

Remote Teaching and Assessment Strategies

Below are strategies to consider as you adapt to the synchronous remote teaching environment. They are arranged by some of the common course formats and course types.

General Recommendations

- As much as possible, adhere to your usual schedule for prep work, grading, office hours, and class time.
- Establish a preferred means of communication and direct your students to use it. Students will have concerns about their ability to keep up with their coursework, particularly those students who expect to graduate this year. Consistent, frequent, and timely communication benefits everyone.
- Refer to [Penn State Remote Learning](#) for answers to common student questions. Prepare responses to suit your course.
- Hold scheduled (drop-in) student hours and offer individual consultations through [Zoom](#). Note: live captioning is available in Google Hangouts video meetings for those with students who need this.
- Avoid making assumptions about who will or will not have access to resources. Create an opportunity for students to communicate their individual concerns (e.g., ask “Is there anything I need to know that could impede your continued progress in this course?”). Students with unmet technology needs should contact Penn State IT at 814-865-HELP (4357) or ITservicedesk@psu.edu for individual arrangements.
- 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 week’s topics, reminders of pre-class preparation, and due dates.
- Weekly review announcement featuring clarifications, summaries of class discussions, and due dates.
- Regularly check-in with students to make sure their technology is functioning and to help problem-solve issues with [Help Desk](#) as needed.

Preparation Recommendations

- Consider these options, which can be set through your Zoom account settings. Help and tutorials are available at [Technology Training](#).
 - Create a [waiting room](#) with a message to students to ensure that you maintain host status of your own meetings.
 - Start with all student microphones muted.
 - Prevent screen sharing.
 - Use cloud recording, so you can share links with students.
 - Incorporate one or more [Zoom Questioning Strategies to Increase Engagement](#) into each class session.
 - Enable [polling](#) and [breakout rooms](#) to engage students and facilitate small group discussions.
 - Refer to [Controlling and disabling in-meeting Chat](#).
 - Review [Recommendations for faculty to prevent disruptions in online classrooms](#).
- Before beginning the class session and before you hit RECORD, warn 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.
- Remember to hit STOP RECORDING after your class session ends to avoid lengthy processing times and undue load on the system.

- Give students time in class to ensure that they have set all Canvas emails and announcements to forward to their preferred email addresses.

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 a TA) to monitor the chat during class and alert the instructor about important questions, comments, or themes.
- If you have always taken attendance in your residential course, wait 20-25 minutes into the Zoom class sessions, then ask all students to type their access ID (abc1234) into the chat as a way to take attendance; set Zoom to auto-save the chat. Note: some students may need to use an alias for personal safety reasons. 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.

Large Course Format

- Use prepared slides with spaced opportunities for short student discussions in breakout rooms.
 - Use the Zoom [polling tool](#) to gather for students' responses (similar to using Clicker Questions in face-to-face classes).
 - In Zoom, rotate through the [breakout rooms](#) to answer students' questions.
 - In Zoom, assign TAs 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.
- [Capture hand-written content in digital ink.](#)

Discussion

Whole-class discussions can be challenging when students might not all have the same level of access. In all of these cases, consider establishing ground rules for discussion and interaction in your course 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](#)) provide 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 at this time.
- 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.
- Provide alternatives to discussion, such as asking students to collaborate on a wiki or blog of class notes or to work together on completing [webquests](#).
- 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 are offering free virtual tours right now. 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 was 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
 - Looking for materials in chemistry, geology, or physics? Consult this [list of online resources](#) compiled by Educational Developer LeighAnn Tomaswick at Kent State.
- 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 who transformed their courses from face-to-face to remote learning environments due to campus closures resulting from the COVID-19 pandemic.

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