

Flexible Teaching Strategies

While adapting your face-to-face courses to a [remote, web, or mixed mode learning environment](#) (synchronous or asynchronous), please bear in mind the following suggestions.

General Recommendations

- As much as possible, adhere to your usual schedule for prep work, grading, office hours, and class time.
- Hold scheduled (drop-in) student hours and offer individual consultations through [Zoom](#).
- Regularly check-in with students to make sure their technology is functioning. The [Help Desk](#) can assist you when necessary.

Engaging with Students

Establishing [instructor presence](#) is key to engaging students in online and remote learning. Consider the following strategies to foster a welcoming and participatory learning environment.

- Send a welcome email or announcement with information about the course and how to prepare for it (e.g., brief bio, syllabus, Canvas course name, how to contact you, etc.)
- Remind students to set their PSU email accounts and Canvas emails and announcements to forward to their preferred email addresses and give them time in class to ensure that they have done so.
- Start your course with an un-graded, introductions discussion forum and respond to it yourself in writing or by recording your own video or audio introduction, accompanied by a transcript. Invite students to respond in writing or with an audio or visual recording. Respond to each student's post with a brief welcome, making personal connections with them when possible.
- Continue the conversation in course-related discussion forums by posting new prompts mid-week and summary posts at the end of each week.
- Respond to each student at least once over the span of a course or semester. Point out their important insights, ask follow up questions, and/or point them to other students' posts where you see agreement or opportunities for fruitful debate.
- Create announcements in Canvas on a weekly, or more frequent basis, in order to proactively stay in touch with students. This is particularly critical for students who might already feel isolated, marginalized, reluctant, or overwhelmed, without assuming that students in one of these groups are in all of these groups.
 - Weekly preview announcement featuring the week's topics, reminders of pre-class preparation, and due dates.
 - Weekly review announcement featuring clarifications, summaries of class discussions, and due dates.
 - Periodically, direct students to "like" or respond briefly to these announcements to add a measure of accountability for reading them.
- Offer to schedule at least one, real-time, individual phone or Zoom conference with your students, in which they can share their concerns about the course or about an assignment.
- Share a downloadable version of your syllabus and course schedule with your students, so they have access to important information offline.

Zoom Meeting Recommendations

- Consider these options, many of which can be enabled or disabled in your Zoom account settings. For detailed instructions, refer to [Zoom Meeting or Webinar Quick Start Guide](#) or find help at [Keep Teaching - Technology](#).
- Consider these options, which can be set through your Zoom account settings. Help and tutorials are available at [Technology Training](#)
- Review [Recommendations for faculty to prevent disruptions in online classrooms](#) and [Overview of Meeting Privacy Settings](#).
- Share the Zoom room link through Canvas or by email. Do not post the link at a public web site.
- In Zoom settings, enable Zoom to generate a password or establish your own.
- Closed captioning and transcription is now available in Zoom. See Zoom support to [activate viewing closed captioning](#) in Zoom Rooms.
- Use the [waiting room](#) setting to ensure that you maintain host status of your own meetings.
- Start with all student microphones muted and cameras disabled. You can enable these features as you like. Refer to [Requiring Webcams](#) for official university guidance.
- Disable chat entirely, or only private chat, until you are ready to use them. Refer to [Controlling and disabling in-meeting Chat](#) for instructions.
- Set Zoom to [auto-save the chat](#) prior to each class session in which you plan to use it.
- Disable participant screen sharing, unless you need to have it on for your specific lesson.
- Enable [polling](#), [whiteboard](#), and/or [breakout rooms](#) to engage students and facilitate small group discussions.
- Use cloud recording, so you can more easily share links to those recordings with students and transfer the recordings to [Kaltura](#).
- Before beginning the class session and before you hit RECORD, alert students that the session will be recorded for future viewing and give them a chance to turn off their cameras. We recommend advance warning by email and Canvas announcements, too. For personal safety reasons, some students' images and environments should not be recorded. Those students should be encouraged to discuss this need with you ahead of time, so you can account for their presence in your class meeting. Refer to [Requiring Webcams](#) for official university guidance.
- Remember to hit STOP RECORDING (not just Leave Meeting or End Meeting) after your class session ends to avoid lengthy processing times and undue load on the system.
- Incorporate one or more [Zoom Questioning Strategies to Increase Engagement](#) into each class session.
- Enable [polling](#) and/or [breakout rooms](#) to engage students and facilitate small group discussions.
- If you take attendance, an attendance record is also available in [Zoom meeting reports](#). Alternatively, wait 10-15 minutes into the Zoom class sessions, and then ask all students to indicate their presence by typing something into the chat (e.g., "present," "hello," "I'm here," or an answer to a question of your choice). Repeat at least once during the class session. Remember to set Zoom to [auto-save the chat](#) before each session.

General Instructional Recommendations

- Try to limit or avoid simply recording a full-class session lecture without breaks. Colleagues who regularly teach online recognize that students need opportunities for engagement or breaks during video presentations more than 10 minutes long. Students will likely take those breaks, so it is better to plan them.
- Consider pre-recording lecture content and making it available to students before a class meeting. Then use the class meeting time for more interactive kinds of activities to process/apply/discuss the content.
- Consider assigning a student or [request a Tech TA](#) to monitor the chat during class and alert the instructor about important questions, comments, or themes.
- Consider recording Zoom sessions for absent students' future viewing and all students' reviewing. Engage students or monitor attendance using the [polling](#), [nonverbal feedback](#), or [whiteboard](#) features in Zoom.
- [Capture hand-written content in digital ink.](#)

Large Course Format

- Use prepared slides with spaced opportunities for short student discussions in breakout rooms.
 - Use the Zoom [polling](#) or [nonverbal feedback](#) features to gather for students' responses and to prompt or measure their engagement.
 - In Zoom, rotate through the [breakout rooms](#) to answer students' questions.
 - In Zoom, assign teaching assistants, [Tech TAs or Tech Tutors](#), if available, to the breakout rooms to monitor the chat and answer student questions.
 - Have students use the Zoom chat for written discussions in the breakout groups.
- Use assigned readings or homework as the basis for small group discussions in which you ask students to:
 - Summarize the X key points of the readings
 - Answer a short set of questions
 - Develop solutions to a problem (closed or open-ended). Students can submit photos of their work. Faculty can use a tablet or the camera on their [mobile phones as a document camera](#).
 - Share solutions and correct misconceptions
- Record short videos as a replacement for readings.

Discussion

Whole-class discussions can be challenging in remote or mixed-mode settings. Establish ground rules for discussion and interaction in your course, perhaps incorporating student input, and be sure that you define your expectations for participation.

- For assigned readings, provide discussion questions to be answered as they read, and assign students to breakout groups in Zoom.
- In order to avoid the "I agree" echo chamber sometimes present in online discussions, consider offering students a choice of [discussion prompts](#). A large class responding to several different prompts will prompt

more involved and thoughtful responses (Cassandra Sardo, New Jersey Institute of Technology, and Justin York, University of Illinois Urbana-Champaign).

- Offer students a choice between synchronous and asynchronous discussions. A real-time discussion may be appealing to students who enjoy the quick interaction, while asynchronous discussion threads (e.g., in Canvas or [VoiceThread](#)) can benefit students who wish to have more time to think about their responses.
- Use [VoiceThread](#) to facilitate discussions. Students can contribute in audio, video, or text formats. Some language instructors, in particular, are finding this tool useful.
- Invite your students to co-host a discussion by asking them to post a question to get the conversation started and allow them to share their own experiences, if it suits your context and class size. If using Zoom, [set the Chat](#) so that only you can see their suggestions.
- Creating virtual spaces for students to interact informally (i.e., without the pressure of a grade) can contribute to a sense of community, which, in turn, positively influences formal discussions. For example, create a “Parking Lot” discussion forum in Canvas where students can post their thoughts and feedback that is not directly related to the course content.
- Consider turning discussions into the sharing of [stories](#) as a way to engage students through digital storytelling, including through cartoons, videos, animations, and more.

Performance & Arts Courses

- Ask students to record a short performance using Zoom, solo or in groups.
- Encourage students to record presentations and projects through their own Zoom accounts and share links from the Zoom cloud.
- Ask the students to find examples of other performances (professional or other cultural types of performances) and write critiques.
- Find interviews with professionals in the field and ask students to write about how their own training compares and what they might apply.
- Many museums and other institutions offer free virtual tours. Consider asking students to view and answer questions or write a short essay.
- [Resources for dance-based pedagogy](#)

Labs

- [Capture hand-written content in digital ink](#)
- Perform and record a demonstration and post it in Canvas. Ask students to watch the video (before class or in class), then ask students to
 - Describe the steps in their own words
 - Identify errors
 - Describe how the results would change if X were changed
- Conduct a procedure or experiment incorrectly and ask students to identify which steps were wrong and how to correct them.

- Have students engage in online simulations (examples below from [Martin Samuels](#), Assoc. Director for Science, Derek Bok Center for Teaching and Learning, Harvard University)
 - Harvard's [LabXchange](#) has just released a suite of lab simulations with assessments that focus on basic molecular biology techniques.
 - [MERLOT](#) offers a collection of virtual labs in a variety of science disciplines.
 - [PHET](#) offers interactive simulations that allow students to vary parameters; and many textbooks also provide interactive lab-based resources.
 - [HHMI](#) offers virtual labs on cardiology, neurophysiology, immunology, bacterial identification, gene expression, and evolution (lizard and stickleback examples).
 - [Virtual Fetal Pig Dissection](#) from Whitman College
 - [Digital Neuroscience Modules](#) for undergraduate neuroscience courses
 - Videos and interactive online activities for [genetics](#)
 - [Interactive online modules](#) on basic biology concepts
- Conduct and record an experiment (or find an existing video of the experiment). Then post the data derived and ask students to analyze the data alone or in small groups. Samuels (cited above), suggests The [Journal of Visualized Experiments](#) (Penn State has access to archived issues from 2006 to 10/01/2018 through [PubMed \(Medline\)](#)).



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Please note that hyperlinks may have been revised or their contents deleted.

This document was offered as a web resource for faculty teaching online, flexible, or mixed-mode courses during the COVID-19 pandemic.

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