

Planning an Online Course

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This document provides tips and techniques for planning and delivering an online course. The advice was collected from a large number of faculty and students who have experience with online courses. It will be updated as we get additional feedback and ideas.

Note: this document does not address hybrid classes, which mix in-person and remote participants.

Planning for an online course requires a bit of a redesign effort to account for some of the differences in the student experience and in delivery of technology compared to in-person courses. This document covers some of the major considerations for modifying your course, and it is divided into the following sections:

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Student Experience

There are potential challenges that your students could face in the remote environment:

- **Location.** Some students may be located off-campus and face time zone differences that could reduce their ability to participate in synchronous video meetings or to take exams at set times.
- **Health.** Be mindful of student illnesses or family emergencies, as these are still more frequent than usual.
- **Focus.** Students working from home may face more distractions from family interactions or connectivity

issues.

- **Access/Resources.** Students may lack the ability to print documents such as assignments and exams.
- **Logistics.** On-campus students may face timing issues in transitioning from in-person classes to online classes (and vice versa).

These changes to the student experience could affect your deliverables in the following ways:

- **Exams will have to be online**, un-proctored, and open book. They may need to be offered at multiple times due to time zone differences or make-up exam and other accommodation requests.
- Group work could be impacted by lack of student co-location, time zone differences, and illnesses. Group presentations may be more difficult to arrange due to these factors.
- Class participation during synchronous **video conferences** could be more difficult than usual. Some students will be unable to attend synchronous sessions. Students that do attend may have connectivity issues that limit their ability to be on camera.

Each instructor will likely have a different approach for dealing with these changes. As a result, students will face much more variety in course delivery than usual. Communication will be essential! Ensure that your grading policies and assignment expectations are clear in your syllabus. Also, be prepared to send frequent emails to students and/or announcements through Canvas (possibly before each class).

You should also be clear in your syllabus about policies for student absences. For attendance or homework, you may want to give every student one or two **free passes** to miss class without a grade penalty. For exams, you should make clear whether you will require the student to take a make-up exam on the official university make-up exam date (which is in the next semester). In any case, all students should report their illnesses or absences to the MBA and Undergrad program offices so they can be tracked in case there are any contact tracing issues. You should always require that the program office confirms the student's absence rather than just working from their emails.

Once you get your class list, we recommend polling your students to get a sense for their situations. You can easily create a poll using Canvas (typically ungraded survey) or your preferred survey tool (Qualtrics, etc.). Suggested questions include:

1. Will they be on campus?
2. If not on campus, what is their time zone difference?
3. Will they have access to a reliable high-speed internet connection?
4. Will they be limited in their ability to access various platforms that you might use (e.g., Canvas, Zoom, YouTube, Google apps, Skype, etc.)?
5. What are their major concerns about engaging with the course?

You should also consider soliciting feedback from students during the term. Some faculty may be inexperienced in online teaching (compared to in-person teaching), and mid-term feedback could provide useful guidance on course corrections. The MBA and Undergrad program offices have formal mid-term feedback forms. Alternatively, you could seek feedback through more informal surveys or discussions with small groups of students.

Delivery Format

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Wharton faculty teach using a wide variety of methods. There is no one ideal way to teach our students in-person, and there is no one ideal way to teach online. Based on student and faculty feedback, there are two methods that work well—synchronous-only teaching and blended teaching—and one that generally does not—asynchronous teaching.

Note: Regardless of the delivery format, for online courses, **synchronous sessions should always be recorded**

and posted to Canvas. This policy allows remote students who cannot attend the sessions to have access to the course material. You will be able to restrict the amount of time these videos are available on Canvas. Students will receive warnings about unauthorized use of the videos. Even so, a good guideline is to never say anything during a synchronous session that you wouldn't want to show up on YouTube!

Synchronous-Only Teaching

The synchronous-only option involves teaching all sections of your course via a video meeting during your regularly scheduled class times.

Advantages:

This method requires fewer changes to adopt your course material to online teaching and provides students a similar amount of in-class engagement time with you and other students as they would get during an in-person session.

Disadvantages:

Students have difficulty maintaining engagement for 80 minutes in a video meeting and may miss part of the material if they have temporary connectivity or work-from-home disruptions.

If you choose this method, you still may want to modify how much material you cover and how you engage with students. See the section **Class Management** below for details.

Blended Teaching

The blended option involves pre-recording 15-30 minutes of videos for students to watch prior to class followed by 50-60 minute synchronous sessions **via a video meeting** during your regularly scheduled class times. The pre-recorded videos cover basic material and the synchronous sessions involve more advanced material, discussions, or exercises. The synchronous session should be at least 50% of the normal session length to avoid student dissatisfaction about lack of faculty engagement.

Advantages:

- Students are able to engage more completely for the shorter synchronous session.
- Students have a chance to digest pre-recorded material before live sessions.
- Remote students feel less disadvantaged because part of the course is delivered the same way to all students.

Disadvantages:

- Requires more advance work by faculty to plan delivery of material (which may be difficult to split up logically) and to record videos.
- There is less time for synchronous engagement.
- Students may skip synchronous sessions if they feel pre-recorded material is sufficient.

Video Resources:

- For a video on tips for blending asynchronous and synchronous teaching, see [this resource](#).
- If you want to record short videos, Panopto records videos in an easy-to-use, free format that **directly uploads to Canvas**. For tips on using Panopto, see [this resource](#).
- If you want to record longer videos, **Camtasia** allows you to edit the video, splice together multiple clips, and layer on animations or other effects. You will have to buy this software. For tips on using Camtasia, see [this resource](#).

Asynchronous Teaching

This option involves pre-recording all of your course material and hosting only virtual office hours, without a synchronous session. Alternatively, this option could involve delivering one synchronous session and requiring the other students to watch the recording of it.

We strongly advise against this approach for the entire course. Students are generally unhappy with this approach because of the lack of interaction and engagement; students have said they felt cheated that they were paying full tuition for **Coursera MOOC** classes. However, this approach could be used sparingly to replace certain class sessions, especially later in the semester when the students know you better. See the **Blended teaching** section above for tips on recording videos.

Class Management

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Every facet of course delivery – pre-class prep requirements, in-class delivery, out-of-class interactions – must be reconsidered when moving to an online format.

For an overview video on switching to online teaching, see [this resource](#).

For instructors teaching undergraduate students, the Wharton Dean's Undergraduate Advisory Board has produced a **White Paper** on best practices for online and blended learning: [click here for an executive summary](#) and [here for the full White Paper](#).

Student Prep for Class

Students will face a large variety of platforms and interaction styles in their courses. Thus, you should communicate with students frequently about your expectations, including specifying the following:

- Required pre-class prep.
- Material to have handy during the synchronous session.
- Norms for interactions and questions during the video conferences.

Because case discussions can be more disjointed online, some faculty provide case-specific guides to highlight the aspects of the case on which the discussion will focus during the synchronous session.

Another method for guiding pre-class prep is to create pre-class **quizzes** on Canvas.

- These quizzes can have auto-graded multiple-choice questions, with multiple attempts, to check the students' knowledge of the basic facts covered in their pre-class material.
- They can also be used for students to provide short open-ended answers to key case questions or prompts from the pre-class reading.
- Some faculty use the responses from the quizzes to warm call students during the video conference.

Setting up your course requirements as Canvas modules can make it clearer to students how they should prepare for class. For a video on how to use Canvas modules, see [this resource](#).

Student Participation During Video Meetings

It is difficult to cover the same amount of content virtually as in person. Student questions and answers all involve a bit of delay, whether spoken or on chat. Students have difficulty staying focused due to Zoom fatigue and distractions in their environments. Some students will need more transition time if they have in-person and virtual

classes back-to-back. Thus, you should try to remove some material from the synchronous video meeting to better manage the time.

Student participation is the most difficult aspect of an online course. It may take some trial-and-error to find the right approach for your material and for your teaching style. Here are some considerations:

- Most students are reluctant to interrupt to ask questions orally. You need to establish norms for whether and how a student could do so.
- There are **raise hand** features in the video meeting platforms, but you will need to make sure you have the correct window displayed.
- Requiring students to be on camera at all times involves a trade-off. Having students visible provides a more interactive experience for everyone, and it is a good default norm for the class. However, some students may have bandwidth issues where they need to mute video to get a better connection.

Options for asking questions to the students in a case discussion:

- **Cold calling** is generally more effective than asking for volunteers because many students are reluctant to jump in to speak on the video meeting. Follow usual best practices on cold calling: establish the norm and stick to it, and consider allowing students to opt-out in advance if it is not a good day for them.
- **Warm calling** based on pre-class responses on quizzes or discussion boards allows some control over the variety of comments you elicit and ensures that you are calling on students that are prepared to participate. Some faculty have student teams sign up on a Google doc to volunteer in advance for leading parts of the discussion.
- **The chat feature** allows students to send short text answers through the video conference platform. You can read aloud the answers that help move forward the discussion and call on certain students to elaborate their answers. You can also give participation credit for everyone that chats a response.
- **Breakout rooms** can be used during class time to have small group discussions. When the class reconvenes, the instructor calls on a group leader to report the discussion. **Breakout rooms are discussed** further below.

Options for when students want to ask you questions:

- Chat questions can be effective because they let you pre-screen the questions you answer. However, chat questions are often delayed due to typing time. You may want to pause at natural stopping points and address chat questions then (as opposed to trying to address them as you see them).
- Some students will want to direct-message chat questions to avoid asking them publicly. This is an effective way to get more sensitive questions or comments into the discussion. You will need to ensure that the chat is a DM first, and, as a rule of thumb, don't mention the student's name.
- One effective chat technique is having students send a single letter through chat (e.g., Q for question, C for clarifying comment) and calling on the student when you see the letter. That allows students to ask their question when you are still on the topic, but of course, you can't screen the questions.

Options for Polling

Polling through **Poll Everywhere** or the native polling function in the video meeting greatly increases student engagement. Poll Everywhere allows polls to be integrated into a PowerPoint presentation by downloading a plug-in (or you can just display the website). All faculty can **register for a Poll Everywhere account** under the University's license; be sure to use the @upenn.edu form of your Penn email address when registering. If you create a group for your course within Poll Everywhere, and then have your students also register using @upenn.edu addresses, then you can track student participation in the polls.

Mixing up the pedagogy during the sessions is an effective way to increase student engagement (i.e., use a combination of polls, discussions, exercises, break-outs, and lecture). However, some faculty do caution against using the same formula

for every class session, so the order and types of activities across sessions should be switched, as well.

Hosting a Video Meeting

Teaching with video requires a new set of skills in terms of managing what you display to your students and in transitioning between material. You should practice with a TA or colleague before your first class. You can record the practice session and watch it back to see what the student sees. It may take a few classes before you feel comfortable with the mechanics.

One helpful technique is to have a second computer or tablet set up near you. You are not able to see what the students see when you are sharing documents during the video meeting. Also, you may not be able to see chat if you are running a PowerPoint presentation. Thus, having an additional screen will allow you to see the student view of your presentation and features like chat or **raise hand**. If possible, you could have a TA or other member of the teaching team manage the chat during your class session, as well.

For a video on advice about lighting, positioning the camera, and improving the audio for your online delivery, see [this resource](#).

Screen Sharing

The most important function in the video meeting is using Share Screen to display any documents on your computer to the students on the video meeting. There are two options:

- **Share your whole screen:** This option will display whatever is on your desktop. You can quickly move between documents and you can show two documents at the same time – e.g. have PowerPoint on one half of the screen and Excel on the other. Keep in mind that with this option, students can see any file on your desktop when all docs are minimized and could potentially see other distractions like email previews that pop up. You can always manage your device's notification settings to prevent this from occurring.
- **Share a specific program:** This option allows you to share only a specific program you select (e.g., PowerPoint, Excel). The students will only see that program, but it is a bit slower to move between docs. You also can only display one program at a time; and if you accidentally bring up another program that is not being shared, the students will see a grey screen.

Sharing video or audio played on your computer is also possible through screen sharing. When you play a video during a session, you must check the **share computer audio** button for the students to hear your computer audio. Even so, keep in mind that the video playback may be low quality for students with bandwidth issues. One alternative is, if the video is on YouTube, Canvas, or a separate resource, send a link through chat at the same time as you play it so students can stream it from their computer directly.

You may also want students, TA's, or guest speakers to share their screens at some point. You should make sure you identify the setting to do so in advance of the meeting (your meeting might be set up to disable others from screen sharing). You may also want to toggle the setting on and off to prevent unauthorized screen sharing. Finally, you should ask the participants to practice with others in advance so they are familiar with the interface.

Breakout Rooms

Breakout rooms work well for small group activities, discussions, and exercises. They can be set up in advance, set up manually while teaching, or created randomly while teaching. Based on experience, here are some suggestions for using breakout rooms in your class:

- **Limit groups to a few students**, especially if the group is not the students' usual learning team. Many faculty

recommend limiting groups to three to four students.

- **Keep the sessions short** by using smaller exercises or prompts. The students will lose focus with long sessions, and long sessions will reduce your time to debrief.
- **Make instructions for breakout activities very clear.** Once the students leave the main room for the breakout rooms, they will no longer see the slides with instructions. It helps to put instructions in writing (as opposed to verbal instructions that they may forget) and make them available on Canvas.
- **Broadcast messages to breakout rooms** (e.g., to notify them on the time remaining for the breakout) and drop into the breakout sessions to check on the students.
- **Use pre-assigned breakout rooms only if you require students to attend their registered sections.**

For a video on how to use breakout rooms, see [this resource](#).

Free-form Writing

There are native features in the video meetings that allow you to free-form annotate or write on the displayed material.

- The **Whiteboard** feature brings up a virtual whiteboard on which you can write student points or draw out an example similar to writing on a physical whiteboard. Be aware that writing is not easy to do if you have to use a mouse or trackpad; practice before class to make sure you are happy with the functionality. Also, another participant may be able to activate a whiteboard and erase what you are doing.
- The **Annotation** feature allows annotations on the screen; e.g., draw on your slides for emphasis. Again, the writing is not easy with a mouse or trackpad.

One limitation is that you cannot easily save the whiteboard or annotations for later; you would need to take a screen shot.

Some faculty use external apps like [Notability](#) or [GoodNotes](#) to annotate during sessions and to save the end product for students to download later. These apps work well with a tablet. For a video on using annotation apps on a tablet, see [this resource](#).

TA Participation

Teaching during a video meeting requires a different set of skills for juggling inputs (e.g. slides, student questions, tech glitches) than in-person teaching. Many faculty find it helpful to have a TA on their video meetings. The TA can moderate chat and look for raised hands (either actual or virtual). They can also manage chat with students related to technical issues. Some instructors suggest having the TA run the PowerPoint slide show from their computer so the instructor can focus on other aspects of the video meeting (although, other instructors found this difficult to pull off smoothly). The TA can also step in and talk to students if you have connectivity issues and have to drop off for a couple of minutes.

Guest Speakers

Guest speakers may be easier to find for an online class given the lower cost of joining a video meeting. However, guest speakers may have their own connectivity issues that impact their talks.

- Have the speaker record part of their talk in advance, and then do live Q&A after you show the video.
- Interview the speaker on a recorded video meeting and play excerpts prior to live Q&A.

If you want to open your guest speaker session to a wider audience, please [contact Wharton Computing](#). You may need to use a different version of the video conferencing software if the number of participants is large.

Even if a guest speaker cannot join live, some faculty find that the students appreciate pre-recorded videos of experts that the faculty played during the video meeting.

Office Hours and Out-of-class Interactions

All office hours should be available in a virtual setting. Student access to buildings may be limited to allow in-person office hours, and many students will be remote. You should decide whether to have a set time for virtual office hours or to schedule these by appointment (or both).

- **A set time for virtual office hours** allows many students to participate and to stay in the room to listen to other students' questions, providing some economies of scale in helping students. Alternatively, some faculty use the **waiting room** feature of Zoom to replicate the normal sequential office hours in a virtual format; clearly let students know if you adopt that approach.
- **Scheduled appointments** give students outside of our time zone better access to faculty members; these interactions are often their only synchronous interactions with faculty.

In a virtual class, students are missing out on informal interactions with you before and after class, as well as stop-and-chats when you see each other on campus. Students greatly appreciate it when faculty sign on to the video meeting early, or stay on after it is over, to have these types of informal discussions. You could also consider occasional **virtual lunches** to replace our student-faculty lunch program.

Make sure to answer student emails on a timely basis. To centralize Q&A and answer frequently-asked questions efficiently, some faculty use Canvas discussion boards, while others utilize the University's **Ed Discussion** tool (previously Piazza -- the University's relationship with Piazza ended on June 30, 2022, including all Canvas integrations). For a video on how to use discussion boards, see [this resource](#).

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Graded Assignments

Exams

The university is **strongly discouraging proctored-exam options** for online course formats. You should plan on giving online open-book exams without proctoring. You should also reinforce the Honor Code in your syllabus and in your exam document and make the academic consequences of cheating clear in your syllabus.

In the online environment, many faculty have switched to automatically **graded exams in Canvas** (e.g., multiple choice, multiple answer, true-false). These exams can be implemented in the following ways to reduce the potential for cheating:

- Question/item banks allow you to write multiple versions of the same question with small differences, with each student's quiz getting a random draw from the bank.
- You can also randomize the order of the questions (New Quizzes only) and answers.
- You can specify an availability window during which all students have to take the exam; although, you may need to offer multiple windows for remote students in distant time zones or those who have requested accommodations.
- You can specify a time limit during which all students have a fixed-amount of time to finish the exam once they start it.

Canvas also supports short-answer or essay type questions that can be manually graded.

- Some professors use multiple exam slots to accommodate remote students and write slightly different exams for each slot.

- If you want students to handwrite their answers, you can have them use an app like CamScanner to create a pdf and upload into Canvas.
- Keep in mind that students may not have the ability to print exams at remote locations.

Setting up exams in an online format may take a significant amount of time when you first create these, especially if you use question banks. Start working on exams earlier than usual!

Student Disability Services will work behind the scenes with the **Courseware team** to change exam settings for students with extra-time accommodations.

- For a video with advice on online exams, see [this resource](#).
- To learn more about implementing exams in Canvas, see [this resource](#).

Short Quizzes

To focus student participation and to provide more opportunities to assess student performance, you can use short pre-class or post-class quizzes on Canvas.

- **Pre-class quizzes** allow the students to assess whether they have sufficiently grasped the material in the pre-class prep. Knowing they will be quizzed on the pre-class material provides a motivation to complete these. As the instructor, you can acquire feedback on what students did or did not understand prior to class.
- **Post-class quizzes** allow students to check their understanding of the course material right after class. They also provide students who are unable to attend video meetings with an opportunity to demonstrate that they watched the recordings of the sessions and can receive grading credit for this.

Class Participation

The important factors to consider when deciding how to grade class participation are:

1. Some students will have difficulty attending synchronous sessions due to time zone differences or due to illness.
2. Open class discussions are less fluid and take more time in an online format.

You can provide credit for asynchronous participation through Canvas discussion board postings, alternative app postings (e.g. Ed Discussion), or Canvas quizzes. Some faculty ask the students who could not attend the video meeting to watch the recording and send a list of comments or questions they have based on the discussion. Some instructors are concerned that asynchronous participation reduces attendance during synchronous sessions, and some students feel like discussion board postings are just **busy work**. The best approach is not always clear and must be tactfully set up with consideration of the trade-offs.

Student comments during class will be easier to grade because you (or a TA) can watch back the recording to give points for the comments. However, you will likely get fewer student comments in this format than in an in-person session. Strategies for managing student participation are in the [Student participation during video meetings](#) section above.

You can also give points for chat comments and questions. Make sure to download the chat transcripts from the video meeting ([Zoom instructions](#)) before logging off or you will lose them!

Through PollEverywhere, you can create a **group** for your students by uploading their emails from your class list. As

long as they are signed in when they answer your poll questions, you can download a record of all of their poll participation. You can also easily give polling credit by using Canvas quizzes during class.

Group Projects

Group projects are still feasible in an online class but require **some extra consideration**. Students will likely not be able to meet in person but will certainly be comfortable with video meetings. You may want to have students form their own groups or to shuffle the groups to avoid time zone conflicts within the groups. You may need to provide students information on where their classmates are located to facilitate group formation. You also need to be mindful that student illnesses or family emergencies may have an impact on a group's ability to meet deadlines.

You can have students present their projects during video meetings by enabling the Share Screen function, but make sure you have accommodations for groups that cannot attend the synchronous session.

Some faculty ask students to record their presentations in advance to improve the quality and to monitor the length. You could play these recordings in class, followed by a live Q&A, or you could ask the students to watch in advance and come to class ready to ask questions and provide feedback.

Technology

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There are a lot of options when it comes to the technology available for helping you teach online. Wharton Computing has a section of their Knowledge Base devoted to **learning and teaching remotely**. This list of resources should help you figure out what will work for you. You can also reach out to your **Wharton Computing** team for help and guidance.

Wharton Computing **created this chart** showing ways you can think about transforming your in-person teaching plans to an online version.

Equipment and Teaching Setup

Whether you are teaching from home or from a classroom, you'll need to make sure well in advance that you have what you need.

- [Remote Teaching Checklist](#)

Video Conference Platform

Wharton Faculty have access to Zoom for hosting online classes and meetings. These meetings can be scheduled through Canvas, and the recordings of these meetings will automatically transfer to the Class Recordings tab of your Canvas course site.

These resources will help you pick which platform to use for specific teaching purposes. There is also information on key features of each platform:

- [Video Conferences \(Zoom\)](#)
- [Video Conference Features](#)
- [Articles on Holding Virtual Events](#)
- [Inviting a Guest Speaker to a Video Conference](#)

Working with Video Meetings

- [Managing Online Presentations](#)
 - [Managing Online Exams](#)
 - [Canvas' New Quizzes](#)
 - [Recording Online Meetings](#)
-