Ways to Visualize Your Course

As Dean Goldey suggested, we are creative teachers who will implement a plan that works best to achieve the learning goals of each course. Offered here are several potential ways to visualize your course—you are of course not required to adopt one of these approaches, they are solely meant to help you think through what might fit your course goals. I focus on the 3-credit course that is most widespread across campus; those who are teaching lab, language, studio, etc. courses are best positioned to adapt these approaches to their needs and disciplines.

The Traditional Blended Approach and the Flipped Blended Approach emphasize hybrid or blended classrooms in which some students join through Zoom and some students are physically in the classroom. In the Braided Approach and the Decentralized Approach, students alternate between face-to-face meetings with the instructor and structured independent or group work. Some courses may be entirely remote, if you are teaching from home, and some courses may be fully in person if conditions allow. Each approach is described in detail below.

TRADITIONAL BLENDED APPROACH

Content delivery and discussion occur in a blended synchronous format. Students use Moodle to access readings, assignments, and other traditional out-of-the-classroom work. Content progresses each class period. The CTL has a video and resources on the Hybrid/Blended Synchronous Model.

Students: Some students attend in person, while the rest connect via Zoom. What follows is one way to organize this for a MTWF schedule:

Group A students are on campus; they attend class physically for 90 minutes on Monday and Wednesday, and virtually for 90 minutes on Tuesday and Friday.
Group B students are on campus; they attend class physically for 90 minutes on Tuesday and Friday, and virtually for 90 minutes on Monday and Wednesday.
Group C students are off campus and attend all class sessions remotely.

Tech set-up: Using the hybrid classroom technology described above, the instructor teaches content and leads the students in discussion and activities. Moodle is used to host readings, assignments, and recordings of synchronous sessions or equivalent alternatives for students who can't connect synchronously.

Advantages:

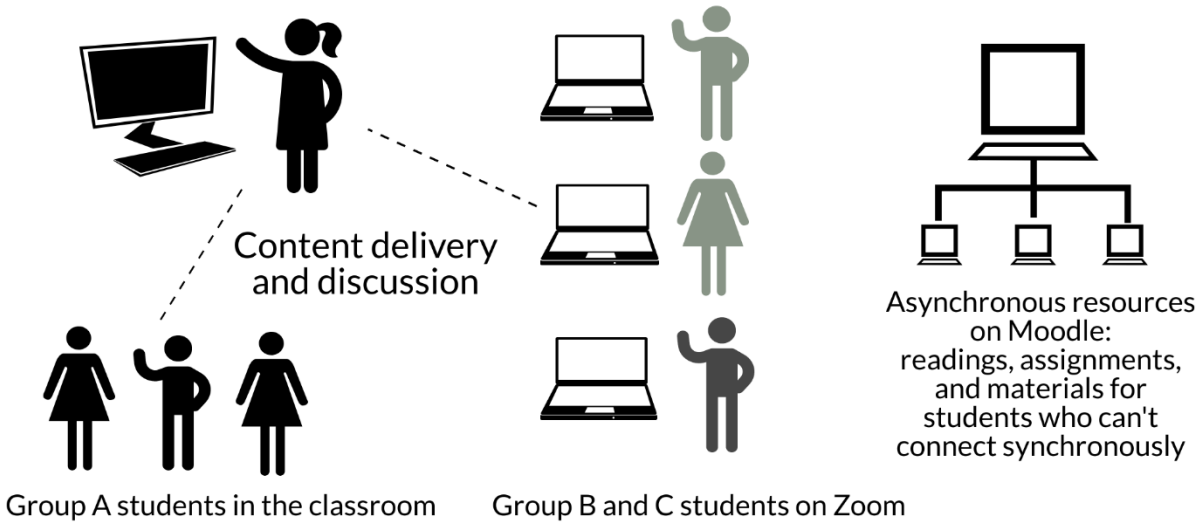
- Requires the fewest changes and the least special preparation. Existing lecture and discussion materials can be used and tweaked slightly for virtual students (for instance, using Zoom breakout rooms for small group work).
- May feel to students the closest to the Centre classes that they expect.
- One of the easiest models to move to fully remote teaching.

Considerations:

- Classroom management will require special attention: instructors must engage two separate groups of students in a common experience, run the technology, and adjust their embodied classroom practice in addition to teaching the material.
- Groups A, B, and C will need to be integrated, maybe by shuffling membership in Group A and B.
- This model does not engage remote students who may need asynchronous resources: watching 90 minutes of a recorded conversation between other people every day is not the best way to learn. Creating equivalent alternatives (e.g., recording microlectures, creating discussion forums for parallel asynchronous discussions, moving activities and quizzes to Moodle) may require additional prep time.
- Outdoor classes may be challenging due to limitations in connecting virtual students in outdoor spaces.

Contingency: If we had to move back to fully remote teaching, all students would effectively join Group C and attend each class virtually.

Visual representation:



Example:
Inkas Mayas Aztecs (ANT elective), during a week that covers the Inka Empire. Course goals are for students to be able to compare ancient states, interpret archaeological data, and synthesize and communicate research.
Classroom: Y114 (distanced capacity of 8 students)
Enrollment: 15 students- 12 on campus (though one is in quarantine this week after a potential exposure at his Bonner service site), 3 virtual (1 in Nashville, 1 in rural Fleming County with fluctuating internet, 1 in Vietnam. The latter two are usually unable to join synchronously because of bandwidth and time zone).

Day	Outside class	During class	Students
Monday	Read textbook chapter, write essay comparing/contrasting hypotheses of Inka state formation.	Interactive lecture and think-pair-share on Inka state formation	Group A (6 students) in the classroom, Group B plus virtual students join via Zoom using breakout rooms for think-pair-share, Fleming Cty and Vietnam students look at posted slides, watch video of Zoom session, and email response to think-pair-share prompt
Tuesday	Read research article on regional population dynamics, bring outline of article to class.	Interactive lecture on Inka political strategies, small group discussion on article, group synthesis and discussion of regional survey data presented in the article	Group B (5 students because one is quarantined) in the classroom, Group A plus virtual and quarantined student join via Zoom using breakout rooms for small group discussion, Fleming Cty and Vietnam students look at posted slides, watch video of Zoom session, and collaborate asynchronously on a Google doc to discuss the article.

FLIPPED BLENDED APPROACH

Content delivery occurs asynchronously through readings, videos, lectures, etc. posted on Moodle. Students engage with the content through quizzes, homework, etc. to be completed before class. Synchronous class meetings are devoted to discussion, problem-solving, and other active learning. Content progresses each class period. The CTL has a video and resources on the Hybrid/Blended Synchronous Model.

Students: Some students attend in person, while the rest connect via Zoom. What follows is one way to organize this for a MTWF schedule:

Group A students are on campus; they attend class physically for 90 minutes on Monday and Wednesday, and virtually for 90 minutes on Tuesday and Friday.
Group B students are on campus; they attend class physically for 90 minutes on Tuesday and Friday, and virtually for 90 minutes on Monday and Wednesday.
Group C students are off campus and attend all class sessions remotely.

Tech set-up: All students access content in the same way, via lectures etc. posted on Moodle. Using the hybrid classroom technology described above, the instructor facilitates synchronous learning activities in the classroom. Moodle hosts content, resources, assignments, and recordings of synchronous activities or asynchronous equivalent alternatives.

Advantages:

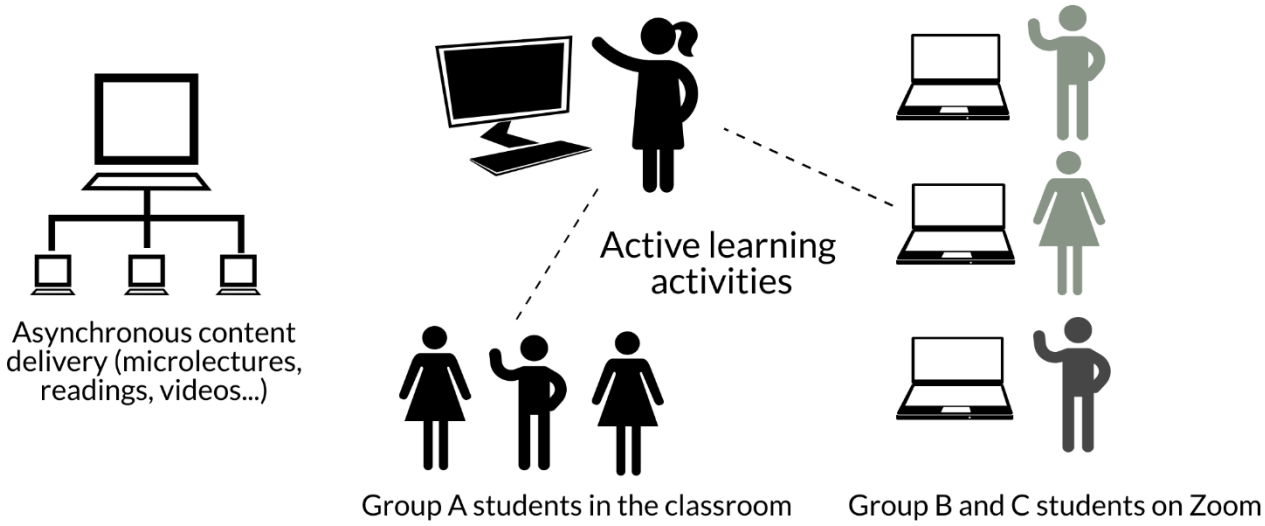
- All students access the same content virtually--the instructor only needs to create one version.
- It may be easier to manage active learning than lectures for virtually and physically present students (using Zoom breakout rooms for virtual students and in-class small groups, or having all students log into Zoom to work with partners or small groups). It may also be easier to imagine asynchronous alternatives to discussion, problem-solving, case study analysis, and other common flipped learning strategies.
- Research, pedagogical literature, and in some cases discipline-specific resources already exist to help you create flipped classrooms, and you might continue to use the flipped resources in future courses.

Considerations:

- Classroom management will require special attention to engage all students, to set up the technology, and to integrate students across all groups in a shared endeavor.
- While asynchronous students will be able to access the same content, they will need alternatives to synchronous active learning (such as Moodle discussion forums, opportunities to work through problems online, etc).
- Outdoor classes are challenging due to limitations in connecting virtual students in outdoor spaces, though the outdoors might be used for small group active learning activities.
- Flipping a class requires a good deal of up-front investment in creating content, plus time developing and guiding active learning in the classroom.
- Students need to buy in and understand how you are guiding their learning and must take responsibility for preparing ahead of the class. If lectures are added to regular out-of-class assignments, students will have more work overall (especially if both of their classes are flipped)—some existing out-of-class work such as problem-solving or peer writing revision could move into class time.
- Distancing requirements might require rethinking some active learning strategies. See here for some ideas on conducting active learning in distanced classrooms.

Contingency: If we had to move back to fully remote teaching, all students would effectively join Group C and attend each class virtually.

Visual representation:



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Inkas Mayas Aztecs (ANT elective), during a week that covers the Inka Empire. Course goals are for students to be able to compare ancient states, interpret archaeological data, and synthesize and communicate research.

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Enrollment: 15 students- 12 on campus (though one is in quarantine this week after a potential exposure at his Bonner service site), 3 virtual (1 in Nashville, 1 in rural Fleming County with fluctuating internet, 1 in Vietnam. The latter two are usually unable to join synchronously because of bandwidth and time zone).

Day	Before class	During class	Students
Monday	Read textbook chapter, watch 3 microlectures on Inka state formation	Answer questions about the lectures, then each team takes a different hypothesis for Inka state formation and generates expectations. They check in with the instructor, who gives them actual data. They use the data to evaluate their expectations, and record a short video explaining their work.	Group A (6 students) in the classroom, Group B plus virtual students join via Zoom using breakout rooms to work on expectations and analysis, with the instructor moving around between the two teams in the classroom and the three virtual teams in breakout rooms. Fleming Cty and Vietnam students collaborate asynchronously on a Google Doc to do the same activity.
Tuesday	Read a research article on regional population dynamics, look at an interactive slide presentation on Inka political strategies	Watch the small group videos, then discuss—which hypothesis is better supported? In small groups, create a reverse outline of the research article, then exchange outlines with another group and give feedback. Add results to the slide presentation where they support or question conclusions; full class feedback.	Group B (5 students because one is quarantined) in the classroom, Group A plus virtual and quarantined student join via Zoom using breakout rooms and google docs for small group collaboration. Fleming Cty and Vietnam students watch the videos on Moodle and asynchronously complete the reverse outline and slide presentation annotation; instructor gives feedback.

BRAIDED APPROACH (SMALL LIBERAL ARTS COLLEGE VERSION OF HYFLEX)

Content delivery occurs asynchronously through readings, videos, lectures, etc. posted on Moodle. Class times are used for active learning. Students alternate between facilitated and independent modes. Content progresses during each class period regardless of whether the students are in facilitated or independent mode that day. This model is a small liberal arts college version of HyFlex that emphasizes close work with the instructor; unlike true HyFlex (described here), options are assigned and rotated rather than chosen by students and close contact with the instructor is emphasized.

Students: *Group A* engages in facilitated learning activities in the classroom on Mondays and Wednesdays and independent activities on Tuesdays and Fridays.
Group B engages in facilitated learning activities in the classroom on Tuesdays and Fridays, and independent activities on Mondays and Wednesdays.
Group C students live off-campus and always engage in independent activities. They meet face-to-face with the instructor during office hours and other sessions depending on their time zone, etc.

Tech set-up: This model differs from the Flipped Blended Model in that hybrid classroom technology is generally not used (there might be some days when you want to bring everyone together, perhaps on occasional Wednesdays in the scheme above). Students engage each piece of content and activity EITHER through a facilitated activity, in which they are physically present in the classroom with the instructor, OR through an independent activity. Independent activities could be synchronous (e.g. a Zoom meeting with a small group, a TA-facilitated discussion, live collaboration on a project via a chat app and a shared Google Doc) or asynchronous (e.g. a problem set, a discussion forum, a case study analysis).

Advantages:

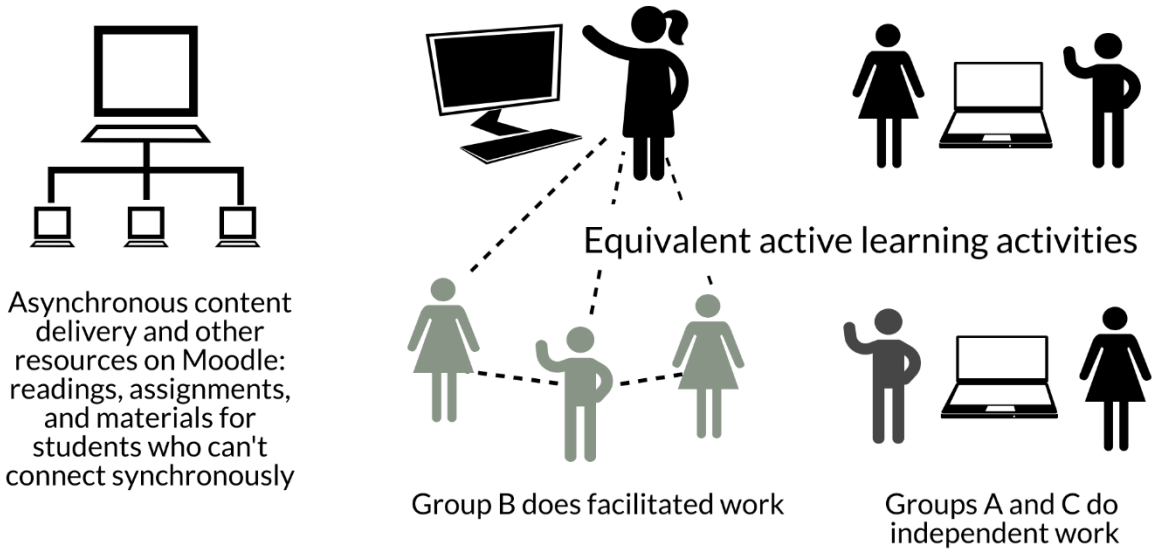
- Technology and classroom activities do not need to simultaneously engage both virtual and physical students (which avoids technological glitches that might create a less ideal experience for everyone).
- Facilitated experiences take advantage of physical presence in the classroom with the undivided attention of the instructor and the independent activities are designed as such, thus improving the quality of both. Some things just might not be possible simultaneously for a blend of virtual and physical students.
- The instructor can take advantage of the literature on the flipped classroom model to create asynchronous content that can used in future classes.
- Asynchronous students can participate more equitably, by accessing the same content as everyone else, along with independent learning activities designed for online. Asynchronous content delivery plus independent activities can continue if everything shifts online during a block.
- The course can advance through content easily because each session covers new content.
- Facilitated sessions could regularly take place outdoors because virtual students don't need to connect.

Considerations:

- A lot of preparation is required, even more than for the flipped blended. The instructor creates content in advance, prepares two alternatives (facilitated and independent) for all activities, and gives feedback on independent activities/meets with students in Group C.
- Students only see the instructor every other class. Students need to understand both facilitated and independent activities as class time, and the instructor should be present in other ways.
- Perhaps easy for asynchronous students to disengage; special attention must be paid to connecting to them.
- As in other flipped models, adding recorded lectures to existing out-of-class work plus class time for activities increases the overall workload if some traditionally out-of-class work doesn't move into the classroom.
- Distancing requirements might require rethinking some active learning strategies. See here for some ideas on conducting active learning in distanced classrooms.

Contingency: If we had to move back to fully remote teaching, the instructor could facilitate work virtually.

Visual representation:



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Day	Before class	During class	Students
Monday	Read textbook chapter, watch 3 microlectures on Inka state formation	Facilitated: Instructor answers questions about the lectures, then as a full group the class evaluates different hypothesis for Inka state formation and generates expectations. The instructor provides actual data and leads the group to evaluate their expectations. Independent: Students post questions about the lecture to a discussion forum, then generate expectations. Moodle conditional release allows them to access data once they've posted their expectations, and they evaluate and record a video explaining their work. The instructor later provides feedback.	Group A (6 students) does the facilitated activity in the classroom in two teams. Group B (6 students) plus Nashville student and Fleming Cty student form 3 groups that meet physically or using Facetime, GroupMe, etc to complete the independent version. The student in Vietnam works through the activity asynchronously and exchanges chat through Moodle with the instructor.
Tuesday	Read a research article on regional population dynamics, look at an interactive slide presentation on Inka political strategies	Facilitated: Instructor leads discussion on the small group videos—which hypothesis is better supported? Class works together with the instructor to create a reverse outline of the research article, and then goes back to the slide presentation to discuss where data should be added. Discussion occurs outdoors, using laptops with a shared Google Doc for the outline and slides. Independent: Teams create reverse outlines of the research article and add new data to the slides. They exchange outlines and slides for peer feedback, and then turn them in through Moodle for instructor feedback.	Group B (5 students because one is quarantined) do the facilitated activity in the classroom Group A plus virtual and quarantined students do the independent version in teams; the Fleming Cty. student is able to connect synchronously over the phone. One team asks for permission to complete the activity later that evening so that the Vietnam student can participate synchronously over Zoom. Instructor provides feedback on their work.

DECENTRALIZED APPROACH

These classes could look more traditional, with some content delivery in class, or more flipped, with content delivery asynchronously delivered and class used for active learning. The instructor repeats the same in-person content for all groups, whether they connect virtually or are present in-person. Students alternate between working with the instructor, and working independently. This could feel something like the discussion sections in large undergrad classes.

Students: There are multiple options for this model, depending on course enrollment, classroom size, and balance of in-person and fully virtual students. Here is an option for a MTWF schedule:

Group A (on-campus students) meets with the instructor physically on Mondays and Wednesdays or for the first 45 minutes of each class period, and *Group B* (off-campus students) meets the instructor virtually on Tuesdays and Fridays, or for the second 45 minutes of each class period. The instructor repeats the same content and activities. When students are not meeting with the instructor, they complete independent activities either synchronously with classmates or a TA, or asynchronously. This method might include a substantial project-based learning component, in which students work together in decentralized locations and meet periodically with the instructor.

Tech set-up: Hybrid classroom technology is not used (except maybe occasionally to bring everyone together). Zoom is used for synchronous sessions with virtual students, and classroom or outdoor spaces are used for in-person meetings.

Advantages:

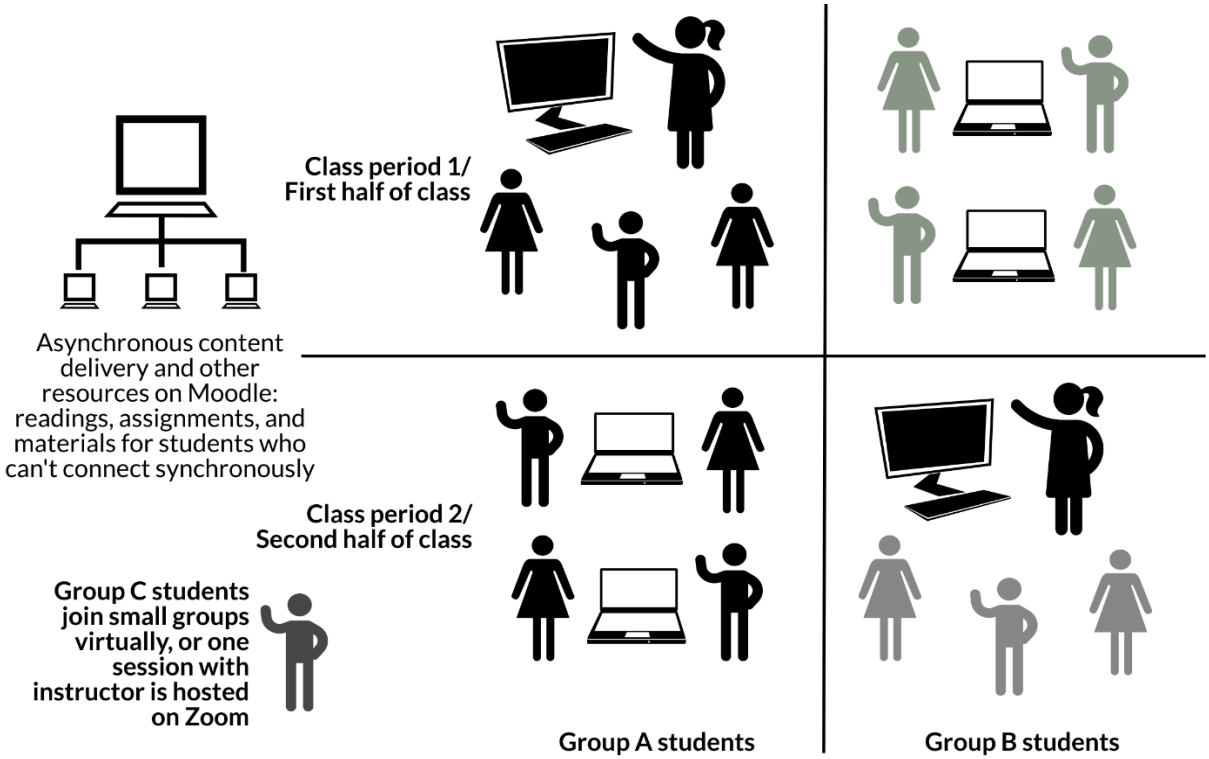
- Technology and classroom activities do not need to simultaneously engage both virtual and physical students (which avoids technological glitches that might create a less ideal experience for everyone). Instead, each modality gets the instructor's undivided attention. This guide to distanced active learning provides options for different modalities.
- The model maximizes the undivided attention of the instructor and access to the special characteristics of spaces on campus. This model may work well for some lab or studio classes—on-campus students rotate through performing a lab or throwing pots on the wheel, while other students work independently (for instance analyzing data or collaboratively writing an essay).
- Unlike the flipped braided model, in-person and independent activities complement each other (rather than replicate each other) so everyone on campus has the same experience for all content and activities.
- The instructor can take advantage of the literature on the flipped classroom model to create asynchronous content for use in future classes.
- Use of outdoor spaces is maximized. There may be other ways to decentralize students to avoid filling classrooms to capacity at all times, such as through sustained group projects that receive intensive mentoring.

Considerations:

- Asynchronous students would need options for activities and other learning opportunities. If the class is built to maximize the use of on-campus spaces like studios and labs, then all students living off campus would need robust alternative learning activities. Alternatives would also help if we needed to move everything online.
- Students participating in various modalities or groups would not have many options to interact.
- Students see the instructor for fewer hours, so the instructor would need to make sure students understand decentralized work as class time. Instructors will need to make an effort to be present outside of the classroom.
- Unlike the Braided (HyFlex) approach, the instructor repeats the content of each face-to-face session. This method could create challenges for sequencing (some students do the activity first, then the discussion with the instructor; others do the discussion and then the activity) and for progressing through course content. See here for additional examples of sequencing adapted from Nancy Chick's work at Rollins.

Contingency: If we had to move back to fully remote teaching, then students would still be able to work directly with the instructor via Zoom, and independently with small groups. The ease of the transition would depend on how much content was already virtual, and how much the course depended on access to campus resources like labs or studios.

Visual representation:



Example: (same scenario as the other models)

Day	Before class	During class	Students
Monday	Read textbook chapter, watch 3 microlectures on Inka state formation	Instructor meets Group A outside for 45 minutes to discuss and answer questions about Inka state formation, generating expectations for each hypothesis presented in the microlectures. Group A leaves the classroom to evaluate the hypotheses on the basis of the data provided, and to record a short video explaining their work. Group B spends the first 45 minutes of class working in small groups on Zoom to generate questions about the lectures and expectations for the hypotheses. The instructor joins the Zoom meeting for the final 45 minutes of class to work with Group B on using data to evaluate the hypotheses as a full group.	Group A participates in full group discussion with the instructor outside for the first 45 minutes of class, then stays to complete the task. The instructor moves to her office to meet Group B, which includes the virtual students, on Zoom to discuss their expectations and evaluate hypotheses. The Fleming Cty. and Vietnam students collaborate asynchronously to complete both parts independently.
Tuesday	Read a research article on regional population dynamics, look at an interactive slide presentation on Inka political strategies	The instructor leads two separate 45 minute discussions, either outdoors or on Zoom, on the findings from Monday's activity, discussing the hypotheses and how the data supports them. She answers questions about the article and the slide presentation. Students work together to create reverse outlines of the research article and annotate the slide presentation to add the data from the article where it best fits.	Group B (5 students because one is quarantined) join the instructor for discussion outside during the first 45 minutes, then completes the activity together for the second 45 minutes. Group A plus virtual and quarantined students do the activity in small groups, either over Zoom or outside, then join a Zoom session with the instructor for the second 45 minutes. The Fleming Cty and Vietnam students watch the recorded Zoom session, complete the activity asynchronously, and check in with the instructor during office hours over Zoom or the phone

FULLY REMOTE APPROACH

Faculty who will not be teaching from campus, or instructors of courses in which all students happen to be living off-campus, might teach fully remotely. If covid-19 conditional warrant, all courses might need to be taught in this mode. Your approach could look more traditional or more flipped, depending on the material and the instructor's preference. In the case of faculty teaching from home, students on campus might still meet to participate in course activities together.

Because we taught in this model in the Spring, faculty have a good idea of what it means to teach remotely. CTL has resources (the course on online/hybrid course design, the remote teaching Moodle page, and others) to support teaching remotely that can apply to this model as well as to the online components of the other models.

FULLY FACE-TO-FACE APPROACH

In some cases, it may happen that all students and the instructor for a course are on campus, and that the classroom capacity allows everyone to meet at the same time. In this case, class would proceed as usual. It would be wise to use Moodle to create a robust set of online resources and activities should we need to move everything online mid-block (as we did in the Spring) or should students need to quarantine mid-block and thus need to access the class remotely.