Options for Taking Attendance and Engaging Students During Remote Instruction

Taking attendance has always been strangely difficult. In an ideal world, you might have a group of students, each of whom you recognize on sight and who reliably show up on-time to each class. However, our world is far more interesting. As instructors, we often keep track of our large classes by using iClickers, promote punctuality by doing check-ins early in class, and give students a few "free" absences if unexpected life events come up. Now, educators have to get innovative again to tackle remote and, potentially, asynchronous instruction with little time to prepare. While instructors are discouraged from assigning points for attending synchronously, taking attendance is still important for tracking who is participating and whether they are doing it live or asynchronously. Using an attendance-taking method without assigning points is a useful first step for ensuring equitable allotment of participation points and assignments. Additionally, taking attendance can give instructors an idea of who may benefit from a check-in or extra support.

So how can we handle taking attendance at a time when we are: a) using videoconferencing technology; b) potentially engaging asynchronously; c) confronting high levels of stress and societal disruption? Below are some suggestions for how to take attendance. We hope you come away from this document with some new ideas for how to recognize both your students and yourself for showing up during this difficult time.

The method is the message. The way in which you take attendance sends a message about what you think is the purpose for being in class. Usually, we count physical presence; however, remote instruction offers us an opportunity to rethink what we believe is essential for our students to learn in our classes. So, before going on to any of the suggestions below, you might want to ask: "What is the most important thing I want all of my students to get out of this class and why is attendance important/essential to their learning?"

1. Launch a poll live. If you are doing a live class through Zoom, you have the ability to create polls. You can use this function to take attendance as you would normally use an iClicker. With this feature, attendees answer a question and their names and responses are recorded. Zoom does not integrate with Canvas the way iClickers do, so you will not be able to automatically record who is and is not present. However, you can copy and paste all respondents into an Excel sheet and create count functions to keep track of how many classes each student attends. While instructors are discouraged from assigning points for attending synchronously, using live polls is a good way to keep track of who can attend synchronously as well as who may be having a difficult time with the course content. During this time, students may have limited access to the internet or to a quiet space. They may also be supporting family, friends, or relatives during this time which may impact when they can fully engage in class.





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Poll asynchronously. If a student cannot attend a live lecture or you are pre-recording all your lectures, polls can still be useful for encouraging and recording attendance. Through Canvas, create weekly polls that function as low or no-stakes quizzes on one important thing you would like your students to get out of that particular class. If you are preparing in advance, you could ask a more challenging question, but go over the answer in the lecture. This method of using polls not only allows you to take attendance, but also provides you and your students with feedback on what they are learning. Make sure that your students will have <u>access to the lecture recordings</u> by recording via Kaltura Capture or the Zoom App. Zoom will store them for 30 days in its cloud or you can use Kaltura to record your live lectures, which will be stored in "My Media" on Canvas. As with any quiz on Canvas, you can set a due date.

You may want to use polls if you primarily want to expose students to course content. This is common in introductory or survey courses.

Bonus tip: You can set Zoom polls so they are anonymous and you can use them to gauge student learning as you would a iClicker question in a live lecture. This allows you to see how they are applying what they have learned to new problems.

2. Weekly pre-class assessments. For live and asynchronous instruction, pre-class assessments or quizzes can be a good way to both record who is showing up to engage with course content as well as promote learning. Additionally, they are useful for gauging students' prior knowledge or the level of understanding with which they are approaching the week's instruction. This can be useful information for an instructor in deciding how to address and coach students in a formative way. Differing from polls, pre-class assessments typically consist of more than one question. To keep it manageable for you and your students, try developing five questions to cover main concepts from the week that you want to make sure your students learn. You can create them through Canvas, which will automatically assess answers and record grades, and you can set due dates so that students will complete them within a particular time-frame. To accomodate external circumstances students may be facing, we recommend giving students between several days and a week to do each quiz. To keep it manageable and low-stakes, but still impactful, consider: a) giving students multiple times to retake the quiz; b) assess comprehension of foundational concepts; and c) keep the quizzes "low value" in terms of points. You may also excuse students from particular guizzes if something comes up. Not only will you encourage students to attend your class, by using pre-class quizzes, you will be using a learning tool that will, on average, improve exam or final assessment performance (Dobson, 2008).



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You may want to use pre-class assessments if you primarily want students to come away being able to remember and explain course content. This is a common goal for a major's foundational course series.

Bonus tip: Develop a more challenging quiz that you have students take at the beginning *and* end of the week. Award points for doing the pre- and post-quiz and the score students receive on the post-quiz. The lecture and week's coursework should prepare students to excel on the post-quiz. By taking the quiz before the week's work, students will have a clearer idea on the important skills and concepts they should develop for that particular portion of the class.

- 3. Written reflections. In the Teaching + Learning Commons, we often recommend that instructors incorporate some kind of written reflection activity into their teaching. They not only break up lectures, but they also promote metacognition and give students an opportunity to engage more critically with the course contentAdditionally, they give instructors a chance to check-in regarding whether students are thriving or struggling. Educators can still incorporate written reflections into their live remote and asynchronous instruction. You can use Google Forms or Canvas surveys to create an easy system for collecting and tracking student responses for either lecture or section. These can be after every class or at the end of every week. Here are some ideas for what to have students write about ranked in order of least time to most time both you and your students would spend on this:
 - **Muddiest point:** At the end of each lecture, or viewing of a recorded lecture, students write one or two sentences saying which concept or point they found the most confusing and why.
 - Exit ticket: At the end of each discussion section or lecture, or viewing of a recorded lecture, students fill out a survey that asks them to write short answers to questions like. Check out this <u>sample exit ticket</u> for inspiration. Remember, if you do ask students how they are doing, be prepared to follow-up either with the whole class or individually to either acknowledge their experience or to direct them to additional resources such as <u>CAPS</u> or one of UC San Diego's tutoring programs such as the Teaching + Learning Commons Academic Achievement Hub's <u>Content Tutoring</u>.
 - 5-minute paper: Once a week, or after each class, ask students to write about 100 words explaining their favorite concept, point, topic, reading, or skill they covered.





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You can also use the 5-minute paper after exams to encourage them to reflect on their approach to studying and learning.

EXAMPLA Blogging: Once a week, have students write about a concept in a way that explains it to a public audience. Encourage students to use a platform of their choice to teach people outside of UC San Diego something. This can both be a means of taking attendance and a substantive assignment. Do encourage students to bring in their passion for journalism, photography, drawing, video production, live streaming, and community engagement. This would be a serious time investment on you and/or your IA's end for assessing, so plan accordingly.

You may want to use written reflections if you primarily want students to come away being able to build on foundational concepts or use a concept or skill for a particular purpose. This is common in intermediate to advanced courses or ones that emphasize skill development.

Bonus tip: Did you know that students who reflect on *how* they are learning actually retain *what* they are learning better than students who don't do this kind of reflection? (Ong, 2000; Ash, Clayton, & Atkinson, 2005; Ash & Clayton, 2009)? Whether you use written reflection as a way to take attendance or not, consider incorporating opportunities into your class for students to reflect on what helps them learn.

4. Concept maps. As educators, we hope that students have an "aha!" moment where they see how everything in our class fits together. To encourage these moments and to keep track of to what extent they are keeping up with lectures, consider assigning regular concept maps. Concept maps are generally composed of two elements: 1) nodes/boxes/concepts and 2) edges/lines/connections. Check out these examples for ideas coming from: archeology, psychology, electrical engineering and computer sciences, and cell biology. Students create boxes for the concepts and draw lines between them on which they describe how particular concepts are connected. The kinds of connections may be: cause and effect, temporal relation, thematic or physical similarity, etc. The purpose of this exercise is for students to describe the relationships between as many concepts as possible. There are a lot of great free virtual options for easily creating concept maps including: Mindmup, Lucidchart, Bubbl.us (free 30-day trial), Padlet and Canva.

You may want to use concept maps if you primarily want students to come away with a fine-grained appreciation for how concepts, theories, and skills relate to each other. This is common in topics courses or seminar-style classes.



Bonus tip: Get students involved in creating educational resources for your class! Concept maps can become great ways for students to share with each other how a complex topic works. They see that they are creating a meaningful resource for future students. You will also be supporting peer instruction which promotes deeper understanding of material and increases pass rates (Simon & Cutts, 2012; Porter, Lee, & Simon, 2013).

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- 5. **Take a position.** A way to both increase student engagement and take attendance is by getting students to take a position on a problem or topic. Just because we are doing remote instruction does not mean that we have to abandon one of our favorite ways to get students excited and invested. While a whole-class debate may not be feasible through Zoom or for students participating asynchronously, there are other options. Below are two examples of ways to incorporate position-taking activities into your class that also allow you to take attendance.
 - For an assignment that students can do on their own, consider giving them a weekly prompt or problem that either does not have enough information to be solved or is complicated or ambiguous enough that there can be multiple ways of approaching it. Ask students to write a **bullet-point argument outline** for what additional information they would need to solve the problem and how they would solve it if they had that additional information. Alternatively, for a prompt, ask them to create a bullet-point argument outline for why their approach or interpretation is the right one. They can upload this to Turnitin via Canvas each week. As a plus, you will get a window into how they are understanding the course content and have student-created material you can draw on in lecture.
 - For an assignment that students can do with others, consider using Canvas's discussion board feature. As with the previous example, create either a problem or prompt that either does not have enough information or is ambiguous or complicated enough to support more than one approach to addressing it. Have students write paragraph-long posts arguing for what information they would need to solve the problem or an argument for why their particular interpretation and approach are the correct ones to take. You can also assign people in advance to a particular position. Once students post their responses, they must substantively respond to at least two other students' posts or responses. You are welcome to add additional incentives, like extra participation points, or honorary titles. IAs or instructors can click through individual students to see their discussion board activities and allot points accordingly.





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You may want to use position-taking assignments if you primarily want students to come away having developed their critical-thinking and analytical skills. These are skills that many majors seek to cultivate and for which many employers look in job candidates. These activities can be modified so they are section-based for large lectures classes. Instructors and IAs can also provide more or less scaffolding depending on the level of the course.

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Bonus tip: Does your class, or a module within it, have particular relevance to something happening in the news? Consider adding an assignment (that can be substantive enough to count as a midterm) that gets students to use their experience in your class to respond to something going on right now. For example, if you have been going over lipid membranes, you can get students to respond to an article about hand-washing and how it kills viruses. You could also ask students to come up with alternatives to soap and water/hand sanitizer for disrupting lipid membranes. Or, if you are teaching an economics class, you can ask students to respond to an article about the future of the global economy. Or, for a humanities class, you could ask students to analyze the kind of ethical arguments that are circulating in the news.

- 6. **Community creation.** It can be hard for people doing remote learning and instruction to feel like they are part of a classroom community. However, there are quick ways you can support the development of a distributed and asynchronous community in your class. If you have the time, check out <u>10 Tips for Creating Community through Remote Instruction</u>. If you have less time, consider the following examples for ways you can both take attendance and support the development of your classroom community.
 - After each lecture, or viewing of a recorded lecture, ask students to take a picture or draw something that represents either how they are doing or a concept you covered that day. They can post this to a discussion board on Canvas or you can make it an official assignment that they turn in. To keep it low-stakes, grade for completion. However, to incentive quality posts, consider assigning bonus points to particularly creative or thoughtful creations.
 - Put students in small groups and ask them to collaboratively take notes on the homework and lectures. You can use a Google Document to keep track of who is contributing. Not only will you be helping your students develop valuable soft skills of teamwork, collaboration, and professionalism, you will be giving your students a chance to be a resource to each other.



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the world. This is applicable for almost all classes; however, the time commitment to developing and responding to these activities is worth considering before deciding to what extent you want to implement them.

Bonus tip: Unleash your students' creativity by asking them to take a creative approach to the course material. UC San Diego students have done amazing things like develop educational material for courses, like in the <u>BioClock Studio</u>. They are also writers, artists, filmmakers, cooks, actors, dancers, singers, musicians, athletes, comedians, and community members. Do you want to see a stop-motion claymation of mitosis? An interpretative dance about renaissance art? A one act play of Karl Marx and Adam Smith debating communism and capitalism in space? A rap about the Fourier series? A fun historical facts pamphlet that students hand out while delivering groceries in our community? Your students may surprise you with what your class inspires them to create!

A note of encouragement: Trying anything new in the classroom can be an emotionally and mentally challenging experience. Attempting several new things at once exponentially increases that challenge. It is unrealistic to expect perfection from yourself and now even more so. However, showing up to your class and acknowledging the challenges of this experience will do wonders for bringing you and your students together. The vast majority of your students are on your team and want to support you and their classmates. Take a moment before each class to recognize your own accomplishment of showing up and doing your best. By picking one of the methods above, you'll have a way of keeping track of who is participating in your class so you can focus on being present (synchronously or asynchronously!) with your students. We are cheering you on and are here to support you. Please do not hesitate to reach out to us at engagedteaching@ucsd.edu.





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