have a licensed version of the software. The free version only allows a maximum meeting length of 40 min, whereas the licensed version has no time limit. Most UCD departments have been given sets of licenses, so if you have not already done so, contact your department's IT manager to have them add you as a user.
2. All other participants: If you are not hosting the meeting, you only need the free version of Zoom. Regardless, you will need to first set up an account so do this before the meeting if you are a first time user.
3. If you would like to better familiarize yourself with Zoom and its many settings and functions, below are links to several useful tutorials:
 - i. [Getting started with Zoom](#)
 - ii. [Zoom meeting controls](#)
 - iii. [Waiting Room](#) setup and use
 - iv. [Sharing a whiteboard](#)
 - v. [Create and personalize](#) your own virtual meeting room

C. Schedule a meeting (Chair):

Zoom meetings are generally scheduled in advance. Open the Zoom app and Click the “Schedule” button, then follow the setup instructions below.

1. **Topic:** e.g. “Emily Davis’ Qualifying Exam”
2. **Date:** Select appropriate data and start time, with a 3-hour duration..
3. **Meeting ID:** Select “Generate Automatically” This is the most secure setting.
4. **Password:** Select “Require meeting password” and pick a password or code. This is the most secure setting and will prevent “trolls” and “zoom bombers.”
5. **Video:** Select “On” for both Host and Participant.
6. **Audio:** Use default “Telephone and Computer Audio.”
7. Click **Advanced Options**, and select to **Enable waiting room** and **Enable join before host**, which will put all participants in the waiting room until you invite them in. It will also allow the student to connect their devices while they wait.
8. Hit the **Schedule** button at the bottom of the page. The meeting will now appear in the Zoom app home tab.
9. Send out the Zoom invitation to all participants: click the “...” button next to the meeting name, and select “**Copy Invitation**” to generate the text for an email that contains a hyperlink to join the meeting, the meeting ID and password.

D. Setting up your exam room (Student)

The student will need to set up devices to take the exam:

1. A laptop or desktop computer with a webcam, which will be used as the main device, for the student to face and speak with committee members
2. If needed, a tablet and stylus (either the student’s own or borrowed iPad, check with the student's college), with the Zoom app loaded. From this tablet, the student will also join the meeting, (as another guest, eg “Emily’s Kindle”). Once the Chair has allowed screen sharing, the student will be able to select "Share Screen" and select the "Whiteboard" option. The whiteboard will provide drawing and sketching functions.

IMPORTANT: When the committee convenes or deliberates, both of the student’s Zoom instances will need to be moved to the waiting room.

E. Setting up the exam (Chair)

Screen sharing: The default setting allows only the host to screen share. Once the meeting has started, the Chair will need to allow the student to share their screen(s):

1. Click on the arrow to the right of the **“Share Screen”** button in the bottom menu bar. This will reveal an options menu.
2. Selecting **“Advanced Sharing Options...”** will open a new window
3. In **“Who can share”** select **“All participants”** (default is “Host only”).

Moving the student to the waiting room: When faculty need to discuss or deliberate without the student, the Chair should move all student instances out of the meeting and into the waiting room so that they cannot hear the discussion:

1. When you hover your mouse near the bottom of the screen, click the **“Participants”** button
2. A listing of participants will populate, either on the right or as a separate pop-up window
3. Hover your mouse at the student’s devices, and select **“More”**, then select **“Move to waiting room”**

F. Suggested Best Practices for the exam (All participants):

1. Please **give your full attention to the exam and use your video** to the extent that your internet connection allows, rather than a still image or your name. This will ensure that the student knows you are giving your full attention to the exam. Students will understandably seek non-verbal cues to know if the exam is going well, or if anything was unclear.
2. Please **arrange the lighting in the room** to properly light your face and work area during the exam, and minimize back-lighting (lights or windows behind you)
3. Please **do not use the chat** during the exam except to communicate with the Chair. The chat can be very distracting to the student taking the exam. If you do use chat, please mute yourself so that your keyboard sound is not transmitted.
4. The Chair should **place both of the student’s devices in the waiting room** to convene or deliberate. Please give the student an idea how long the deliberation will take.
5. The Chair should **know how to share screen so that documents can be shared** with the other committee members (e.g. student’s transcript).
6. **The exam cannot be recorded.**

G. Troubleshooting

To avoid unnecessary delays due to technical issues, we recommend that you 1) schedule a practice session with all committee members and the student a minimum of one day before the exam, and 2) on the day of the exam everyone should log into the meeting a minimum of 15 minute before the scheduled start time.

If Zoom crashes or has trouble starting up more than once, quit Zoom and try turning your computer off and back on again.

If you are experiencing **audio or video issues** (i.e. other participants cannot see or hear you), first, try leaving and re-entering the room.

If your **connection is poor** or video is not working well (freezing, etc.), try:

1. Moving closer to your wireless router
2. Turning off your video
3. Turning off all video except the person questioning the candidate
4. If suggestions 1-3 above do not resolve the issue, consider asking other members of your household to avoid high-bandwidth activities, i.e. Netflix, other video calls, Fortnite, etc. during the exam.
5. Leave the Zoom meeting and re-join using your phone

If there is substantial audio feedback / echoes, mute your microphones when not speaking and/or switch to headphones.

Acknowledgments: UC Davis MCIP graduate program and College of Biological Sciences.

Adapted from *Defending a Dissertation by Videoconference*, by Ashton Merck, Ph.D., Duke University,

https://docs.google.com/document/d/1ktdFVX0gBVERixR1wWZeguPTw6HQmf_zwPEUYVmuVq_c/mobilebasic