

DRAFT Insights and Best Practices from COPE sessions

Spring 2020

Sections:

1. Determining Course Structure
2. Building Community in a Remote Environment
3. Supporting Struggling Students
4. Lecture courses
5. Discussion-based courses
6. Labs
7. Evaluation: exams, quizzes, tests
8. Office Hours
9. TA training

Some best practices and resources appear in multiple sections of the document, as they serve multiple functions.

Section 1

Determining Course Structure

Challenges:

1. Planning around multiple time zones, technological limitations (for instructor and/or students), and/or course accessibility needs.
2. Choosing whether to hold synchronous sessions, how to use scheduled class time, how to combine synchronous and asynchronous course elements can be daunting.
3. Managing expectations around how much information students can learn and process in remote classes as compared to in-person classes.

Best Practices:

1. Survey students on their geographical location and time zone, the quality of their internet access, and other life circumstances that may affect their ability to participate in synchronous sessions, watch video, and have private conversations.
2. Analyze the instructor's home situation to identify any limitations.
3. Revisit the learning goals and determine which of them can be accomplished through asynchronous assignments.
4. If lecture is a common component of the course, reflect on advantages and disadvantages of delivering lectures synchronously.
5. Participate in Panopto training through NU to learn how to pre-record lectures.
6. Consider a blended approach: shifting some course components into the asynchronous realm, shortening the length of the synchronous meeting, and using the rest of the scheduled time for office hours.

Useful Resources:

1. NU Digital Learning page on Preparation for Remote Instruction: [Course Design and Materials | Digital Learning](#)
2. [Sample Survey](#), offered as a sample with permission from Franziska Lys
3. [AccessibleNU resources for remote instruction](#)

Section 2

Building Community in a Remote Environment

Challenges:

1. Getting to know your students without a meeting in person
2. Helping students get to know each other
3. Developing a feeling of community without the casual encounters between students in a classroom (or on campus)
4. Creating an inclusive, equitable class experience
 - a. Remote courses can expose and exacerbate SES differences between students.
 - b. Remote courses can make some students feel more comfortable saying, writing, or sharing potentially offensive things.
 - c. Teaching remotely can make it harder for instructors to notice or manage microaggressions during discussions or in other course components.

5. Recreating the flow and build of a good classroom conversation remotely

Best Practices:

1. Create opportunities for informal conversation with the instructor:
 - a. Start Zoom sessions 10 minutes early
 - b. Schedule one-on-one meetings to have an informal conversation unrelated to course content
 - c. Consider telling students a bit more about yourself than you might in a typical class (where you are, a hobby, a favorite film...). Help them feel like they're learning from a person.
2. Create opportunities for students to connect with each other:
 - a. Start class with a series of 30-second breakout groups with groups of 2 students, giving students an opportunity to hold a short conversation with a peer
 - b. Use longer break-out groups as opportunities for students to connect, discuss personal circumstances
3. Design assignments that put individual students at the center of the session:
 - a. Synchronous presentations with a peer-review component
 - b. Recorded video presentations with a peer-review component
 - c. Assigning students an opportunity to lead a section of each class (e.g., present a reading or a problem)
 - i. Alone
 - ii. In small groups
4. Peer-review activities
 - a. Synchronous presentations with a peer-review component
 - b. Recorded video presentations with a peer-review component
 - c. Assigning written peer reviews of presentations of drafts with detailed rubrics
5. Group work outside of class:
 - a. Randomized group design: rotating randomized groups throughout the quarter, allowing students to connect to more peers in the class;
 - b. Deliberate group design: constructing groups based on student performance, so that stronger students support weaker ones. A potential downside: students may resent "having to tutor" and "being tutored."

Useful Resources:

1. Hypothes.is: a communal annotation software. <https://web.hypothes.is>
2. Perusall: a communal annotation software. <https://perusall.com>
3. Piazza: an online discussion platform. <https://piazza.com>

4. Google.docs: a document sharing tool. [See here for information on integrating Google.docs with Canvas.](#)

Section 3

Supporting Struggling Students

Challenges:

1. Faculty are reporting:
 - a. Some students aren't:
 - i. Coming to synchronous class sessions
 - ii. Submitting work
 - iii. Actively participating in synchronous Zoom sessions
 - b. Students who might struggle in a regular quarter (for whatever reason) seem to be struggling more and sooner than usual this quarter
 - c. It can be hard to assess which students are struggling and why (ex: who is doing less or disengaging because of P/NP policy and who has other concerns getting in the way of their ability to engage).
2. Students are reporting a wide range of challenges in Spring 2020:
 - a. Many of these reports are coming from students with lower SES, but not all
 - b. Some academic struggles seem to be related to motivation concerns under the P/NP policy, but not all
3. Technology/Space issues:
 - a. No webcam, crashed laptop, older computer with limited capacity for current versions of remote learning tools
 - b. Internet issues (slow or spotty connections; multiple people in a household overwhelming connection, etc)
 - c. Limited access to private space for synchronous class sessions - can mean students have concerns keeping video on, have trouble following lecture or discussion, or are uncomfortable sharing thoughts or class content in front of family members
4. Mental and Physical Health Concerns/Personal or Familial Crises:
 - a. Students with COVID-19, or with family members who have it or who have died from it
 - b. Students suddenly in care-taking roles or need to get jobs to support family
 - c. Some reports of students in homes where they feel unsafe or that present intense threats to their ability to learn

- d. Students feeling isolated, unmotivated, worried about their futures, or struggling with depression or other mental health challenges
- 5. Other issues of trying to learn remotely:
 - a. The difficulty of returning to live with family (and under household rules) after time living on their own
 - b. Managing distraction, boredom, schoolwork schedule, etc away from campus
 - c. Missing friends and peer community
- 6. The synchronous experience (joining Zoom sessions and fully participating) can be especially hard for students for many of the reasons above, but students also report wanting the connection that synchronous class sessions can offer.

Best Practices:

1. See best practices for Building Community/Engaging Students above, as students may be more likely to reach out to you when struggling if they feel engaged in the course community from the start.
2. Telling students early on that they can and should reach out to you if they're struggling.
3. If a student misses a synchronous meeting, reaching out to them during the class meeting time, if possible. Some faculty reach out to missing students while the rest of the students are in breakout sessions.
4. Reaching out to a student who seems disengaged. Encourage them to talk with you about what's tripping them up and what might be paths forward for them in the course. (If you have a student who is not responding, it may help to tell them that your next step will be contacting their advisor.)
5. Considering flexibility in course policies and procedures where possible.
 - a. Advisors are also telling students to think about what they need to do or what help they could use to actually learn this quarter, not just to pass a class; also sometimes reminding them that the material in a P/NP class could still be foundational for future courses, so urging them to find motivation and think about possible solutions to get what they need.
6. Alerting the student's advisor or direct students to NU services. (See "Useful Resources" below.)
7. Reminding students that they're not alone--that many people are going through similar struggles right now, which also means that people are working on system-wide solutions to shared problems. (Ex: A student worried about missing material from sequenced pre-med courses is not the only student in that boat, so there may be new initiatives to support students with those concerns.)

Useful Resources:

1. How to get in touch with your student's academic advisor:

- a. Submit a midterm report on Caesar.
 - i. What happens when you submit a report?
 1. Liz Trubey receives an updated list of those reports at 8 am each morning. The Athletic Department and some other offices may receive notification of the report for a student as well.
 2. Liz Trubey sends the report to the student's advisor, who reaches out to the student. The advising team may contact other offices (ex: Health Services) or may write to other faculty who have that student that quarter, asking how the student has been doing.
 3. If the student responds, the advisor will work with them to assess their issues, discuss options, and get services if needed. The advisor will check on the student repeatedly as quarter progresses.
 4. If the student does not respond, Liz and team will keep trying and involve other offices as needed.
 5. You may not get updates about your reported student throughout this process, because of time constraints or advising decisions.
 - b. Ask your department's DUS who your student's academic advisor is and contact them directly.
 - c. Reach out to Liz Trubey (Assistant Dean for Academic Advising) at eft@northwestern.edu.
2. Financial concerns:
 - a. The link to emergency aid: [Undergraduate Emergency Aid Request: Undergraduate Financial Aid - Northwestern University](#)
 - b. Best email to use for questions: undergradaid@u.northwestern.edu
3. Mental Health:
 - a. [Counseling and Psychological Services \(CAPS\) Online Programming](#)
 - b. [Information on making appointments with CAPS and on recommended crisis hotlines](#)
4. If students report having Covid-19:
 - a. Ask them to contact Anita Opdycke at the Health Center at Anita.opdycke@northwestern.edu or 847-491-2118
5. Overall Well-Being
 - a. Student Assistance and Support Services (SASS), Mona Dugo: mona.dugo@northwestern.edu

Section 4

Lecture Courses

Challenges:

1. Making lectures or typical “in-class” material available to all students, but in ways that will also keep them engaged.
2. Managing synchronous class sessions in Zoom--especially challenging without a TA.
3. Difficulty in determining whether students are paying attention.

Best Practices:

1. Pre-recording lectures in Panopto and making them available to students on Canvas.
Using the freed-up class time to run office hours.
 - a. Breaking up lectures into short segments no longer than 15 minutes. Research suggests that students’ attention wanes after 15 minutes of watching a recorded lecture.
 - b. Organizing recorded lectures around narrow concepts to make it possible to reuse the recordings in other classes.
 - c. Avoid including time-specific elements in recorded lectures, e.g., commentary on current events and course assignments, in order to make it possible to reuse the recordings in other classes.
 - d. To ensure that students view the recordings, designing short quizzes or other assignments for students to compete after viewing each video segment.
2. Recording synchronous lectures in Zoom and making them available on Canvas.
 - a. To encourage attendance of synchronous lectures, password-protecting posted recordings and providing the password upon request.
 - b. Editing recorded lectures to remove irrelevant components (informal conversation at the beginning, polls, break-out group time, etc.). Students in break-out sessions do not get recorded.
 - c. Pausing the recording during student discussions or when students ask questions, because students may be hesitant to express themselves in discussion or to ask questions if a permanent record is created.
3. Breaking up the lecture as often as every 15 minutes for a short zoom poll to make sure that everyone is staying engaged and following the material.
4. To get a quick “yes or no” question, asking students to choose “raise the hand” zoom option for “yes” and “clapping hands” zoom option for “no.”

5. Ways to utilize the chat option:
 - a. Depending on the instructor's level of comfort in multitasking, students can be encouraged to submit questions or comments via chat. It may help facilitate engagement among students who can't turn on the camera or feel shy to speak up;
 - b. A TA can monitor the chat room, respond to questions, or bring questions to the instructor's attention;
 - c. If a TA is not available, the instructor can designate select undergraduate students to monitor the chat;
 - d. Some instructors use the chat room for technical questions only, not to distract from the conversation.
6. Assigning TAs as Zoom co-hosts to make it possible for them to help if, for example, the instructor loses connectivity.
 - a. In classes with no TAs, consider assigning a responsible undergraduate student as a co-host.
7. Using a second monitor to be able to see more student faces in large classes
8. Encouraging students to keep their camera on while acknowledging that for some, it may be impossible. Asking students to contact the instructor if keeping the camera on is problematic and brainstorming for a solution together.
 - a. If a student reports not having a camera, encouraging them to apply for NU emergency aid.
9. Ways to prevent zoom bombing:
 - a. Setting up the meeting so that only registered participants can join
 - b. If concerns still exist, choosing the "waiting room" option and letting students in one by one. Without a TA, the waiting room option may not be viable, because the instructor will have difficulty focusing on the lecture and letting students in from the waiting room.
 - c. Students may need to be allowed in at any point of the lecture, since they may lose connectivity and rejoin the meeting.
 - d. When scheduling the meeting, disable screen sharing for anyone other than the host.
 - e. When scheduling the meeting, disable participants' ability to change their name after the meeting starts.
10. Ways to take attendance:
 - a. Ask student to write "here" in chat and save the chat at the end of the lecture.
 - b. Set up a non-anonymous poll and take attendance based on poll participation.
 - c. After the meeting ends, go to northwestern.zoom.us => reports (in the column on the left) => usage => choose the meeting => participants (the right column).
11. See the Best Practices listed in Section 5: Discussion-Based Courses below for practices that might be relevant to your course as well

Useful Resources:

1. NU emergency aid fun:
[Undergraduate Emergency Aid Request: Undergraduate Financial Aid - Northwestern University](#)

Section 5

Discussion-Based Courses

Challenges:

1. Having students in disparate time zones or with synchronous access challenges
2. Creating the flow and build of a good discussion remotely
3. Getting students to lead discussion and respond to one another, since Zoom is instructor/host-centric
4. Managing synchronous discussion with a group larger than ~15
5. Managing synchronous discussion with students who can't or would rather not turn on videos
6. Creating rich, engaging asynchronous discussions through Canvas or other discussion-board style tools

Best Practices:

For Synchronous Zoom Sessions:

1. Assigning TAs as Zoom co-hosts to make it possible for them to help if, for example, the instructor loses connectivity.
 - a. In classes with no TAs, consider assigning a responsible undergraduate student as a co-host.
2. Encouraging students to keep their camera on while acknowledging that for some, it may be impossible. Asking students to contact the instructor if keeping the camera on is problematic and brainstorming for a solution together.
 - a. If a student reports not having a camera, encouraging them to apply for NU emergency aid.
3. Creating practices for Zoom discussions as a group:

- a. Determine muting practices, to avoid the loss of time in determining muting/unmuting in each meeting:
 - i. Do students always keep their sound muted? Some faculty find it helpful to keep sound on to create a community feel;
 - ii. If sound is usually muted, who unmutes the student when it's their turn to talk?
 1. Students themselves;
 2. Instructor;
 3. TA
 - b. Determine how students should ask questions:
 - i. Zoom "raise the hand" option;
 - ii. Raising the physical hand, provided that all students fit on the screen and their video is turned on;
 - iii. Just speaking up;
 - iv. Typing the question in chat;
 - v. Typing "I have a question" in chat, then instructor calling on the student and the student asking the question.
 - c. Determine recording practices, especially in classes with potentially sensitive subject matter:
 - i. If recording a session, pause the recording when starting a sensitive discussion. Some faculty choose to record the lecture component of each session only and always pause the recording when student discussion starts. Students may feel reluctant to speak up if they know that a permanent record of their contribution is created. Moreover, some students report not getting much value out of watching a recording of other students' discussion.
 - d. Provide a clear summary of guidelines:
 - i. Example: "DO use chat to ask questions. DON'T use chat to comment on someone else's comment because that can distract us from the audible discussion."
 - ii. Include the guidelines in the syllabus and share on the Canvas site.
4. Sharing an agenda or lesson plan at the start of each class that has key topics and questions for the session.
 - a. A Google Doc works especially well for this. Faculty have successfully used them by sharing a document with the plan for the session with students so they can follow along, compile collective notes from Breakout Sessions or interactive exercises, and more.
 5. Some faculty have had success with the following technique: after posing a discussion question, asking students to type their answers into chat, then calling on select student to speak and elaborate on their written answers.
 6. Utilizing breakout rooms:
 - a. Breakout rooms can be randomized or pre-set in Canvas;

- b. To alleviate the unnatural feel of an instructor popping up in breakout rooms in the middle of students' discussion, asking students to invite the instructor into the break-out room when they are ready to share their findings;
 - c. Asking students to take notes in a shared google doc, which allows the instructor to see each group's progress in real time and interfere if necessary;
 - d. For the purpose of community building, allow students some time to chat and bond in ways that simulate informal chatter in the physical classroom;
 - e. Invite students to establish a personality for their break-out group and communicate it to the rest of the class by changing their Zoom background to the same relevant image, for example.
7. Utilizing Zoom's unique features to facilitate role-play-based assignments.
 - a. If Zoombombing is not a concern, asking students to change their Zoom name to reflect the identify they are role-playing (e.g., a literary character, a political or historical figure, a party in a dispute). Once the activity is over, asking students to change their Zoom names back to their actual names;
 - b. Inviting students to change their Zoom background to communicate a message or a position.
 8. Establishing a rotating schedule of students leading select class activities, individually or in groups.
 9. Ways to prevent zoom bombing:
 - a. Setting up the meeting so that only registered participants can join
 - b. If concerns still exist, choosing the "waiting room" option and letting students in one by one. Without a TA, the waiting room option may not be viable, because the instructor will have difficulty focusing on the lecture and letting students in from the waiting room.
 - c. Students may need to be allowed in at any point of the lecture, since they may lose connectivity and rejoin the meeting.
 - d. When scheduling the meeting, disable screen sharing for anyone other than the host.
 - e. When scheduling the meeting, disable participants' ability to change their name after the meeting starts.

For Asynchronous Discussion Boards:

1. Determine your learning goals for asynchronous
2. Give students a rubric or other clear instructions on how you expect them to use the discussion board (how often, by when, for what kinds of thinking or discussion...). Be sure to give them a sense of what constitutes a good discussion board post or comment in your course, since students might be asked to use the same digital tools in different ways in their courses.
3. Consider using prompts or questions to spark discussion. Some people have expressed a preference for varying their prompts/questions, while others set the same general

prompt/questions for each week. Do what works best for your students and the overall structure of your course.

4. Consider having students create discussion board prompts/questions. This could be an option for them, or it could be something that you require. If required:
 - a. Give them clear instructions on the kind of prompt/question they can create.
 - b. Create a schedule so they know when they're responsible for starting and/or monitoring a discussion board.
 - c. Consider assigning them to do this in pairs or groups, which has worked especially well for instructors.
5. Consider allowing students to post and/or comment with video, audio, or image files where appropriate, and to post your prompt/question/comments as videos
 - a. Especially useful in some sorts of classes (languages, courses that benefit from showing hand-writing or drawings...).
 - b. Useful alternative in a writing-heavy course, or if writing is not crucial for the discussion board assignment.
 - c. Could help create a sense of community, help students get to know one another.

Useful Resources:

1. Hypothes.is: a communal annotation software. <https://web.hypothes.is>
2. Perusall: a communal annotation software. <https://perusall.com>
3. Piazza: an online discussion platform. <https://piazza.com>
4. Google.docs
<https://digitallearning.northwestern.edu/article/2018/02/23/updated-google-drive-integration-available-canvas>

Section 6

Labs

Challenges:

1. Creating remote versions of what are typically physical experiences with specialized equipment, and experiences that normally expose students to particular spaces and procedures within them.
2. Deciding whether to use online simulated lab exercises and to what degree if using them.

Best Practices:

1. Focus on the learning objectives of the lab course or component. If the learning objectives are primarily skills more than particular field content, consider creative ways to get students practicing the skills.
 - a. Example: have students practice dissection skills using food and household items (as Valerie Kilman did in her Neurobiology lab)
2. Explore online simulated lab resources (see Useful Resources below), but consider learning objectives when determining use.
3. Offer students ample office hours (when possible) or other opportunities for asking questions.

Useful Resources:

1. [Online Resources for Science Laboratories \(POD\) - Remote Teaching](#)
2. [How to Quickly \(and Safely\) Move a Lab Course Online](#)

Section 7

Evaluation: Exams, Quizzes, Tests

Challenges:

1. Ensuring academic integrity
2. Creating an environment where observing the rules of academic integrity does not disadvantage students in terms of their grades. The internet offers numerous opportunities to get around Respondus Browser Lockdown and other means of preventing cheating.
3. Because of the time zone difference, students may find their scheduled exams to take place in the middle of the night, thus reducing their capacity to perform well.
4. If designing several versions of exams to be offered at different times, it may be challenging to ensure and to convince students that all versions are identical in their degree of difficulty.

Best Practices:

1. If at all possible, designing open-book, open-notes, open-internet exams.
2. Discussing academic integrity with students explicitly in a synchronous session.
3. Including an academic integrity statement in the syllabus.
4. Designing a quiz that tests students on their understanding of the academic integrity guidelines.
5. At the beginning of each test, including a section where students have to type up an “honesty statement.” According to research, typing up the honesty statement immediately before the test decreases (but does not eliminate) instances of cheating.
6. Scheduling alternative exam times for students in other time zones
 - a. Designing several versions of exams to prevent students from sharing answers;
 - b. Using question banks to create alternative versions of exams while maintaining the same degree of difficulty;
7. To prevent students from collaborating in real time, assigning several versions of exams that look similar, but differ slightly in their detail.

Useful Resources:

1. Advice on the practices of academic integrity: [If My Classmates Are Going to Cheat on an Online Exam, Why Can't I?](#)
2. Research on the “honesty statement”:
https://www.sciencedirect.com/science/article/abs/pii/S0167487018303076?casa_token=n-hQ-nF42z4AAAAA:EQgoRGp973zYGAYR5pxd_zlcr6ljNcboKs4lh7IHwx69eHxJ63nC-AhYks7jhsx3zzylrJB4TkQ0

Section 8

Office Hours

Challenges:

1. Managing the flow of students on Zoom
2. Managing time effectively, especially in larger classes
3. Determining whether and when to require OH visits

Best Practices:

1. Best practices vary by course size, as well as course structure, how the instructor uses synchronous course sessions, and, of course, personal preference.
2. Suggest to students a choice of a Zoom meeting or a phone conversation to relieve their Zoom fatigue and free up their bandwidth.
3. One approach:
 - a. Set office hours for a specific day and time, as you would in person.
 - b. Use personal meeting ID for office hours, or use another consistent meeting ID.
 - c. Set up “Waiting Room” function so that you can end a conversation with one student and then bring a new one into the room.
 - d. When seeing a student enter the waiting room, send them a message letting them know how many students are already waiting in the waiting room, to give the student an estimate of how long they will have to wait.
4. Other approaches:
 - a. Make individual appointments with students and/or have them request appointments as needed. Can be done in Canvas.
 - b. Meet with small groups of students.
 - c. Designate some portion of scheduled synchronous class time to OH on a regular basis. The option is especially applicable if the instructor pre-records lectures and posts them for students to watch on their own time.

Useful Resources:

1. [The Quandary: How Available Should Faculty Members Be to Students Online?](#)

Section 9

Working with TAs

Challenges:

1. Shift in TA responsibilities
2. Need to train TAs not only in subject matter, but also in remote pedagogical practices
3. A wide variance in TA circumstances: some are free and eager to take on more responsibilities, while others struggle with poor internet access, financial hardship, or young children at home.

Best Practices:

1. Surveying TAs before the beginning of the quarter on the strength of their internet access and other home life circumstances that may affect their performance.
2. Meeting with TAs weekly to touch base not only about the course content, but also about their shifting home circumstances.
3. Depending on their circumstances, encouraging or requiring TAs to attend virtual training offered by Northwestern.
4. Advising TAs on best practices in setting up their own office hours and communicating to students about them.
5. Advising TAs on using remote teaching responsibilities as a professional development opportunity:
 - a. Encouraging them to keep a record of everything they do to include on their CVs and discuss in future job interviews;
 - b. If TAs are interested and able, encouraging them to take on more of a leadership role, e.g., leading an alternative synchronous section for students in a different time zone, holding a test or an exam for students in a different time zone.
6. Asking TAs to provide support during synchronous meetings:
 - a. Allow students in from the waiting room;
 - b. Monitor the chat;
 - c. Respond to questions in chat or elevate them to the instructor's attention, if necessary;
 - d. Take attendance;
 - e. Work with students in break-out sessions.
7. Encouraging TAs to pair up and lead synchronous discussion sessions in groups of two, where one TA focuses on content and the other TA plays the tech support role, see Section 5: Discussion-Based Courses.

Useful Resources:

1. NU training resources: [Digital Learning | Educational Innovation Across Northwestern](#)
2. Searle Center programs for graduate students and post-docs: [Graduate and Postdoctoral Learning: Searle Center for Advancing Learning & Teaching](#)