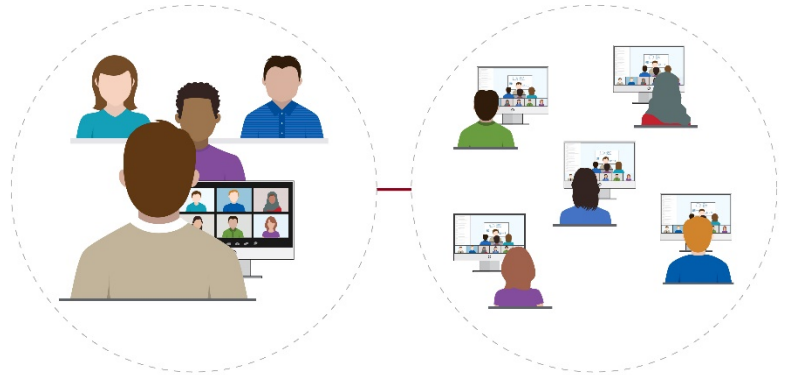


Teaching with a Bimodal Approach

A new option for Fall 2021

What is a bimodal approach?

Basically, it is a combination of two real-time (synchronous) teaching spaces. One physical space in a classroom on campus with a reduced number of students (to meet the physical distance measures established by Ottawa Public Health) and a second virtual space using technology offered by the University of Ottawa (*Zoom, Adobe Connect or MS Teams*) to reach other students who will be taking the same course remotely.



What technologies are needed to teach with a bimodal approach?

Beginning in September 2021, classrooms on campus will be equipped to offer bimodal instruction. To do so, the multimedia podiums are in the process of being upgraded to provide the technical features necessary to communicate easily with students at a distance, all while being with students in the classroom.

What are the steps involved in offering bimodal instruction?

The approach is similar to teaching via a virtual platform (*Zoom, Adobe Connect or MS Teams*), but in a context where the virtual component of the class session is initiated from a classroom with a reduced number of students. Essentially, the multimedia podium in the classroom serves as an anchor for both learning spaces (the one for students in the classroom and the one for students at a distance).

Summary of Steps

1. Open the podium
 - Configure settings for the class (microphone, sound, screen, lighting, etc.)
2. Open an Internet browser
3. Access a virtual teaching platform (*Zoom, Adobe Connect or MS Teams*)
4. Open a virtual meeting
 - Configure settings for online participants (microphone, webcam, chat, list of participants, etc.)
5. Share the presentation or screen

Classroom screens allow the transmission of information shared via the chosen virtual teaching platform (PPT presentation, web browsing, etc.) and visual access to students who are at a distance.



Professor's view at the multimedia podium - Touch screen, computer, keyboard, telephone for technical support, display monitor (on the ceiling).



Student view – Presentation of content and visual of students at a distance.

What are the recommended teaching strategies?

Considering that the technology used to connect the on-campus classroom to distance students is the same technology that has been used for several months for distance instruction (*Zoom, MS Teams or Adobe Connect*), the teaching strategies to adopt are similar.

First, the use of the Virtual Campus (Brightspace) to establish a central space for communication, collaboration and evaluation remains the first element to be implemented for all students (whether they are physically on campus or at a distance). The Virtual Campus allows the sharing of the course syllabus and all materials (readings, images, diagrams, multimedia components, etc.) that support a course. It is also in this *asynchronous* virtual space that it is possible to communicate with all students (on campus and remotely) using some simple tools (announcements, emails and discussion forums).



For the *synchronous* parts of a course (in class and at a distance), the teaching strategies rely on the active participation of students. The strategies typically used in the classroom (such as questioning, small group work, debating ideas, problem solving, case study) can also be used in bimodal instruction. With the tools available in the chosen virtual teaching platform (such as chat, polls, whiteboard, breakout rooms), it is possible to fully engage students at a distance.

In addition, the establishment of clear standards for communication allows for fluid exchanges between the two groups of learners. Here are some important elements to consider.

- Establish if students can ask questions at any time during the session or if specific times will be designated for questions.
- Clarify how students can intervene during the session (raise their hand in class and raise their virtual hand online; post a comment or question in a dedicated chat area; simply open their microphone and speak, etc.).
- Paraphrase questions asked to ensure that all students (both in class and remotely) understand the context of the answers given.
- Ask questions and solicit answers/involvement from both in-class and distance students.
- Use different modes of communication (saying information orally, writing it on the board/slideshow, adding it to the Virtual Campus) when communicating important ideas.

Tools to foster participation

- Enable a chat room to allow students to ask questions about the content being discussed.
- Ask questions to start the session (polling tool) in order to provide dynamic feedback on the concepts discussed in the previous session.
- Provide problems or cases to be solved as a team using the breakout rooms for remote students.
- Use the whiteboard to brainstorm on a given topic.

Finally, teaching using a bimodal approach creates a more flexible learning environment that addresses the particular needs or constraints of students. It is also a means of adapting to exceptional circumstances (such as those currently experienced due to the pandemic). By making a few adaptations to a course, and especially by leveraging the potential of the tools offered in virtual teaching platforms, it is possible to offer a rich and stimulating learning experience for students who will be in class on campus as well as for those who will be joining remotely.