Overview

This document outlines steps that the faculty, staff, and student body can take to prepare themselves to work, teach and learn remotely. There are sections below dedicated to each of these critical constituencies.

UPDATE: Zoom has recently released their client version 5.0. Please <u>update your client</u> to realize the security benefits of these upgrades.

NOTE: The IT@Bennington Help Desk can now be reached via three mechanisms:

- Email, helpdesk@bennington.edu
- Phone, 802-440-4476
- <u>Virtual Help Desk in Zoom, bit.ly/bennvirtualhelpdesk</u>

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Final Preparations for Live Classes

As we prepare to "go live" with our remote instruction on Monday, March 30, we want to provide some thoughts on how we can best prepare to both minimize the need for and quickly respond to challenges with your live course meetings.

Please note that there are some issues that will be beyond our control. With the plurality of devices and network connectivity, some amount of technical challenge is unavoidable. We will do everything in our power to help diagnose and resolve issues as quickly as possible. Thinking through the issues outlined below will, we hope, help minimize issues with technology and help provide a clear path forward if technology issues arise.

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Strategies for Minimizing Instructor Technical Challenges

There are several suggestions we encourage for instructors to take to ensure that they are ready for live, remote instruction, outlined below:

- 1. Please restart your computer at least once a day. This is the equivalent of giving your machine a good night's sleep.
- 2. Test your network connection to see what your upload and download speeds are. One tool for this is https://www.speedtest.net. Use the guide in Appendix L to see if you are set up for success given your network speeds.
- 3. Test your teaching environment. Then test it again. Then test it a third time. For many of you, this will be a Zoom meeting. Invite a colleague or a friend to a test online meeting, and quickly execute a run-of-show for your online course. You won't need to do this every time, but for the first few sessions, testing tech and practicing will pay rich dividends. If you find you are experiencing problems in your testing, consider these options:
 - a. Use Appendix K to troubleshoot network and computer issues.
 - b. Use <u>Appendix M</u> to trouble <u>video</u> and <u>audio</u> issues, or to learn how to <u>use the phone bridge</u> instead of audio from your computer.
- 4. Consider changing your technology tools and/or settings based on your network environment. <u>Appendix K of this document</u> outlines some strategies for ensuring that you optimize your computer and network settings to minimize disruption.
- 5. Communicate with your students in advance of your first course. We suggest the following:
 - a. Encourage your students to optimize their learning environment. Send them the link to <u>Appendix K of this document</u> and ask them to test their environment before class, and to seek help before class if they need it. They can login to the <u>Virtual Help Desk</u>, <u>bit.ly/bennvirtualhelpdesk</u>, to test out Zoom on their computer/network. We will be hosting live support in this room all day Friday, March 27 and Saturday and Sunday, March 28-29 from 10:00 a.m. 2:00 p.m.

- Encourage students to have a phone available to dial into the phone bridge if they have technical trouble with the video conference in Zoom or Google Hangouts Meet.
- c. Have a clearly articulated policy for what students should do if they can't connect via any mechanism (computer or phone). Here is our recommendation:
 - i. Students should try to connect via the video conference meeting.
 - ii. If they run into problems, they should try to connect to the phone bridge. Note that they may need the meeting ID and password -- this will be in the meeting invite they received in email.
 - iii. If both of those solutions fail, they should email you alerting you to the issues, and then contact the IT@Bennington Help Desk:
 - 1. email helpdesk@bennington.edu
 - 2. phone: 802-440-4476
 - 3. Bennington Virtual Help Desk, bit.ly/bennvirtualhelpdesk.
- 6. Be prepared for how you as an instructor will handle challenges with your own technology. We discuss some options/suggestions below.
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Strategies for Minimizing Student Technical Challenges

- 1. Please restart your computer at least once a day. This is the equivalent of giving your machine a good night's sleep.
- Test your network connection to see what your upload and download speeds are. One
 tool for this is https://www.speedtest.net. Use the guide in Appendix L to see if you are
 set up for success given your network speeds.
- 3. Test your learning environment. Then test it again. Then test it a third time. For many of you, this will be a Zoom meeting. Create a Zoom meeting in your Bennington Google Calendar and invite a few friends to connect to ensure that your audio and video work. You won't need to do this every time, but for the first few sessions, testing tech and practicing will pay rich dividends. If you find you are experiencing problems in your testing, consider these options:
 - a. Use Appendix K to troubleshoot network and computer issues.
 - b. Use <u>Appendix M</u> to trouble <u>video</u> and <u>audio</u> issues, or to learn how to <u>use the phone bridge</u> instead of audio from your computer.
- 4. Consider changes to your learning environment to match your network. <u>Appendix K of this document</u> outlines some strategies for ensuring that you optimize your computer and network settings to minimize disruption.
- 5. Try to ensure that you know what you'll do should you experience challenges as you try to enter a remote class. Some suggestions:
 - a. Be prepared to turn off your video if you run into pixelation or audio issues.
 - b. Be prepared to dial in with a phone bridge if you can't make the web conference work. Note that you may need the meeting ID and password from the email

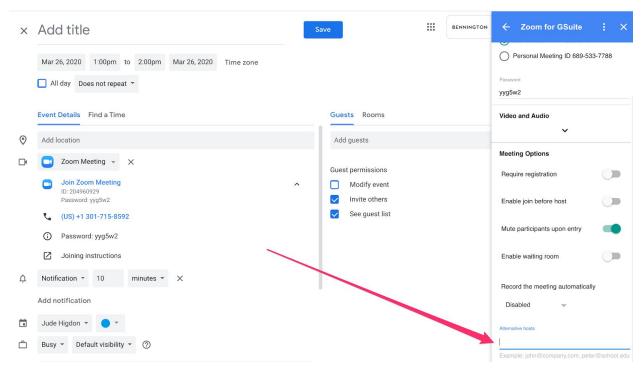
- invitation to the meeting to enter the phone bridge. You may wish to try dialing into the phone bridge using Google Hangouts phone service.
- c. Plan to email the instructor in real-time alerting them to challenges so they have a concurrent record of the issues.
- d. If you can't connect to the class meeting by any means, contact the IT@Bennington Help Desk right away, by <a href="mailto:email

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Strategies for Responding to Real-Time Technical Challenges for Instructors

Despite the best planning, some amount of technical issue is always possible with live technology. Here are some suggestions for ways to troubleshoot in real-time if you need to get your class started and you're experiencing technical issues:

- 1. If you aren't able to log into your meeting at all, you may wish to dial into the phone bridge to kick off the class. Appendix M has a section on dialing into the phone bridge.
- 2. If you're able to login but can't get your video or audio to work, you may wish to do a quick troubleshooting session on your own. If you find you are experiencing problems in your class, consider these options:
 - a. Use Appendix K to troubleshoot network and computer issues.
 - b. Use <u>Appendix M</u> to trouble <u>video</u> and <u>audio</u> issues, or to learn how to <u>use the phone bridge</u> instead of audio from your computer.
- 3. If you are struggling overall with the technology and can't start the class, you may wish to set up a student as a co-host and ask them to kick the class off; open your Zoom meeting in Google Calendar, open the Zoom for G-Suite sidebar (Zoom icon in the right side tool tray), and add a student as a co-host.



Email your students to join the meeting, and ask the student you've designated to get the class going while you sort your technology issues.

4. If you can't connect to the class meeting by any means, contact the IT@Bennington Help Desk right away, by <a href="mailto:email

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Strategies for Responding to Real-Time Technical Challenges for Students

Despite the best planning, some amount of technical issue is always possible with live technology. Here are some suggestions for ways to troubleshoot in real-time if you need to get your class started and you're experiencing technical issues:

- 1. If you aren't able to log into your meeting at all, you may wish to dial into the phone bridge. You may wish to try dialing into the phone bridge using Google Hangouts phoneservice.
- 2. If you're experiencing issues during your class, consider the following
 - a. Use Appendix K to troubleshoot network and computer issues.
 - b. Use <u>Appendix M</u> to trouble <u>video</u> and <u>audio</u> issues, or to learn how to <u>use the</u> phone bridge instead of audio from your computer.
- 3. If you can't connect to the class meeting by any means, email your instructor right away. Then contact the IT@Bennington Help Desk by <a href="mailto:email

If you get the Help Desk voicemail, leave your name, your issue, and a call back number and someone will respond as quickly as possible.

Faculty Resources

Educause Review has released a summary <u>study about students' needs</u> for remote instruction in this moment. It's a fairly quick read, and has some interesting insights.

There are two major strategies that we recommend for faculty members who need to continue teaching while unable to meet face-to-face with students: 1. hold classes synchronously during the regularly scheduled times, and 2. develop asynchronous remote teaching and learning experiences. Technology to facilitate these models can be found below.

Synchronous (Real-Time) Tools

For classes that will continue to meet in real-time, Bennington College has two enterprise video conferencing solutions: Zoom and Google Hangouts Meet. We briefly explain the affordances of each below.

Zoom

Zoom is a full-featured, enterprise video conferencing tool. Our Zoom campus license allows for unlimited simultaneous video conferences from anyone with an @bennington.edu email address, with up to 100 participants in each conference. Our license includes an audio bridge for all *faculty* accounts; students have an enhanced educational license, but their license does not include the audio bridge functionality. Please see Appendix C: Instructions for Authorizing Zoom and Creating Meetings for instructions on how to authorize and set up meetings with Zoom.

One of the features of Zoom that many faculty members have expressed interest in is the Zoom Breakout Rooms. In essence, Breakout Rooms allow you quickly to create private video chat rooms for your students. The groups can be randomly assigned and evenly distributed by Zoom, or you can manually add students into groups. In order to use Breakout Rooms, you first need to enable them in your online Zoom Account settings. Please see Appendix D: Setting up Breakout Rooms in Zoom for instructions on setting this up. Once you have enable the feature, all future meetings that you initiate will have the Breakout Rooms feature. Please see the Zoom tutorial on using Breakout Rooms for instructions on how to create and manage rooms in a meeting.

Zoom is now also integrated with Populi. For instructions on using the "Conference" feature, please see Appendix H: Integrating Zoom with Populi.

One final note: if you have students who may need to dial-in from an international phone number, be sure to enable the international dial-in feature when you create your meetings.

Google Hangouts Meet

Google Hangouts Meet is also an enterprise video conferencing system. While not as fully featured as Zoom, it remains a powerful tool for connecting across distance.

Because we have Google Enterprise for Education at Bennington, we can host an unlimited number of simultaneous meetings, and up to 250 simultaneous participants in each meeting. A

phone number is automatically added to each video conferencing meeting, but participants and you (the host) will also have the ability to connect audio through the conferencing interface.

The system can be used via the web on Windows and Mac computers at meet.google.com. Individuals connecting via a smartphone or tablet should download and install the Google Meet app from the Android or iOS (Apple mobile) app from the appropriate app store. If you have questions on how to find and/or install the app on your mobile, please contact the IT@Bennington Help Desk, helpdesk@bennington.edu, 802-440-4476.

The easiest way to initiate a Google Hangouts Meet is to <u>create a calendar meeting in Google Calendar</u>. You will need to <u>pull your course roster from Populi</u> and then paste the email addresses into the "Guests" field.

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Asynchronous (Not-real Time) Tools

Another option for instructors is to use asynchronous tools for their courses delivered in a remote format. These include, but are not necessarily limited to, using features of Populi, recorded lectures, and Google Drive to help create remote, interactive experiences for courses. We outline options in each below.

Assignments in Populi

If students will be submitting papers and projects, it may make sense to simply use the assignments feature of Populi as a sort of digital drop box. Please note that if your students will be uploading files of significant size (large graphics files, audio files, video files, 3D models, etc.), the assignments feature in Populi will not work; consider instead using Google Forms, or having your students share their files through their Google Drive folder. More information can be found at the links in <u>Appendix B: Useful Links and Resources</u>.

Discussion Boards

Populi has features that allow for both graded and ungraded discussion boards. If you would like to allow students to engage in a threaded, asynchronous discussion, these features may be useful. More information can be found at the links in <u>Appendix B: Useful Links and Resources</u>.

Lecture Capture

web camera recording, or both.

The College does not have a centralized lecture capture system. However, there are several methods instructors can use to record lectures, should this be useful to your instructional aims. One that is relatively easy to get started with is Screencast-o-matic, https://screencast-o-matic.com/. The free version is relatively minimally featured, but will allow you to record up to 15 minutes of recorded video as a screen scrape (recording your screen),

Another option for lecture capture is to use the <u>Record feature of Zoom meetings</u>. This option will allow you to use the many advanced meeting features of Zoom to record, including connecting to your iPad and screen sharing.

Regardless of which option you choose, you can then either store your recorded video to the

cloud on their servers, or download the file and share it with your students via a Google Drive folder, a private YouTube or Vimeo channel. Please do *not* load these into Populi, as we have limited storage in this environment. To explore these options, please contact the IT@Bennington Help Desk, helpdesk@bennington.edu, 802-440-4476 and ask to speak to Matt Vozzella.

Google Drive

Many faculty members will be familiar with the features and affordances of Google Drive. Several tools that are worth considering for use in an asynchronous (or semi-synchronous) model are:

- Google Docs: Use to create and share word processing documents. With advanced features for version management, as well as the ability to text chat live, there are many ways to use this tool.
- Google Sheets: Replicating many of the features of Excel, including the scripting language used for sophisticated calculations and dynamic data manipulation, Sheets can be used for collaboratively or individually collecting, analyzing, and sharing data.
- Google Presenter: Similar in some ways to PowerPoint, this natively digital presentation tool allows instructors and/or students to share slide-based, linear presentations with a group. The live text chat feature could be used to hold a live presentation without the cumbersome aspects or the technical complexity of a video conference.
- Google Forms: With a document upload feature that can be set to allow up to 1TB of
 collective file upload, this tool, which meets FERPA compliance for data security, can be
 used to collect larger file formats that won't work in Populi.

Adobe Creative Cloud

Adobe has made a campus-wide license for their Creative Cloud environment available to all faculty and students. Instructions for logging in and installing applications can be found in Appendix F: Logging into and Downloading Adobe Creative Cloud (CC) Apps.

General Network Support

As we move to a remote instructional and learning model, we have less control over the network connections that faculty and students will use to connect to one another. We will attempt to help anyone with network issues in your home; there are also several things you can do to troubleshoot your own environment if you are experiencing network issues. Please see Appendix K for network troubleshooting tips.

Student Resources

Students will need to take their cues from their professors as to what technology they will plan to use; however, it is likely useful to begin considering how you will connect to Google Hangouts Meet and Zoom should your instructors activate these tools for your courses in the coming days.

Useful Tools

Some tools that you may wish to familiarize yourself with are listed below. Links to additional information for some of these tools can be found in Appendix B: Useful Links and Resources.

Zoom

Zoom is free and available to students; please connect using your Bennington accounts. Our license allows all students to set up their own meetings as well as to attend course meetings. It is *strongly* recommended that you proactively authorize your Zoom account at your earliest convenience to avoid any issues with using this system should you need it for class or meetings. Please see Appendix C: Instructions for Authorizing Zoom and Creating Meetings at Bennington.

Google Hangouts Meet

Google Hangouts Meet is free for a consumer account, useful for synchronous group meetings at a distance. It is *strongly* recommended that you proactively authorize your Google Hangouts Meet account at your earliest convenience to avoid any issues with using this system should you need it for class or meetings. <u>Test your computer here</u>.

Skype

Skype is free for a consumer account and is useful for synchronous group meetings or one-on-one communications at a distance. Please note that Skype is not supported by the IT@Bennington team.

Maya

Students can request a free license of Maya for the remainder of the semester.

Google Drive tools and features

Google Docs

Use Google Docs to create and share word processing documents. With advanced features for version management, as well as the ability to text chat live, there are many ways to use this tool.

Google Sheets

Replicating many of the features of Excel, including the scripting language used for sophisticated calculations and dynamic data manipulation, Sheets can be used for collaboratively or individually collecting, analyzing, and sharing data.

Google Slides

Similar in some ways to PowerPoint, this natively digital presentation tool allows you to share slide-based, linear presentations with a group. The live text chat feature could be used to hold a live presentation without the cumbersome aspects or the technical complexity of a video conference.

Google Drive

With unlimited file upload capabilities, this is a way to store and manage large files with your peers and instructors.

Adobe Creative Cloud

This powerful suite of creative tools is now available to all students and faculty on their personal devices through the end of the semester. Please see <u>Appendix F: Logging into and Downloading Adobe Creative Cloud (CC) Apps</u> for instructions.

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Internet and Phone

Students may wish to avail themselves of some services that are being made available for students during the COVID-19 outbreak:

- Spectrum Cable is offering free service and installation to college students; call 1-844-488-8395 for more details or to schedule installation.
- Xfinity/Comcast has made access to their entire hotspots network free for the next 30 days. A map of locations can be found at https://hotspots.wifi.xfinity.com/.
- The Internet Essentials program may be worth investigating for students who qualify; more information can be found at https://www.internetessentials.com/.
- Google Hangouts can be used as a phone service on your computer if you have a network connection. See <u>Appendix E</u>, Using Google Hangouts as a Phone Service, for more information.
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Staff Resources

Staff will need to consider what they will do if they are encouraged or required to work from home rather than coming to their offices. The College encourages staff to think about this proactively, ensuring that all physical files and materials that they will need can be taken off campus if campus is closed.

Staff should assume that, if campus closes, all meetings will take place via phone and/or Google Hangouts Meet. Instructions for adding video conferencing via Hangouts Meet can be found in Appendix B: Useful Links and Resources.

All staff who use file shares (rather than Google Drive) should ensure that they have downloaded, installed and <u>configured OpenVPN</u>. https://docs.google.com/document/d/1k4dkz7oXAxoK6vHFojF3SgwVTK-KH6YSPIHsR3sTOFA/edit

Appendix A: Suggestions for Hosting a Live, Distributed Meeting

Regardless of whether you choose to use Zoom or Google Hangouts Meet, there is always the possibility of technical and organizational complexity with a live video conference. Below are some thoughts that may assist in creating a smoother experience for you and your students.

- 1. Set up a "test" meeting in advance of your live meeting, and encourage all participants (students) to login to test their hardware in advance of the class meeting time. If they have any technical issues, they should sort them in advance, either on their own or by contacting the IT@Bennington Help Desk, helpdesk@bennington.edu, 802-440-4476.
- 2. Decide in advance if you want students who have the ability to turn on their video camera. There are pros and cons to each. Pros are that video gives you the ability to see your students, and ensure that they are attentive and engaged. Cons are that video takes significant bandwidth, and if multiple students are connecting from a similar location via wifi, they may experience significant pixelation, video and/or audio delays, and other complications if they are sending their video.
- 3. As the meeting host, try to connect via ethernet (physical cable) if possible. It's always best for participants to connect via ethernet as well, although if students are connecting from their on-campus Houses, this may not be possible.
- 4. Connect to the audio bridge by phone for the video conference rather than connecting via the in-meeting voice features whenever possible, and encourage your participants to do the same. Audio is the most common issue that people experience in video conferences, and trying to send audio, video, and content from your computer can cause data delays and disruption. Note that only Google Hangouts Meet has audio bridge capabilities for students under our current license; Zoom disabled this feature recently due to increased use of their product -- now only "Pro" account, of which all faculty have been upgraded to, allows for audio bridging.
- 5. Realize that not all of your participants will have the same technology, and that some amount of technical complexity is likely. Explain to them that, rather than being late to class or delaying their participation, they should plan a fall-back of *only* listening by phone through the audio bridge if they run into technical problems the day of the video conference, and/or disabling their video feed to promote the content and audio in limited bandwidth settings.
- 6. Determine in advance how participants will interact with you and with one another, and ensure that you communicate those rules and expectations to your students. Both of our supported video conferencing systems allow for participants to speak (or to mute themselves, or to be muted) on the conference, and for them to text chat in a "back channel". Zoom has additional features, such as the ability to "raise a hand", and the ability to create sub-groups within the application. Given that this will likely be a new experience for you, you may wish to assign a participant in the class to "moderate" the back channel text, or limit or disable it's features, to ensure that you can move through your conference seamlessly.
- 7. Ensure that all participants know in advance how to mute and unmute themselves, and, if you are allowing participants to speak, ensure that they only unmute when they want to ask or answer a question or otherwise participate by voice.
- 8. Organize the class and materials in advance so you aren't fumbling around trying to find your materials during your live conference. It is also *strongly* advisable that you close

out of all non-relevant browser windows and applications. Remember that you will be showing the class your entire laptop directly to their devices, rather than projecting in a live class; ensure that all private student data and your personal information is non-identifiable and stored where students can not see it.

- 9. Decide in advance if you want to record your session, and ensure the system is set up appropriately. While it should be self-evident, you may wish to explicitly articulate to your participants that they should not record the video conference.
- 10. If connecting the audio via the computer use headphones/earbuds with a built in microphone if at all possible. This will reduce echo on both ends and provide clearer audio.
- 11. Choose your location carefully when using video conference. Avoid video conferencing outside to avoid light and sound pollution; set up in a well-lit room, but do not sit directly in front of the light, as this will create a "halo" effect and make it harder to see you.
- 12. If you are using an external webcam try to place the camera as close to the computer screen as possible. Avoid looking at the screen, and try to look directly into the web camera as often as possible, as this will give the impression of speaking directly to your participants.
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Appendix B: Useful Links and Resources

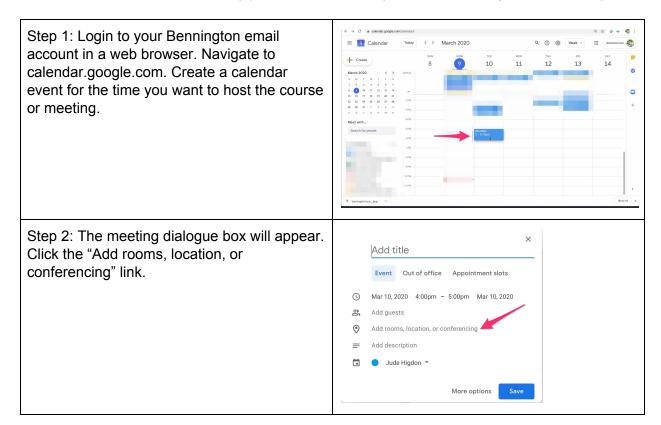
- Spectrum wireless free access and installation for P-12 and college students for up to 60 days: 1-844-488-8395.
- Populi Knowledge Base: https://support.populiweb.com/hc/en-us
 - Assignments feature: https://support.populiweb.com/hc/en-us/articles/223797467-Introduction-to-assignments-and-assignment-groups
 - Discussion board feature, ungraded: https://support.populiweb.com/hc/en-us/articles/223792547-Discussions
 - Discussion board feature, graded: https://support.populiweb.com/hc/en-us/articles/223797767-Graded-discussions
- Zoom support materials: https://support.zoom.us/hc/en-us/categories/201146643-Meetings
- Zoom system requirements: https://support.zoom.us/hc/en-us/articles/201362023-System-Requirements-for-PC-Mac-and-Linux
- Zoom accessibility features: https://zoom.us/accessibility
- Zoom in-meeting security features: https://blog.zoom.us/wordpress/2014/06/03/spotlight-security/
- Google Meet help: https://support.google.com/meet/?hl=en#topic=7306097
- Google Meet system requirements: https://support.google.com/meet/answer/7317473?hl=en
- Google Meet accessibility features: https://support.google.com/meet/answer/7313544?hl=en
- Inexpensive Headphone/Microphone combination for web conferencing https://www.amazon.com/dp/B07KJDNCY6/ref=pe 2640190 232748420 TE item
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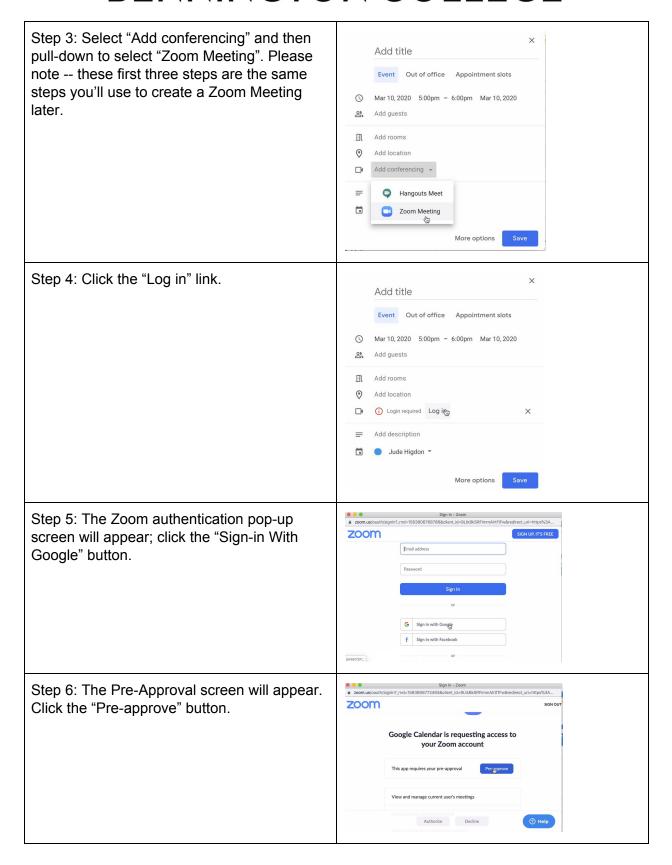
Appendix C: Instructions for Authorizing Zoom and Creating Meetings

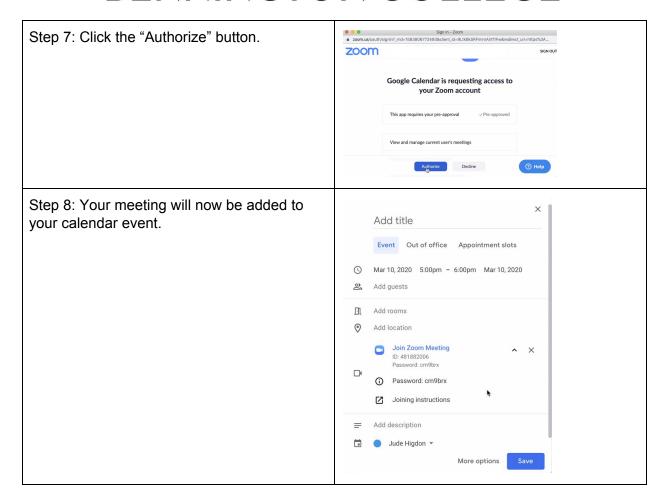
To use Bennington's Zoom license, you will first need to authorize Zoom to use your Bennington credentials. Please note: even if you have a personal Zoom account, for Bennington courses you *must* authorize Zoom through your Bennington license and create and access course and other campus meetings through this interface if you want support from the IT@Bennington team.

Authorizing Zoom to Use Your Bennington Account (One-Time Setup)

To authorize Zoom to use your Bennington credentials, please take the following steps. We have also created a <u>video showing you how to do this</u> if you prefer learning in that modality.





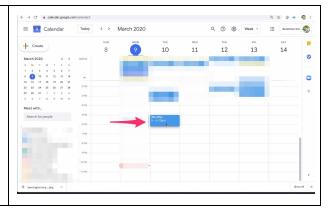


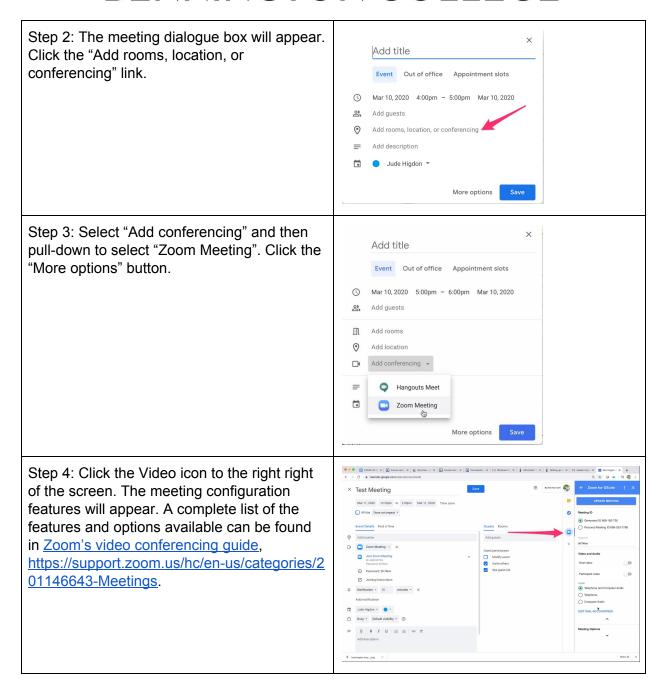
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Setting up and Configuring a Zoom Meeting

The discussion below assumes you have previously <u>authorized Zoom to use your Bennington account</u> to connect to a web meeting.

Step 1: Login to your Bennington email account in a web browser. Navigate to calendar.google.com. Create a calendar event for the time you want to host the course or meeting.





NOTE: Many instructors are interested in using the Breakout Rooms feature of Zoom. Setting this up requires an administrative step; please see <u>Appendix D: Setting up Breakout Rooms in Zoom</u> for instructions on enabling this tool.

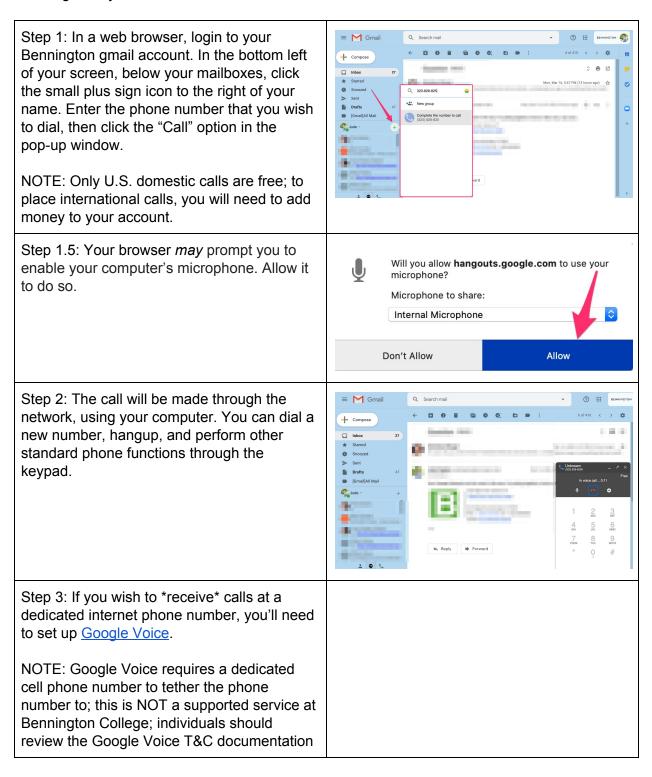
Appendix D: Setting up Breakout Rooms in Zoom

To use the Breakout Rooms feature of Zoom, you need to enable the feature in your Zoom account. Instructions follow.

Step 1: In a web browser, navigate to Sign In www.zoom.us. Click the "Sign In" link in the top right corner, then click "Sign in with Google". Sign in with your Bennington username and password. Sign in with Google Step 2: On the Zoom Account page, select "Settings" in the left navigation menu. Step 3: On the Settings page, scroll down the page to the "In Meeting (Advanced)". Click the toggle button to the right of the "Breakout Room" option. Step 4: When you create meetings after setting this option to active, you will see a "Breakout Rooms" option in the bottom of your meeting. Please see the Zoom documentation on how to use Breakout Rooms for more information.

Appendix E: Using Google Hangouts as a Phone Service

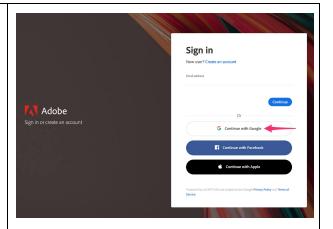
Google Hangouts can be used to turn your computer into an internet phone system. Instructions for using this system follow:



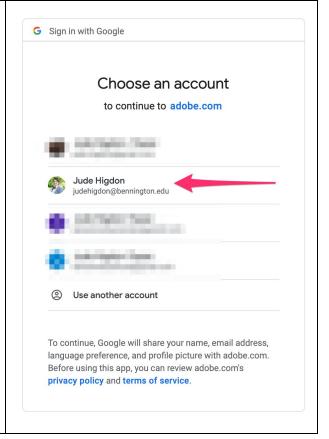
and make a personal choice as to whether to
use this system or not.

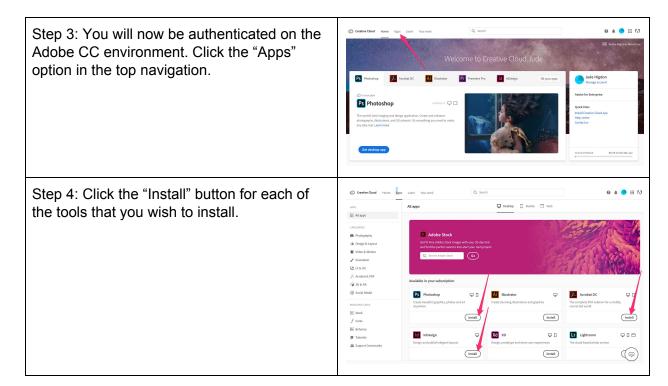
Appendix F: Logging into and Downloading Adobe Creative Cloud (CC) Apps

Step 1: In a web browser, navigate to https://creativecloud.adobe.com. Click the "Continue with Google" button.

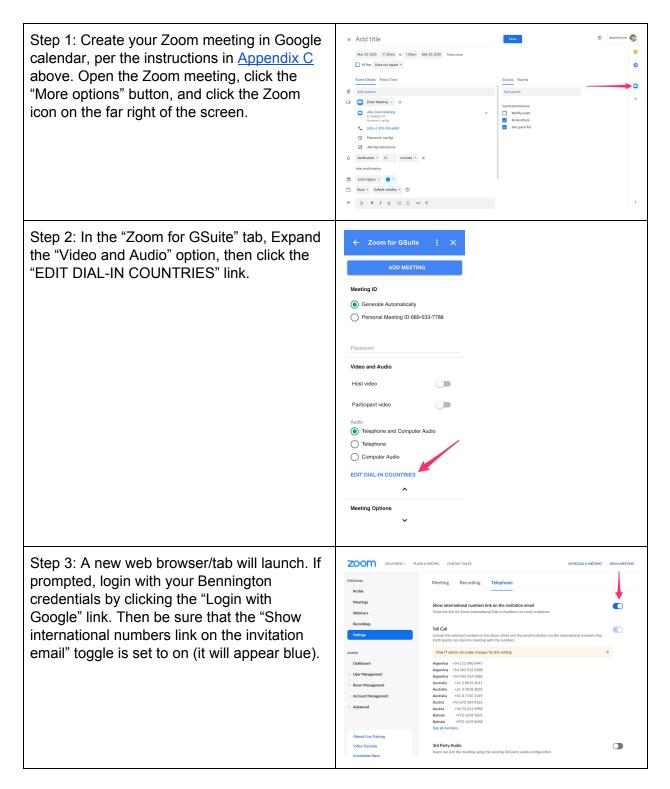


Step 2: Select your Bennington account. If it does not appear, click the "Use another account" option and login with your Bennington credentials.





Appendix G: Setting up International Dialing with Zoom



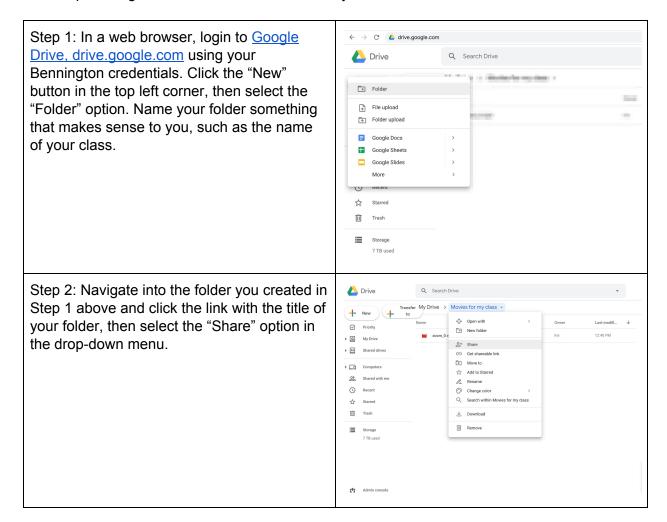
Appendix H: Integrating Zoom with Populi

Step 1: Login into Populi and navigate to your course. Click the "Conference" link in the left navigation.	BENNINGTON Lanua Na Proble May Course Contains Addres TMP 100: Intro to Zoom Conferencing Country Landows Indicate Search plants Alerts Solidors Foliage Foliage Controller Losses Dissolved Foliage Controller Losses Controller Contr
Step 2: Click the "Add a Conference" button in the top right.	BENNINGTON There My Profes Mo Caures Control Adving TMP 100: Intro to Zoom Conferencing (All a Certiverea) There are no conferences. Displaced Files Assignments Lossos Dissolates Conferences Conferences Conferences Reporting Conference Reporting Conferen
Step3: Set the parameters of your meeting; you can choose to include all students, or only selected students. Click the "Save" button.	Add a Conference Name Jude and Chris, Advising Meeting Description Start Time (optional) Time Limit (optional) Participants Selected students Check All Check None
Step 4: When you are ready to begin your meeting, click the "Begin Conference" link in your course.	

Appendix I: Creating and Sharing a Folder in Google Drive

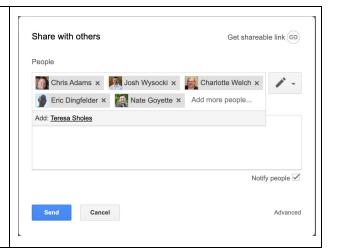
We recommend posting recorded Zoom meetings to a Google Drive folder and then sharing the folder with your class; you may have other uses for shared Google folders during this time. Setting up the Google Drive folder is a one-time process; once set up, you can simply record each Zoom session and upload it to the folder, and students will have access; this process is outlined in Appendix J.

To set up a Google Drive folder and share it with your students:



Step 3: Enter the names of the people you want to share the folder with in the "People" field of the "Share with others" window. You can also paste in all of your students' emails from your Populi Class Roster.

Click the "Send" button to send the link to each of the individuals in your "People" field.



Appendix J: Recording and Posting a Zoom Meeting

Once you've <u>created and shared your Google folder</u>, you are now ready to record and upload your recorded lecture.

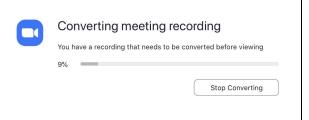
Step 1: Login to your Zoom meeting. Note that you must be the meeting host to record a Zoom session. Click the "Record" icon in the bottom right of the meeting control panel at the bottom of the screen. Then select the "Record on this Computer" option.



Step 2: When you are finished recording, click the Square "Stop Recording" icon. Note that your video will not process until you quit the meeting.

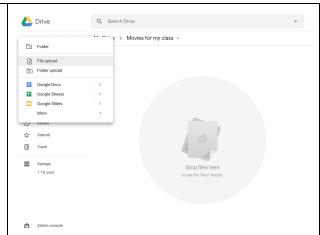


Step 3: When you quit out of your meeting, your video will process. This may take quite a while depending on how long your meeting was.



Step 4: In a web browser, navigate to the course folder in Google Drive that you have shared with your students. See Appendix I above for instructions on how to set this up.

Click the "New" button in the top left corner of the screen, then select the "File upload" option.

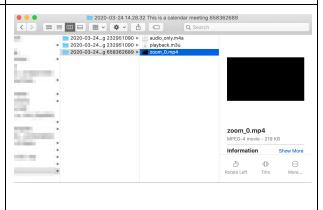


Step 4: Locate your recorded file. Your recorded video will save to a default location on your computer.

- Apple machines, the default folder is: Documents > Zoom > 2020-MM-DD...
- Windows machines, the default folder is:

This PC > Documents > Zoom > 2020-MM-DD...

There will be three files in this folder; select the one that ends with a .mp4 extension. Click the "Open" button. Your file will upload, and will be available to your students for download.



Appendix K: Preparing for Remote Learning with Your Home Network

Your internet connection is one of the most fundamental tools you have to empower you for teaching and learning remotely. Below are some tips for your network generally, as well as specific things you can do for our two major video conferencing systems, to help manage internet challenges in your home environment.

Network Prioritization

Below are a few things to keep in mind to ensure you maintain network prioritization during live video conference class time:

- Ask those sharing your network not to run other video conferences while you're attending a live class in Zoom or Google Hangouts.
- Avoid downloading, uploading, or streaming large files, such as YouTube videos or Netflix movies.
- Quit out of all applications, and close all browser tabs, that you will not be using during the live class meeting.

Optimizing for Video Conferencing

Below are some tips for optimizing your network experience, regardless of whether you are using Zoom, Google Hangouts Meet, or another video conferencing system.

General Network Guidelines

- Wired connections are better than wireless (WiFi or cellular) connections. Plug into ethernet if at all possible.
- WiFi connections are better than cellular (3G/4G/LTE) connections. If you can't plug into ethernet, try to connect by high speed wireless network.
- Plan ahead for video conferencing meetings, and as often as possible, join meetings from a location where you can use a fast, reliable, wired Internet connection.

Manage Your AV Inputs

- Mute your microphone when you're not speaking. When your microphone is on, the video conference software will devote part of your Internet connection to an audio stream for you, even if you are not speaking. Mute your microphone when you do not need it, and you will allow the software to use your Internet connection more effectively.
- Stop your webcam video when you don't need it. If your instructor or moderator is okay with you doing so, start your video only when you need to show yourself on webcam, and stop your video when it isn't needed.
- Call into the phone bridge. If you know you have a weak network connection, don't use the network for your audio connection; call into the phone bridge from a landline or cellular phone.
- Disable HD webcam video. Sending high definition (HD) webcam video requires more bandwidth than sending non-HD. Disabling HD video will free up more of your Internet connection for other parts of your video conference meeting. Instructions for doing this in both <u>Zoom</u> and <u>Google Hangouts Meet</u> below.

Manage your Computing Resources

- Close other, unneeded applications on your computer. Zoom meetings can demand significant memory and processing power from your computer. Closing other applications, ones you do not need during the session, will help Zoom run better.
- Avoid other activities that will steal bandwidth. Don't start other bandwidth-intensive
 activities just before, or during, a Zoom meeting. On your Zoom device—and as much as
 possible, on other computers and devices that share your Internet connection—avoid:
 - large downloads
 - large uploads
 - streaming video (e.g. Netflix, Hulu, YouTube)
 - cloud backups (e.g. Carbonite, CrashPlan)
 - cloud file synchronizations (e.g. OneDrive, Dropbox)
 - other high-bandwidth activities

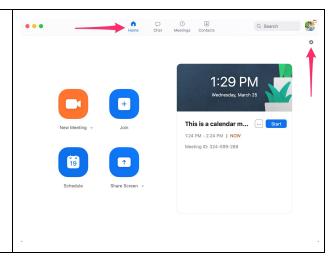
Communicate with the instructor or moderator of your video conference meeting.

If the best Internet connection you have for your video conference is slow, such as a weak cellular data connection, let the host know ahead of time and make a plan for what you'll do if you have network connectivity issues.

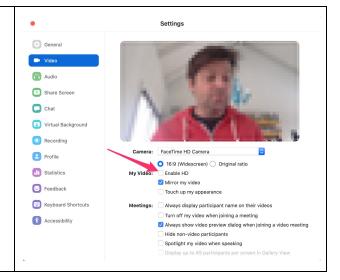
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Turning off HD Video for Zoom

Step 1: Launch the Zoom application on your computer. Click the "Home" option at the top of the screen, then click the "Settings" icon on the top right of the screen.



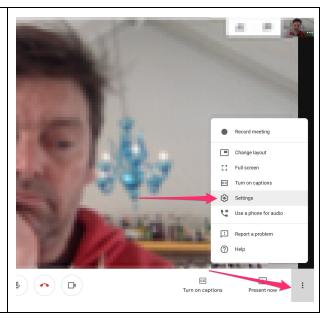
Step 2: Select the "Video" option in the left menu, then deselect the "Enable HD" option. Close the settings window.



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Turning off HD Video for Google Hangouts Meet

Step 1: Launch a Google Hangouts Meeting. You can create one in your Google Calendar if you need a test environment. Click the three vertical dots at the bottom right of the meeting screen, then select the "Settings" option.



Step 2: Click the "Video" option at the top right of the window. Set the "Send resolution (maximum)" and the "Receive resolution (maximum)" to a throttled down option, if you are having network challenges.

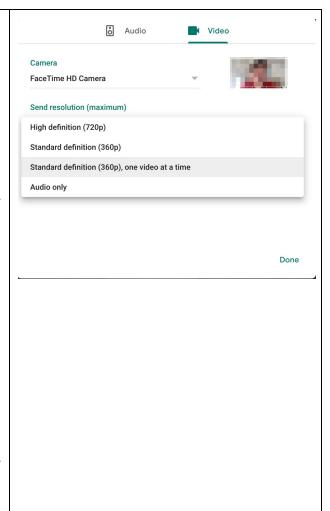
Send resolution (maximum)

- High Definition (720p)—(Available on computers with a quad-core CPU or higher) Uses more data, but your camera will send a better quality picture.
- Standard definition (360p)—Uses less data, but your camera will send a lower quality picture.

Receive resolution (maximum)

- High Definition (720p)—(Available on computers with a quad-core CPU or higher) Uses more data, but you see a higher quality picture.
- Standard Definition (360p)—Uses less data, but you see a lower quality picture.
- Standard Definition (360p)—(single feed) To save more data, the other participants' thumbnails turn off.
- Audio Only—To use the least amount of data, you won't see any video.

Click the "Done" button.



Appendix L: Bandwidth Requirements for Video Conferencing

The bandwidth used by Zoom and Google Hangouts Meet will be optimized for the best experience based on the participants' network. It will automatically adjust for 3G, WiFi or Wired environments.

Checking Your Bandwidth

You can easily check your bandwidth online; one tool that you may find useful for doing so is https://www.speedtest.net.

Below are some standards for different types of user types in web conferences. Please map your bandwidth to the setting below; if you fall below these minimums, you may have trouble with your connections.

Recommended bandwidth for meetings and webinar panelists:

- For 1:1 video calling:
 - o 600kbps (up/down) for high quality video
 - 1.2 Mbps (up/down) for 720p HD video
 - Receiving 1080p HD video requires 1.8 Mbps (up/down)
 - Sending 1080p HD video requires 1.8 Mbps (up/down)
- For group video calling:
 - 800kbps/1.0Mbps (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
 - o For audio VoiP: 60-80kbps
 - o For Zoom Phone: 60-100kbps

Recommended bandwidth for meeting and webinar attendees:

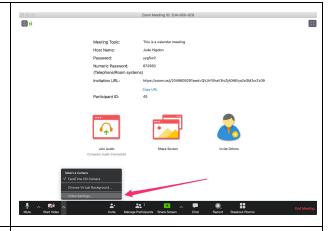
- For 1:1 video calling: 600kbps (down) for high quality video and 1.2 Mbps (down) for HD video
- For screen sharing only (no video thumbnail): 50-75kbps (down)
- For screen sharing with video thumbnail: 50-150kbps (down)
- For audio VoiP: 60-80kbps (down)
- Return to Table of Contents -

Appendix M: Video and Audio Troubleshooting Tips

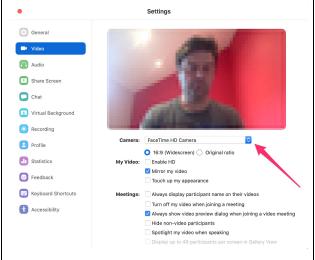
This appendix discusses how to troubleshoot video and audio issues.

Troubleshooting Video Issues

Step 1: Launch the Zoom Meeting. Click the upward pointing arrow to the right of the "Start Video" button at the bottom left of the screen, then select the "Video Settings..." option.



Step 2: Ensure that the camera you are trying to use is selected in the "Video:" dropdown field. For integrated webcams this will usually be listed as "integrated camera" or "FaceTime HD camera" in the drop down. You may also toggle the other options to see if that resolves the issue.



Step 3: If that does not resolve the issue and you are on a Windows machine, skip to step {{NNNN}}. If you are on an Apple laptop or desktop, click the Apple logo in the top right corner of your computer screen, then select the "System Preferences..." option.

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Addressing Audio Issues

There are three ways to address issues with your audio: <u>troubleshoot your audio settings</u> in Zoom and in your computer, <u>dial into the phone bridge directly</u>, and <u>switch to the audio bridge</u> from the Zoom meeting. We outline these strategies below.

Troubleshoot Audio Settings

If you have logged into the Zoom meeting and connected using computer audio, but you are having trouble hearing or others are having trouble hearing you, you may need to check your audio settings.

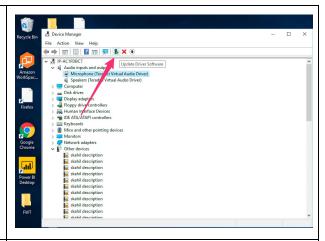
Step 1: Launch the Zoom Meeting. Click the upward pointing arrow to the right of the "Mute" button at the bottom left of the screen. Select the appropriate microphone for audio input (usually the internal microphone) and speakers for output (usually the internal speakers).



Step 2: If that does not resolve the issue and About This Mad you are on a Windows machine, skip to step App Store... 6. If you are on an Apple computer, click the Force Quit... Apple logo in the top left corner of the computer screen, then select the "System Preferences..." option. Loa Out Jude Hiadon. • • • • (> | | ||| Q Search Step 3: Select the "Sound" speaker icon in System Preferences the "System Preferences..." window. JUDE A HIGDON-Topaz B **3** 18 **** F FUSE Select PDL Step 4: Check both the "Input" and "Output" Q Search tabs to ensure that they are set to the appropriate sound options (usually "internal Select a device for sound output speakers" and "internal microphone"). These Internal Speakers Built-in should match the settings you chose in Step Soundflower (2ch) Soundflower (64ch) 1 above. TROLL CAVE AirPlay Settings for the selected device: Balance Output volume: Show volume in menu bar

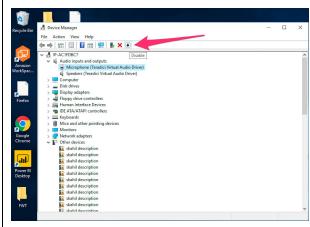
Step 5: If this does not resolve the issue, you may wish to turn off your bluetooth to ensure you're not inadvertently connected to another bluetooth device. Click the Bluetooth icon in the top right of your screen, then select "Turn Bluetooth Off". MGPOW CONLING Step 6: On a Windows machine, select the audio speaker icon in the bottom right corner of the screen. Ensure that the volume is turned up on your speakers. Speakers (2- Realtek High Definition Audio) 62 口》 12:14 PM J (6 (1) 10 Step 7: In the same menu, ensure that the appropriate audio output is selected. This should match the option you chose in Step 1 Select playback device above. Speakers (2- Realtek High Definition Audio) Headphones (VMO-016 Stereo) へ 🌡 🦟 (か) 🖅 ENG 12:18 PM Step 8: If this doesn't resolve the issue, go to the search menu in the bottom left of your screen and find "Device Manager". Select and open the "Device Manager: Control Device Manager panel" option. ☐ Open D device manager 計 🔚 🐸 刘 🗔 🜣

Step 9: Select the "Audio inputs and outputs" option. Then select the microphone that you want to use; note that this should be the same icon that you selected in Step 1 above. Click the "Update Driver Software" icon and install any driver updates. Repeat this step for the speakers that you want to use for audio output.



Step 10: Still in the "Audio inputs and outputs" option of the Device Manager, select the microphone that you want to use and toggle the "Disable" icon, first off and then back on. Repeat this step for the speakers that you want to use.

NOTE: You will likely need to restart your computer to ensure that your drivers and toggling is effective.



Step 11: If the above does not resolve the audio issues, you may wish to switch to the phone bridge in Zoom, and then contact the IT@Bennington Help Desk.

Call: 802-440-4476

Email: helpdesk@bennington.edu

Virtual Help Desk: <u>bit.ly/bennvirtualhelpdesk</u>

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Switch to the Phone Bridge

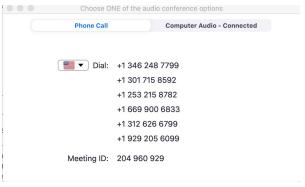
If you have connected to the Zoom meeting and chose the "Join with Computer Audio" and are experiencing audio issues, you may wish to switch to the phone bridge.

Step 1: From the active Zoom meeting, click the downward-pointing arrow to the right of the "Mute" speaker icon. Select the "Switch to Phone Audio…"



Step 2: Select one of the dial-in numbers from the list, and dial in with the Meeting ID. Note that you may be able to <u>dial-in using</u>

<u>Google Hangouts as a phone</u> to avoid fees or charges to your personal phone bill.

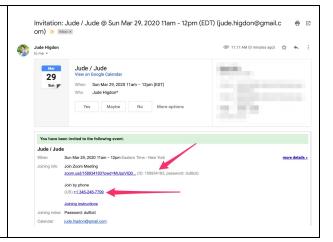


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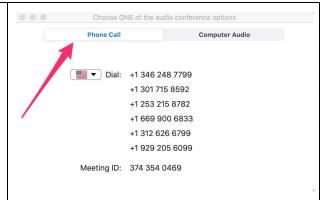
Dial Into the Phone Bridge

If you know you have slow internet, you may wish to proactively dial into the phone bridge, rather than connecting with audio on your computer.

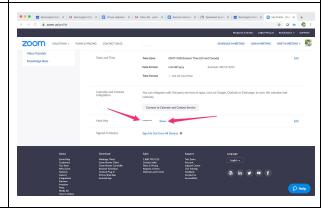
Step 1: If you have the original email invitation for the Zoom meeting, you can simply dial into the phone number sent by that invitation. Note that you will need the meeting ID number to join by phone.



Step 2: If you do *not* have the original email, launch the meeting in Zoom and select the "Phone Call" tab at the top of the audio conference screen. Dial in using one of the phone numbers and the Meeting ID. Note that you may be able to dial-in using Google Hangouts as a phone to avoid fees or charges to your personal phone bill.



Step 3: If you are the meeting host, you will also need to type in your host key to initiate the meeting. This step will *not* be necessary if you initiate the meeting through the Zoom video conference interface. Login to Zoom.us using your Bennington credentials (use the "Login with Google" button) and navigate to the bottom of the "My Profile" page. Your personal Host Key is hidden; click the "Show" button to reveal it.



Appendix N: Zoom-Bombing

Zoom-bombing is when individuals who are not invited show up to your online meetings. This can take benign and malicious forms, as outlined in several media pieces (see, for example, <code>Buzzfeed</code>).

Zoom meetings at Bennington College are more secure than standard Zoom meetings, because they are integrated through our Single-Sign On (SSO) credentials, and are therefore less vulnerable to Zoom-Bombing. If you create meetings according to the instructions in Appendix C, it becomes much more difficult for non-invited guests to attend your meetings. Ensure that meeting participants, such as students, don't share the meeting ID and password with anyone not enrolled in the class or otherwise authorized to attend the meeting.

That being said, there are ways around any security system, and Zoom-Bombing is a possibility. There are several additional steps you can take to help protect yourself from this potentiality. Zoom has published a video outlining their recommendation for protecting your meetings from Zoom-Bombers. To be clear, these choices will limit potential interactions between and among participants, and should be weighed against those sensitivities. We outline several of these strategies below that meeting moderators may wish to take to help protect their meetings if Zoom-Bombing is a major concern.

- Tell meeting participants not to share their meeting password credentials with anyone not invited to the meeting;
- Use the <u>Waiting Room</u> feature; This can be enabled with the "Security" button in the main Zoom toolbar in the Zoom app
- Monitor your attendance list and <u>quickly remove anyone</u> who you don't recognize or who shouldn't be there;
- <u>Limit screen-sharing to the Host</u> until/when you need for a participant to share their screen; This can be enabled with the "Security" button in the main Zoom toolbar in the Zoom app
- Set your Zoom meetings to Mute Participants on entry, configurable in the <u>Meeting</u> <u>Configuration tab;</u>
- Proactively <u>Mute All participants</u>, which will prevent anyone in the meeting from unmuting themselves;
- Disable the <u>chat feature</u>, or set it to Host only so that all chat messages go to you and not the entire class; and/or
- Lock the meeting once all participants have joined. This can be enabled with the "Security" button in the main Zoom toolbar in the Zoom app

Appendix O: Position on Zoom Security

Recently, there have been media reports about the security of Zoom. There are, from our perspective, three primary ways in which one can analyze this issue: technological security, secure use and practice within the tool, and data privacy by the company. We discuss each briefly below.

Technological Security

By technological security, we mean the security of the tool itself: whether a malicious actor can circumvent the security features built into the tool set of a given piece of hardware or software. To our knowledge, there are no major security concerns with regard to the technological security of Zoom at this time. The software has not been "hacked". Used in a secure way (see Appendix N), the system, from our understanding, remains secure.

Secure Use and Practice

Any security system can be circumvented if not used properly. You can purchase the most uncrackable safe in the world, but if you leave the door open and don't lock it, it is relatively easy to get at what's inside. There are some common-sense behaviors that can significantly harden you and your Zoom meetings as a target against unwanted guests and malicious actors, with varying levels of impact on the types of interactions available to your guests. See Appendix N for more details.

Data Privacy by the Company

Part of any agreement with a software company is the integration of some amount of our private data with their systems. Zoom has an <u>explicit statement</u> that they do not sell private data. That being said, there has been some concern with the company's adherence to this policy (see for example, <u>Business Insider</u> and <u>CBS News</u>). The company has issued a <u>mea culpa on the official Zoom blog</u>.

We hope this is clarifying as to the issues as we understand them at this time. Please direct questions to IT@Bennington Help Desk, helpdesk@bennington.edu, 802-440-4476.

Appendix P: Zoom Licensing Prioritization and Distribution

The College has purchased and distributed a limited number of Zoom Pro licenses. The primary distinction between a Zoom Basic license and a Zoom Pro license is that meeting hosts with Zoom Pro license have no time limit on their meeting length and a phone bridge is automatically added to a meeting for Zoom Pro license users.

Pro licenses were prioritized in this order:

- 1. Faculty members and instructors;
- 2. Staff members who teach;
- 3. Staff who regularly schedule and manage events for departments and discipline areas; and
- 4. Senior staff

All licenses under our current contract have been distributed at this time and no additional licenses are available. <u>Google Hangouts Meet</u> remains a fully-featured, enterprise video conferencing solution with no time limit restrictions that can be used by the faculty, staff, and students of the College.

Appendix Q: FAQ

I am a Staff member...

Q. Is there a time limit on Zoom meetings? Is there a time limit on Personal Room meetings?

There is a 40-minute time limit for Zoom meetings hosted by staff members. We suggest using Google Hangouts Meet for meetings hosted by staff that will be longer than 40 minutes. There is no time limit for meetings in a personal room if there is only one other participant; if more than one participant joins, there will continue to be a 40-minute limit.

Q. If a person with a pro account creates a meeting and assigns host duties to a staff member without a pro account, can the person with a pro account join a different meeting at the same time from a different device?

A user cannot open another meeting using their Pro license, nor can they initiate a meeting, make someone else without a pro license the host, and drop out of the meeting. The 40-minute time limit is tied to the meeting host's license level.

Q. My internet connection at home is unreliable. Does the college have any wifi hotspots available for me to use?

At this time, the college is not providing faculty members with wifi hotspots. If you believe you have an extenuating circumstance that necessitates the use of a hotspot, please contact Heather Faley in the Human Resources department.

I am a Faculty member...

Q. My internet connection at home is unreliable. Does the college have any wifi hotspots available for me to use?

At this time, the college is not providing faculty members with wifi hotspots. If you believe you have an extenuating circumstance that necessitates the use of a hotspot, please contact Jon Bullock in the Provost and Dean's office.

I am a Student...

Q. I am not able to reliably video-conference. Does the college have a device I can borrow?

Contact helpdesk@bennington.edu requesting a device. Please include the year, make, model, and operating system of your current device if applicable.

Q. My internet connection at home is unreliable. Does the college have any wifi hotspots available for me to use?

There are a limited number of wifi hotspots available for students to use. Please contact helpdesk@bennington.edu requesting a hotspot. However, please be aware that the college's ability to meet this request is based on available inventory.