The following recommended directions explain how to set up a Zoom exam, book a student Zoom Facilitator, and ensure the exam runs smoothly and securely. Detailed instructions follow on the next page.

**OVERVIEW**

Process for planning and conducting a Zoom candidacy or thesis oral exam:

1. **Share details of the exam date, time and format**
   - The GPA notifies the examinee, examiners, committee members and chair are aware of the exam format and any time zone differences.

2. **Requesting a GAT Zoom Facilitator**
   - GPA submits request to FGS for a Zoom Facilitator a minimum of three days before the exam.

3. **Scheduling a Zoom meeting**
   - Zoom Facilitator helps to schedule the meeting using FGS recommended settings.

4. **Prior to the Zoom exam**
   - Examinee connects with Zoom Facilitator and chair to ensure smooth technical preparations.

5. **Starting the Zoom exam**
   - Zoom Facilitator helps to start the exam, dealing with any technical issues.

6. **During the Zoom exam**
   - Chair moderates the exam and the Zoom meeting room; regular FGS exam procedures apply.

7. **Deliberations**
   - Examinee leaves the Zoom meeting room for private deliberations of the exam committee.

8. **End of meeting**
   - Examinee returns to exam, learns of outcome, and the meeting is ended.
Detailed procedures for running a remote exam with Zoom

Purpose
Please follow these directions for planning and conducting a remote candidacy or thesis exam. These directions provide procedures and technical guidelines for running a remote oral exam using Zoom videoconferencing technology. These directions do not replace university regulations governing candidacy and thesis exams, or temporary guidelines for remote examinations. Then exam chair is responsible for understanding and conducting exams in accordance with the following guidelines:

- **Calendar section K.1 - Admission to Candidacy (current regulations):**
  [https://www.ucalgary.ca/pubs/calendar/grad/current/gs-k.html](https://www.ucalgary.ca/pubs/calendar/grad/current/gs-k.html)
- **Calendar section K.1 – Admission to Candidacy (older regulations):**
- **Calendar section M. – Thesis Examinations:**
  [https://www.ucalgary.ca/pubs/calendar/grad/current/gs-m.html](https://www.ucalgary.ca/pubs/calendar/grad/current/gs-m.html)
- **Students’ Remote Participation in Examination – Temporary Accommodations Effective March 16-August 31, 2020:**
- **General guidelines for NC:**
- **Neutral Chair Guide for Failed Exams:**

Procedure for running a remote exam with Zoom

1. **Share details of the exam date, time and format**
   - The GPA ensures that the examinee, examiners, committee members and chair are aware of the exam format (included any required presentation or seminar), time zone differences (if applicable) and back-up resources if Zoom fails:
     - Mobile numbers should be exchanged and arrangements made to call if Zoom fails.
     - Up to 60 minutes are allowed to resolve technical issues and then proceed.
     - Ensure the chair has contact information for the associate dean in case technical issues cannot be resolved inside of 60 minutes.

2. **Requesting a GAT Zoom Facilitator**
   - A minimum of three days prior to the scheduled Zoom exam, the GPA may contact FGS to request the services of a GAT Zoom Facilitator (ZF). When making the request, please provide email contact information for the following:
     - examinee
     - chair
• examining committee members
• GPD or AD
• Any additional attendees such as a Dean’s representative or guests approved to attend.

• It is important to support a balance between Zoom meeting security (to avoid disruptions, i.e. ‘zoombombing’) and allowing for an open exam. Anyone other the examining committee members or student, wishing to attend the exam must be approved by the examinee and have their information shared with the neutral chair ahead of the exam. The chair will then share contact information with the ZF to add to the meeting invitation list (collectively, the ‘attendees’).

3. Scheduling a Zoom meeting and sending notification
• The ZF will schedule the Zoom meeting, using the following settings and security measures:
  o Required registration – all attendees are required to register in order to attend.
  o Random meeting ID – this prevents the meeting ID from being shared multiple times.
  o Password-protected Zoom classroom entry – all attendees will be required to enter a password provided by the ZF. The ZF should remind people not to share the password. As of May 6, password-protected entry will be set by default for all Zoom meetings.
  o The chair and ZF should be made co-hosts and share their contact information (e-mail and telephone number)
  o Zoom meeting attendees should have their microphones automatically set to mute upon entry.

4. Prior to the Zoom exam
• If the examinee has a presentation, it is recommended that this is shared with the co-hosts at least .5 hrs prior to the exam. PowerPoint (16x9 aspect ratio) is the recommended format for presentation materials.
• To ensure meeting quality and full access to Zoom conference features, the examinee should participate in the meeting using a laptop or desktop computer.

5. Starting the Zoom exam
• The ZF, chair and examinee should enter the Zoom meeting 15-30 minutes ahead of the exam to prepare presentation materials and address any technical issues.
• The ZF can delegate access to share screen to the examinee, and limit the same for all other attendees.
• At the outset of the exam, establish methods for:
  o Contacting the examinee when it is time to rejoin the meeting following deliberations (i.e., email or phone)
  o Conducting a straw vote outside of the Zoom meeting technology (i.e., by email or text).

6. During the Zoom exam
• The remote exam is NOT permitted to be recorded.
• The ZF is not expected to attend the oral examination once it starts. However, the ZF must be available and easily reachable (e-mail or telephone number) in case they are needed for technical assistance. When leaving the meeting, the ZF must be careful NOT to select ‘End meeting for all’.
• Once the exam starts, it is recommended that the ZF lock the meeting room. This prevents any additional attendees from joining.
• The ZF or chair should disable the private chat feature, in keeping with the expectation that in-person attendees would also not conduct a private chat during the exam.
• The group chat feature should only be used to identify pressing technical issues to the chair and attendees.
• The chair will have powers to mute/unmute other attendees.
• It is critical that the student maintain audio-video connection throughout the examination.
7. Deliberations
- Deliberations are **NOT** permitted to be recorded.
- The examinee and other attendees not on the exam committee must not be present for confidential deliberations. There are two options for ensuring confidential deliberations:
  1. **The examinee exits the meeting themselves.**
     - It is important that the examinee is NOT removed from the meeting by either the chair or the ZF (i.e., the Zoom meeting co-chairs). If the Zoom meeting co-chairs remove the examinee, the examinee will NOT be able to re-enter the meeting.
     - In this case, it is also therefore essential that the chair have a way to contact the examinee (e.g., text, phone or email) to invite them to re-join the meeting following deliberations.
     - Following deliberations, the chair will contact the examinee using the previously agreed upon contact method and invite them to re-join the meeting.
  2. **The chair moves the exam committee into a confidential Zoom break-out room for deliberations.**
     - The chair can do this manually by assigning participants to a break-out room. More information on using breakout rooms is available here: [http://elearn.ucalgary.ca/breakout-rooms/](http://elearn.ucalgary.ca/breakout-rooms/)
     - **DO NOT** use the Zoom polling feature to conduct a straw vote. It is recommended that the straw vote be conducted by committee members sending votes via UCalgary email addresses to the chair’s UCalgary email address.

8. End of meeting
- Upon conclusion of the exam procedures, after the examinee has rejoined the meeting and the outcome has been communicated to them, the chair will acknowledge the close of proceedings.
- The ZF will end the Zoom meeting.

Troubleshooting

The University of Calgary provides Zoom training, FAQs and troubleshooting information here:

[http://elearn.ucalgary.ca/zoom/](http://elearn.ucalgary.ca/zoom/)

- If Zoom crashes or has trouble starting up the meeting more than once, quit Zoom and try turning your computer off and back on again.
- If you are experiencing audio or video issues (e.g. other participants cannot see or hear you), try leaving and re-entering the room.
- If your connection is poor or video is not working well (e.g. freezing, etc.), try:
  - Moving closer to your wireless router.
  - Turning off your video.
  - Asking other members of your family to avoid high-bandwidth activities (e.g. Netflix, other video calls, Fortnite, etc.).
  - Turning off all video except the person questioning the candidate
  - Leaving the room and re-joining via phone
  - If problems persist, consider calling in via phone (unless you are the examinee, chair, or a member of the examination committee).
  - If all else fails, notify the chair of the issue by other means (e.g., email, text).

If you experience substantial audio feedback/echoes, mute your microphones when not speaking and/or switch to headphones.
Basic recommendations for using Zoom (all attendees):

- Use a reliable computer with a working camera and microphone.
- Check your internet connection in the room you plan to use prior to the defense.
- Create a Zoom account and download the app prior to the defense (you can also use the online Zoom app). The University of Calgary is using Zoom widely for online course delivery and remote meetings: find instructions for accessing and using Zoom here: [http://elearn.ucalgary.ca/zoom/](http://elearn.ucalgary.ca/zoom/).
- The Zoom event host will invite you to register for the meeting; upon registration you will receive an invitation and password. Follow the link provided in the invitation at the time appointed for the Zoom meeting; the Zoom app will open. Try a test meeting prior to the defense to resolve any technical difficulties.
- Use microphone and video. Mute microphone while not speaking to avoid background noise. Headphones are recommended, but not required.

Best practices for the examinee and exam committee:

- Use your video to the extent that your internet connection allows, rather than a still image or your name. This helps students know you are giving the exam your full attention.
- Please mute your microphone unless you are speaking. Please also be sure to mute your microphone if you are typing. This will noticeably improve the audio for everyone by cutting down on feedback loops and background noise.
- Take the time to arrange your camera and lighting in advance.
- Select the option to “hide non-video participants” - this hides all observers at once.
- Avoid waving your hands close to the camera.
- Avoid nudging/jostling the table on which your computer sits - it makes the screen blur.
- Try to stay in front of your computer throughout the exam.
- Please avoid the temptation to answer emails and continue with unrelated tasks.
- It is especially important to avoid the temptation to look up or fact-check answers given by the candidate/student using resources other than the submitted proposal/thesis such as Google, Google Scholar and PubMed. The student is not allowed to use these resources in the exam, and it is only fair that examiners rely on their pre-existing knowledge of the subject material while giving the candidate/student their full attention.

Best practices for other exam observers:

- Please keep your microphone muted at all times.
- Join with your name and a static profile picture to cut down on visual distractions.
- Do not message or otherwise distract the person defending during the defense.
- Feel free to turn on your audio/video at the very end so everyone can see you.

Additional tips:

- If you need to “mute” or “hide video” for someone, you’re actually blocking their audio/video - when they need to talk again or be seen, you’ll have to “un-block” them.
- If you have notes or a presentation, practice how you will set up and deliver that beforehand. You may want to arrange your screen so that you can see your committee as you deliver your introduction/presentation.
Important: make plans to celebrate again in person later. Also, don’t forget to take at least a few planned screenshots with your committee/observers.

Faculty of Graduate Studies contact information and regulations

Contact FGS emergency numbers as required, in case of any exam disruptions, or issues or questions related to regulations and procedures:

- Phone: (403) 220-4938
- Email: graduate@ucalgary.ca

Ensure you have the associate dean’s contact details for exams taking place outside of regular FGS office hours.
Setting up your workspace for a Zoom meeting

The left image was achieved with the webcam setup as shown on the right. Natural light is coming in through an opposite window, but because of the late afternoon (this was taken around 4pm), an overhead light is also turned on. After looking at this, I might even need one or two more books to get the screen to the right height. Note the external keyboard and mouse so that I don’t have to lean too far forward to type anything.

- You do not have to be logged into Zoom to test your webcam.
- In Windows 10, open “Camera” (may need to search in “Settings” in Windows 7).
- For Mac, open Photo Booth.

Very few people have a totally ideal setup for a video call, but a flat wall is generally preferable to corners. Stuff in the background is fine - you are a real person, after all!

Take note of the location of your webcam on your laptop.
- You want to keep the camera at or slightly above eye level, i.e. your gaze should naturally fall about 2 inches below the top edge of the screen (if the camera is at the top of your screen) - so you’ll be looking straight ahead at people on the call.
- Depending on the height of the table or desk you are using, you may need to place your computer on top of a stack of books to get your webcam to eye level.
- Tilting your screen back really far is not a substitute for a stack of books.
- It may also help if you shrink your video window and move it to the top of your screen (so it is near your webcam).

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2. Images and text courtesy of Ashton Merck.
Take time to adjust the lighting.

- Avoid sitting in rooms where natural light, venetian blinds, or other lighting are visible in the frame and/or are located behind you. (Note that both of these images also feature corners of rooms, and no overhead lighting. And those blinds are closed, by the way!)

- By contrast, it is best to have lighting that is off camera - either directly in front of you, overhead, and/or to the side. In the photo to the right, natural light from an opposite window has been augmented by an overhead light.

- If you prefer to use a virtual background, decide on that background before the defense begins and keep it the same. Unsplash has some nice images.

If you think you might type or need to use your mouse at any point, use an external keyboard and/or mouse as shown.

This should go without saying, but - this is a formal occasion. Dress the part! (Note that I am even wearing formal SHOES).

March 30, 2020