Designing Courses in a COVID-19 Environment

Purpose: This document provides models that faculty can use and adapt in designing their courses to meet the Course and COVID-19-related Policies in a manner that aligns with classroom technology capabilities. The description of models provided in this document are offered to the faculty as a resource. They are not a replacement to or extension of the Course and COVID-19-related Policies document.

Key Elements of COVID-19 Course Policies for Course Design
- Courses must be designed so that all learning objectives can be accomplished online (Course Policy #13)
- Courses must use classroom F2F time to augment learning and foster a learning community (Course Policy #13)
- Students who participate remotely must have regular real-time (synchronous) interaction with the faculty member and other students (Course Policy #15)
- Faculty must use Moodle as the launching platform for all online class activity (Course Policy #18)
- Students must wear masks entering or leaving the room and at all times in the room (Course Policy #6)
- Classroom furniture may not be moved from their designated location. All chairs and desks should be facing forward, though they may be turned so that students face each other, when deemed appropriate by the professor (Course Policy #4)

Terms:
- **Classroom F2F:** Learning that occurs in a physical classroom
- **Online synchronous:** Learning that occurs with students and faculty interacting in real time, often over a video teleconference platform like Zoom.
- **Asynchronous:** Learning that occurs through activities and interactions that do not happen in real time, such as students watching pre-recorded lectures and interacting through a discussion forum or video forum.
- **Video teleconference:** Communication conducted over the internet in real-time that includes both video and audio, such as Zoom and Google Meet.
- **Split class:** A class that has been formally designated as a class that needs to divide the students into two groups because the classroom is not large enough for all the students to meet in the classroom at one time.

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Key Classroom Technology Limitations:
There are three important aspects of classroom technology for faculty to consider: 1) limited WiFi capacity means it might not work for all students in a classroom to be on Zoom from their own personal computers at the same time, 2) microphones are directional and have a limited range, and 3) the camera's are adjustable, but do not automatically move to track the speaker. More details and recommended strategies are presented in the "Technology Limitations" table at the end of this document.

How to use the COVID-19 Course Design Models Table:
Find the approach under "How you normally use class time" that best fits the way you teach the course under normal conditions. Read the model descriptions under "Synchronous-rooted Models" and "Asynchronous-rooted Models" and identify a model that will work best for your course. As you apply the selected model, make modifications so that it best fits the course and your teaching style. Please remember that all courses scheduled as classroom F2F courses need to include regular online synchronous interaction and classroom F2F time to augment learning and foster a learning community.

If you would like assistance selecting or applying a model to design your course, make an appointment with an Academic Development instructional designer. For assistance with Moodle or other instructional technology, contact ITS.

As you design your course, keep in mind that asynchronous components, like pre-recorded lectures are considered "seat time" and can replace some of the time that students would normally be in class.

Recording Zoom Sessions: Faculty members are encouraged to record each class Zoom session, but, to comply with FERPA, the recordings may only be shared with students in the class. We recommend setting up your Zoom sessions through the Moodle course site to make FERPA compliance easier.

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COVID-19 Course Design Models		
How you normally use class time	Synchronous-rooted Models	Asynchronous-rooted Models
Lecture-discussion (Content delivery & discussion/dialog)	**[RECOMMENDED]** For one scheduled class session (or two if it is a Mon, Wed, Fri class), conduct the synchronous lecture-discussion completely remotely through a Zoom session (no students in the physical classroom for that session). Use breakout rooms in Zoom for any small group discussions. Consider using a shared Google doc to facilitate or supplement discussion. For the second (and/or third) class session, divide the class time into time designated for classroom F2F and time designated for synchronous online (e.g., the first half of class is for students who want to connect in the classroom and the second half of class is for students who want to connect through Zoom). Use asynchronous strategies (e.g., pre-record lecture and have students dialogue through a written or video discussion forum) to address material you are not able to cover synchronously. For a split class, you could alternate the days or weeks that students are able to participate in the classroom F2F discussion. An alternative take on this model would be to have half of the class sessions be for the online students and half the class sessions be for classroom F2F	Pre-record lectures and post them in Moodle. Conduct discussions during the scheduled class times. For the discussions, have two separate discussion groups: one discussion among classroom F2F students and one discussion among online synchronous students. Consider having both groups of students record their discussion in a single Google doc shared among all students so the two groups can see what the other group discusses. You can have both groups discussing simultaneously or have part of the class time designated for the classroom F2F discussion and part of the class time designated for synchronous online discussion. The advantage of the latter is that you can be fully engaged in each groups' discussion. If the two groups discuss simultaneously, the discussions will be largely facilitated by the students. The professor will need to move between the two different discussions so she or he will not function as the central discussion facilitator. If the groups meet simultaneously, consider having prompts to guide the student discussions. You might also consider using a TA to help operate the Zoom session and/or moderate discussion.

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students (e.g. Tues is for classroom F2F students, Thurs is for synchronous online students). Cover the same material both days. Use asynchronous strategies (e.g. pre-record lecture and have students dialogue through a written or video discussion forum) to address material you are not able to cover synchronously.

Conduct lectures in classroom F2F and synchronous online (i.e. Zoom) at the same time. For the discussion portion, have two separate discussion groups: one discussion among classroom F2F students and one discussion among online synchronous students. Have both groups of students record their discussion in a single Google doc shared among all students so the two groups can see what the other is discussing.

You can have both groups discussing simultaneously or have part of the class time designated for the classroom F2F discussion and part of the class time designated for synchronous online discussion. The advantage of the latter is that you can be fully engaged in each groups' discussion, but you might need to cover some material asynchronously (e.g. pre-record lecture and/or have written or video discussion forums).

If the two groups discuss simultaneously, the discussions will be largely facilitated by the students. The professor will need to move between the two different discussions so she or he will not function as

If your class is split, you could choose to repeat the discussion in both class sessions of the week so all students have an opportunity to have each discussion in a classroom F2F format. In that case you might conduct additional discussion asynchronously due to the repetition of material covered during class time. For Mon, Wed, Fri split classes, you might only have classroom F2F two days of the week to make for a simpler rhythm. In that case, the material from the third day could be taught synchronous online the third day or asynchronous.

You might also consider using the Chat tool in Moodle as a way for classroom F2F students to communicate if you want students to not only discuss with the students sitting next to them or if students find that physical distance and masks inhibit communication.

If you use a shared Google doc to record or help facilitate discussion, require that students bring their own device to class.

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If your class is split, you could also choose to repeat the discussion in both class sessions of the week so all students have an opportunity to have each discussion in a classroom F2F format. In that case you might conduct additional discussion asynchronously due to the repetition of material covered during class time. For Mon, Wed, Fri split classes, you might only have classroom F2F two days of the week to make for a simpler rhythm. In that case, the material from the third day could be taught synchronous online the third day or asynchronous.

You might also consider using the Chat tool in Moodle as a way for classroom F2F students to communicate if you want students to have small group discussions with the students not sitting next to each other or if students find that physical distance and masks inhibit communication.

If you use a shared Google doc to record or help facilitate discussion, require that students bring their own device to class.

If using this model, consider using a TA to help operate the Zoom session and/or moderate discussion. | |

How you normally use class time	Synchronous-rooted Models	Asynchronous-rooted Models
Flipped classroom (In-class time used for problem solving/application/ synthesis work and/or discussion)	**[RECOMMENDED]** Pre-record lecture/content and post it in Moodle. Use scheduled class time for problem solving/application/synthesis work. Have the students work in modality-specific groups or pairs (i.e., group or pair online students together and classroom F2F students together). Consider using Google Docs or other apps to organize/record students' thinking. If you have a split class, you can repeat the problem solving/application/synthesis work twice each week so all students have the opportunity to do the activity in the classroom F2F format. Use asynchronous strategies (e.g., pre-record lecture and have students dialogue through a written or video discussion forum) to address material you are not able to cover synchronously. If an activity requires it, you may want to have students bring a portable white board or use an app like Google Draw or GoBoard.	Pre-record lecture/content and post it in Moodle. Use asynchronous student interaction, such as a discussion forum (written or video), for problem solving/application/synthesis. Use one or two scheduled class sessions each week for synchronous problem solving/application/synthesis work. Have the students work in modality-specific groups or pairs (i.e., group or pair online students together and classroom F2F students together). Consider using Google Docs or other apps to organize/record students' thinking. Repeat the synchronous activity twice each week if you have a split class, or if you want to have classroom F2F students meet one day and synchronous online students meet another day to avoid going between the two modalities in the same class session.

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How you normally use class time	Synchronous-rooted Models	Asynchronous-rooted Models
Active Learning (Class time used for construction of knowledge)	**[RECOMMENDED]** Deliver content and facilitate activities/discussion in Zoom synchronously using breakout rooms for small group activities and discussion (no students in the physical classroom for that session). Use one of your scheduled class sessions each week for classroom F2F interaction through discussion. Divide the class time with part of the time designated for classroom F2F interaction and part of the time designated for synchronous online discussion. Use asynchronous strategies (e.g., pre-record lecture and have students dialogue through a written or video discussion forum) to address material you are not able to cover synchronously.	Pre-record content delivery and have asynchronous learning activities. Use that asynchronous instruction as preparation for a synchronous Zoom session during one of the scheduled class times. Consider holding classroom F2F group work days during another scheduled class time each week. You can use this time for problem solving, application, and/or discussion. To engage students learning online for the group work days, have the online students work together in a Zoom session or, for an asynchronous solution, have classroom F2F students take notes in a digital format and/or record the session for online students to view later. If you take the asynchronous solution, consider setting up a discussion forum for online students to process through dialogue. For split classes, ask students who can't fit in the classroom to meet elsewhere F2F on campus while still observing distancing and masking policies, or, synchronously in Zoom during the group work day. Alternate each week so each group of students has a chance to be F2F in the classroom.

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How you normally use class time	Synchronous-rooted Models	Asynchronous-rooted Models
Lecture only (Content Delivery)	Conduct lectures from the physical classroom while also streaming the lecture through video teleconference, such as Zoom, using the in-room technology (web camera). Be sure to repeat questions from students in the classroom so that students participating through Zoom hear the question before you answer. Consider using a TA to operate Zoom during the class session. For split classes, assign students to days they are to join in the classroom. Remember that students participating through Zoom may not be able to hear the student side of any discussion that happens.	**[RECOMMENDED]** Pre-record lectures and post them in Moodle. Use exercises to check comprehension, like open book quizzes that can be automatically graded by Moodle or brief reflections. Use scheduled class time for Q&A/open discussion. Consider dividing scheduled class time into time designated for classroom F2F and time designated for synchronous online (e.g., The first half of class is for students who want to connect in the classroom and the second half of class is for students who want to connect through Zoom). For split classes, assign students the days they are to join the classroom F2F session. Use pre-recorded lectures to provide content that would normally be delivered in 1-2 class sessions each week (e.g., Tues or Mon/Wed) and during the scheduled time for those sessions, have Q&A/open discussion in the classroom and online. Lecture live over Zoom for the other class session(s) each week (e.g., Thurs or Fri). For the 1-2 class sessions that are Q&A/open discussion, consider dividing class time into time designated for classroom F2F and time designated for synchronous online (e.g., the first half of class is for students who want to connect in the classroom and the second half of class is for students who want to connect through Zoom). This will reduce technical complications.

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Key Classroom Technology Limitations			
Technology	Limitation	Explanation	Recommendations and Strategies
Zoom and WiFi Capacity	Limited internet bandwidth means all students may not be able to be on Zoom at the same time while physically in the classroom.	WiFi access points have limited capacity. Video teleconferencing, like Zoom, requires the uploading and downloading of a lot of data. If all students in a class are trying to use video teleconference on the same part of Bethel's WiFi network, the video and audio quality can degrade to the point of being non-functional.	• Do not plan to have all students on Zoom or any video teleconference application in the classroom at the same time. • If you are using Zoom in a classroom and encounter choppy or freezing video and/or audio, turn off the video and only use audio. Audio uses much less data than video. • For small group discussions, we recommend that faculty put classroom F2F and online synchronous students in modality-specific groups. In other words, do not have on-campus and online students in the same small group.
Microphones	Microphones in classrooms have a limited range.	Most classroom spaces have a single microphone at the teaching station. It is designed to pick-up the audio of the instructor speaking from close proximity to the teaching station when facing the teaching station. Depending on the number of people in the classroom and the amount of sound absorbing material (e.g. coats) in the classroom, the microphone might have inadequate sound quality if the instructor faces	• Speak clearly and project • Try to stay close to the teaching station and face the teaching station when speaking. • Ask students participating by Zoom if they are able to hear you. • Repeat any questions or comments from on-campus students so that online students hear the question or comment. • As much as possible, design your course so that participation by online students is not dependent on online students hearing the voices of on-campus students. This includes avoiding large group discussions that include online and on-campus students

		away from the instructor station or walks across the room. Microphones may not reliably pick-up student voices.	in the same discussion at the same time. Possible alternatives: ○ Consider using modality-specific small group discussions instead of whole-class discussions ○ Consider pre-recording lecture material, having large group discussions held through video teleconference (e.g. Zoom) only, and using some of the scheduled class time as Q&A time with some of that Q&A time designated as classroom F2F Q&A and some as online synchronous Q&A.
Camera	Cameras in classrooms have a limited angle of view.	While cameras have a limited angle of view and do not automatically move to track the speaker, they are on a stand that can be manually adjusted.	Be aware of what the camera is capturing and try to stay in the camera's view when teaching over Zoom or recording.

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