Remote teaching: a practical guide with tools, tips, and techniques

REMOTE TEACHING: A PRACTICAL GUIDE WITH TOOLS, TIPS, AND TECHNIQUES

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CONTENTS

QUICK START OVERVIEW AND RESOURCE DOCUMENTS

The Quick Start Overview below can be used as a reference or to dive right in. In the main chapters of this eBook, we explain each of these steps in greater depth. We anticipate updates to this eBook as the situation evolves. There are also video tutorials for how to do move to remote teaching throughout this ebook.

A summary of the key updates will appear here as they arrive.

Other **resource documents** **in this folder** that we include as part of this overall eBook:

- Syllabus template (see also Accessible Syllabus for inclusive design)
- Course calendar
- Online conversation skills/netiquette
- Tip sheet for students for online learning
- Worksheet: plan for online learning or work
- Academic integrity honour pledge
- Brightspace course template (import instructions here)

We provide **adaptable course questionnaires** to understand students' experiences and solicit feedback, before, during, and after the course. Please copy these questionnaires before distributing to your own classes—by doing so, you'll be the one collecting their data.

All these documents can be adapted to your context if you choose to do so, including this ebook itself. They were designed as **Open Education Resources**.

The French version of this ebook is available here! We also have TA guides available, co-authored with amazing teaching assistants (English, French).

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form weekly and will continue to update this eBook as the situation evolves.

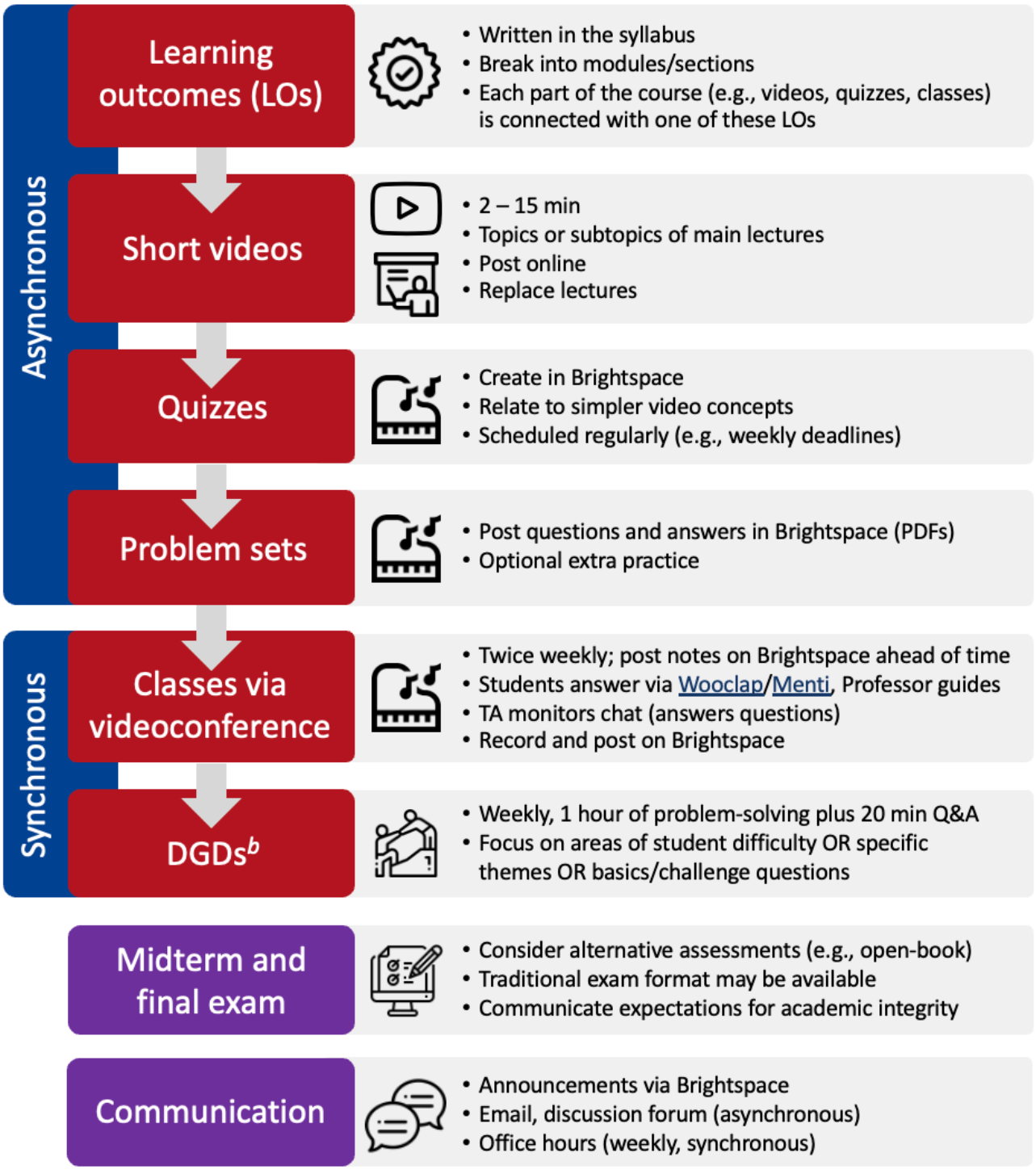
PDF version of the Quick start overview.

Moving to remote courses – Quick start overview

Suggestions (see guide for explanations, options)	Method/Tool
 1 Identify the **essential learning outcomes** or topics. At the end of the course, what MUST learners know, be able to do, and value? Break LOs into modules/sections.	PDF Post in Brightspace
 2 How will you **share content**? For example: curate or record short video lectures (2–15 min) or text with main content. Use videoconference time to address more complex ideas and work through problems. If using synchronous[a] methods, also record the session to make available asynchronously[a].	Asynchronous[a]: record videos, post on YouTube and link through Brightspace Synchronous[a]: Teams/Zoom
 3 **Offer practice with feedback** These can include: optional practice sets with answers (async.), group work on problem sets during videoconference (sync.), using a response system. A workload calculator can help.	Async: PDFs with answers Brightspace quizzes Sync: Teams/Zoom & Wooclap/Menti
 4 Identify methods for **assessment** that focus on learning. Consider weekly interactive quizzes (async.), collaborative, open-book exams. Communicate academic integrity expectations and processes.	Brightspace quizzes Exams administered as Brightspace "assignments"
 5 **Identify methods for communicating** with students. Tell students what to expect, e.g., that you respond once daily to email and have office hours on Mondays 1 – 2 pm.	Brightspace announcements, Email, Teams/Zoom
 6 **Teaching assistants** can run DGDs[b], forums, make videos, or answer questions in the chat during classes.	Brightspace forum, Teams/Zoom, DGDs, Email
 7 **Support students** by being flexible and using inclusive approaches: the library and Academic Accommodations can help! Equity and wellness are major issues both for online learning and because of the pandemic. Students have not chosen to learn this way and may not have the needed tools or skills.	Ask students, consider alternatives, provide resources

- [a]Synchronous: everyone present at the same time, e.g., videoconference; asynchronous: students/professors contribute at their own pace and time (e.g., email, discussion forum); can still have deadlines. [B]DGD = Discussion group | Groupe de discussion (i.e., tutorials).
- Do what you can: it doesn't need to be perfect (is there such thing?) but it can still be a good learning experience, given this need for remote teaching.
- The Teaching and Learning Support Service (TLSS) provides support for many of the tools identified, especially Brightspace.
- There are excellent, detailed resources on creating remote courses. This guide is simply meant to be a quick way to get started.
- Suggestions welcomed! Icons from Freepik and Eucalyp from Flaticon.

One possible course format



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1.

WELCOME AND GUIDING PRINCIPLES

Welcome!

In this chapter

Overview

This resource is designed to help you convert your face-to-face class to a **remote course** as simply as possible. We walk you through the process, at each step giving a suggestion for a specific tool/technology—the uOttawa-supported one and our preferred tool if it is different. We also give an example and sources of additional information. We also created a **template of a course in Brightspace**, **syllabus**, and other resources that you can modify to suit your own course, if desired. These resources are available in the section called Quick start overview and resource documents.

We have all shared the experience of an emergency translation of in-person teaching to remote teaching in spring, 2020. Each of us improvised a distinct set of tools and approaches that worked in the short term and enabled courses to be concluded in a reasonable way.

The purpose of this guide is to support efforts to *plan* courses to be offered using remote instruction, identifying a set of tools with supporting examples that can be customized for courses. We are inspired by courses from Faculties of Science—the

University of Ottawa's Faculty in particular—but elements of this work should apply readily to many courses in other environments.

We also recognize that this emergency involves profound changes to every part of the university experience. Many of us must work under challenging circumstances at home to deliver something that we may have never seen before, let alone created. To be blunt, this transition is stressful.

This guide is intended to take some of the sting out of the process of having to work under such strange and challenging conditions.

We value feedback. In preparing this book, we dove into materials, tools, techniques, and research around best practices for teaching. We thought about ways to make the process as approachable as possible. We have surely missed things that would make this guide more accessible to colleagues and the process of planning remote teaching less stressful.

To this end, please contact us with questions, suggestions, and concerns. We check this form regularly and will continue to update this guide as the situation evolves.

Balance a simple approach with equity and quality

We recommend **keeping things simple** and using tools and methods that you are already **familia**r with, to the extent possible. There are so many options that if the ones provided don't seem like a good fit, please feel free to make changes or reach out (see the Chapter on "Where to find help and advice"). **Do your best to find the balance among simplicity, equity, and educational quality.**

The fact is that many of us have not seen examples of a "good" remote learning course. In a non-exclusive way, we will provide a number of examples of potentially successful courses and describe the strategy, approaches, and tools that were used to create those examples of success.

Consider how the pandemic may be affecting students

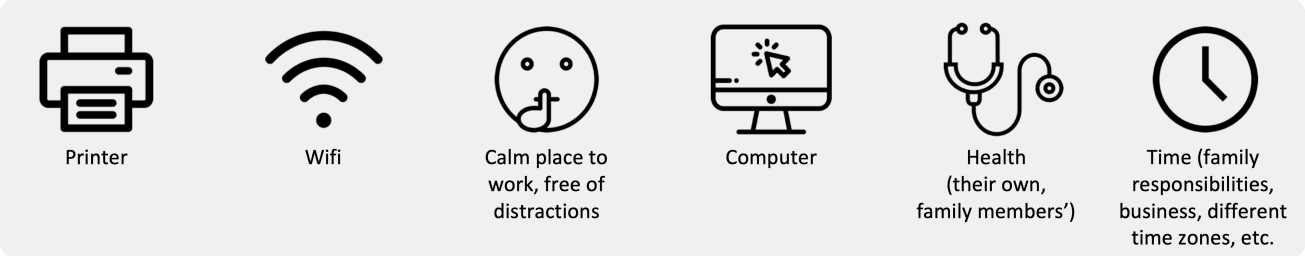
When designing a course for remote instruction, flexibility is important. In this pandemic situation, students have not CHOSEN to take a **remote course**. They are

being required to take courses remotely and many have not even have encountered remote learning or an **online course** before.

> **70% of students are concerned about the negative impact of remote teaching**, according to a recent survey conducted by the uOttawa Science Students' Association (n = 149).

Accessibility matters. Students may have limited access to essential materials for an online course or even to an environment that is suitable for concentration and learning. For example, students may: (i) have no printer, (ii) have poor or no wifi, (iii) not have a calm place to work, (iv) not have a suitable device.

It is vital to remember that we will be working through a global pandemic. Students, their family members, and/or their friends may experience risky health challenges related to COVID-19 as well as those that otherwise arise. Because of pandemic-related travel limitations, some students will be working in a different time zone. In addition to challenges that such time zone differences create that relate to delivery of live (**synchronous**) content, students also have other obligations associated with their presence in those remote locations (e.g. caring for family members or helping with a family business).



Many students are living with pandemic-induced challenges in addition to existing limitations with access, including for cognitive, hearing, visions, or motor reasons. Designing the course by considering these aspects from the start can benefit everyone and save time later.

Equity and inclusion are essential threads running through each section of this guide. We know there are many challenges in this situation, and wish to be as inclusive of all learners as possible.

A little about remote instruction

This fall transition is an example of **remote teaching** and not a formal **online course** for most of us. There's a full explanation of the differences here. Essentially, a **remote course** is a normally face-to-face course that is given a distance during time of an emergency to ensure teaching continuity, in this instance, because of the COVID-19 pandemic. A remotely taught course is a digital translation of a course that was originally intended to be given in person.

During this pandemic period, neither students nor instructors have any choice about using remote learning/teaching approaches. Considerations and flexibility should be given to the fact that neither is optimally equipped for remote learning/teaching. In contrast, online courses are designed for their medium. Their design usually involves the support of a team of online education experts, including instructional designers, graphic designers, and a production team. In a way, the distinction between remote teaching and a truly online course is one of degree, but the way content is delivered between the two approaches and indeed the content itself can vary significantly.

To go deeper

- A is for Accessibility — 12 top tips for designing an inclusive user experience
- Accessibility for Ontarian with Disabilities Act (AODA)
- Universal Design for Learning

Up next

Through each of the chapters that follow, we walk you through the steps of converting to a remote courses. Many course variations are possible and we encourage you to adapt these suggestions to best support the students in your course.

Please feel free to contact us at any time with questions, suggestions, and concerns.

In particular, we check this form each semester and will continue to update this guide as the situation evolves.

2.

GETTING STARTED

With this chapter, you'll set the stage to plan your course well.

In this chapter

To begin, gather information about the students in your course. Here are two main areas to consider before getting started with the design.

Who are the students?

Start by identifying what the students:

- Should already know (e.g., prior course knowledge)
- Have in terms of access to technological tools (e.g., do they have earphones, do they have a smartphone with a camera that works?), ideally by asking them
- Have experienced with a university course, ideally by asking them (e.g., first year versus fourth year students)

These will become considerations as you make decisions in the course. For most students, the answers to these questions will likely be as expected, but sometimes surprises arise. These include the students who would come and speak with you on the first day and ask you about particular accommodations. Remember that they cannot do this as easily under these new circumstances. Their voices may effectively

be silenced by circumstances. Asking some questions at the outset will help you avoid pitfalls that could exclude some students, who may not communicate with you if there is a concern or a gap.

How could students help?

Students can be involved in many ways. For example:

1. Through questionnaires you can ask for their opinions and experiences before, during, and at the end of a course. There are examples here of Google Drive **Forms** that can be adapted; the examples provided can be copied and modified for your own purpose.
2. Students can help create course content as teacher assistants, volunteers, or in other roles (e.g., videos, problem-sets).

To go deeper

Reflecting on your teaching

eCampusOntario developed a program called Ontario Extend, a **professional learning program** that "aims to empower educators to explore a range of emerging technologies and pedagogical practices for effective online and technology-enabled teaching and learning."

Analyzing the learning environment

TLSS created tools to design a blended course that works well for a remote course, too, including how to further analyze the learning environment.

Student involvement

Students can be involved in a number of ways, including being consulted, as collaborators, and co-creators.

Up next

In the next chapters, we will address how:

- To identify the course's essential learning outcomes (or topics)
- Content will be shared with students
- Assessment will work (e.g., practice, feedback, assignments, exams)
- Communication will work in the course (professor-student, student-student)
- Students can become effective at learning in this format
- To address wellness (e.g., mental and physical health)
- Teaching assistants can contribute
- To address equity during this remote teaching/learning experience

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3.

IDENTIFYING THE ESSENTIAL LEARNING OUTCOMES

With this chapter, you'll be able to identify the essential learning outcomes for your course.

Identify the essential learning outcomes (LOs)

The course's intended learning outcomes and your intentions for the course should guide each of the subsequent decisions you make, such as students' experience, class activities, and technology.

Identify the essential **learning outcomes** (LOs) for your course; course topics can be used here if you don't have learning outcomes ready yet. Often, many less important **LOs** or topics need to be removed due to space and time limitations in the course.

Examples of learning outcomes:

- Justify the mechanism of the reactions in the course using experimental evidence to compare possible reaction pathways
- Demonstrate how evolutionary and ecological processes interact
- Determine whether a given drug candidate is expected to be orally bioavailable; justify your decision
- Use the definition of the derivative to find the derivative of a function and check your answer using the quotient rule

Divide the learning outcomes into modules

Dividing the **LOs** into modules, sections, or chapters will break up the course into manageable chunks. Students will need opportunities to hear/see the important information (e.g., short lectures), practice, and receive feedback (e.g., problem sets with answer keys, quizzes, assignments, exams).

To go deeper

If you choose to transform topics into **LOs**, here is a guide from the University of Waterloo that can help.

Up next

In the next chapter, we will address communication and community-building in the course.

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4.

COMMUNICATION AND COMMUNITY IN THE COURSE

This chapter addresses communication and building community in the course, both between you and students and well as among students themselves.

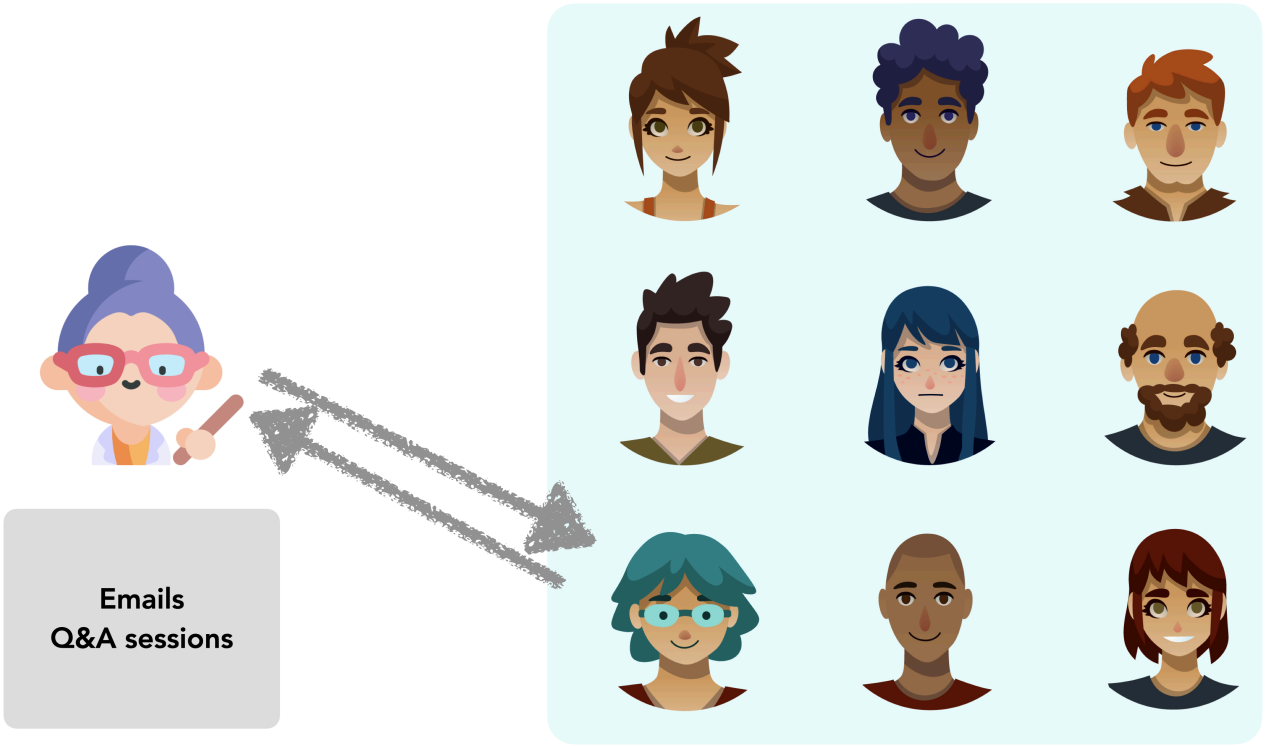
In this chapter

It will come as no surprise that clear, consistent communication is as helpful in online as face-to-face context, helping to orient the students in the course and to your expectations. You can tell the students both the **methods** they can use to communicate with you and the **response times** to expect.

Communicating with students and fostering communication between students are important aspects of community-building in a course. We list some examples below.

Communication between you and students

- Send Brightspace **announcements** for course messages, weekly.
- Create video messages
- Give (short) explanations in class



- Hold **office hours** via videoconferencing (e.g., Teams, Zoom), Mondays 1–2 pm
- Students can **email** you with confidential matters; you check email every 24 hours
- During videoconferencing (e.g., Teams, Zoom), students can **raise their hand** to ask a question or use the **chat** function.

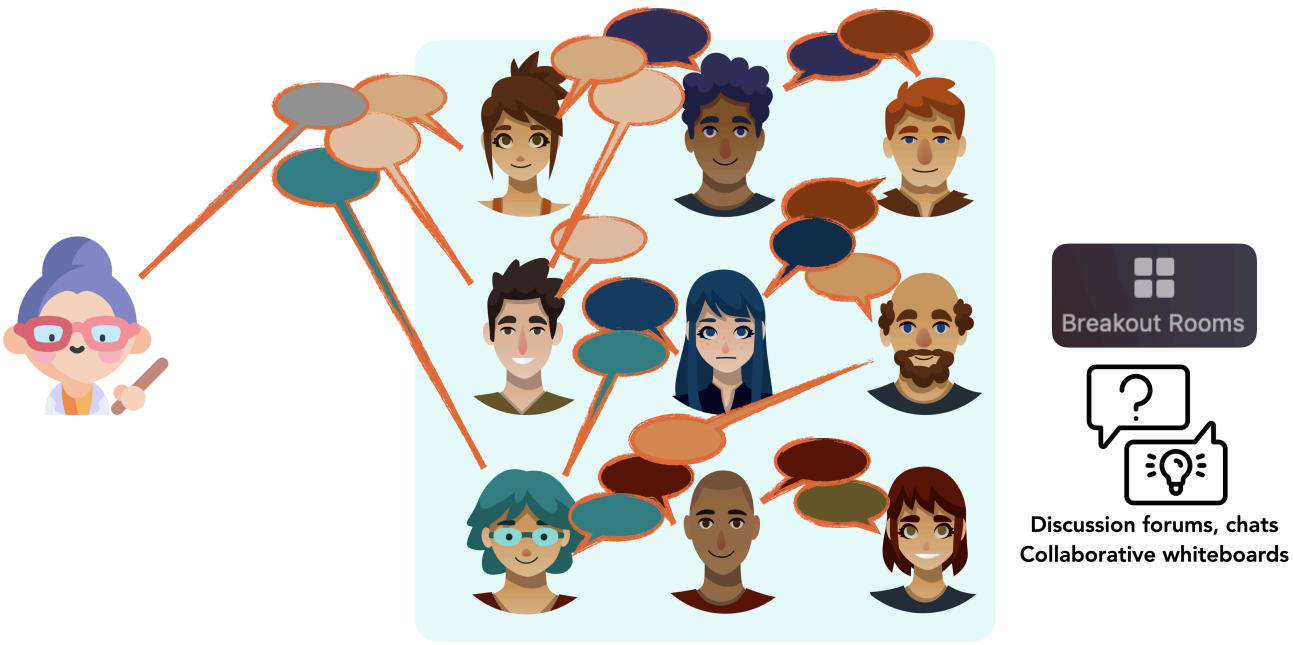
- The Brightspace **discussion forum** can be used for general or course-related questions; you could tell students that you check the forum every 24 hours
- Zoom can also be used as an intuitive and highly reliable tool for classes, includes options such as **breakout rooms** for students to have small group discussions
- Use polling in and between classes (see Synchronous sessions/classes for more details)
- Send periodic surveys to solicit feedback and better understand the student (templates can be found in Quick start overview and resource documents). Consider sending students a message with a summary of their responses and letting them know how you will address them (e.g., if some don't have a printer, are working in a different time zone, or don't have a webcam); you may also wish to respond to/email some students directly to answer individual questions or respond to concerns.

Building teacher presence online

The video below describes ways in which teacher presence can be developed online, part of transforming a course from an inhospitable one filled with dry content to an engaging learning experience.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=60#oembed-1

Communication between students



One of the key differences between online and in-person classes is that time before and after classes when students can casually connect with each other. They might be asking where to find class notes, for clarification about a section of the course, or making plans for the weekend. These casual discussions help build community in the course, including trust.

- During videoconferencing, students can use the **chat** function to speak with

each other or use **breakout rooms** for students to have conversations in small groups, such as introducing themselves in the first class
- Students can use the Brightspace **discussion forum** to communicate with each other (but will likely use their own method instead)
- Seminar courses have their own set of considerations and could be considered in some ways like online conferences; suggestions here.

More details on supporting connections between students can be found in the Chapter: Synchronous sessions/classes

Building community

In a remote learning setting, students don't have the opportunities to connect with each other that they're used to, such as conversations between classes. Here is one way to help students build connections with each other in an online space: How to create virtual check-ins

To go deeper

"How to make online a 'place' for learning" provides an in-depth description of creating community in the online environment, plus many other resources are cited therein.

Up next

In the next chapter, you can use the learning outcomes to decide which aspects need to be achieved **synchronously** and **asynchronously**. We will provide specific suggestions as to which tools and strategies to use when sharing content.

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

5.

CREATING AND SHARING CONTENT (E.G., VIDEOS)

By the end of this chapter, you'll be able to make decisions about **how to share the information** that students will need and the **process and setups** that are needed to make these suggestions work, such as curating and creating content.

In this chapter

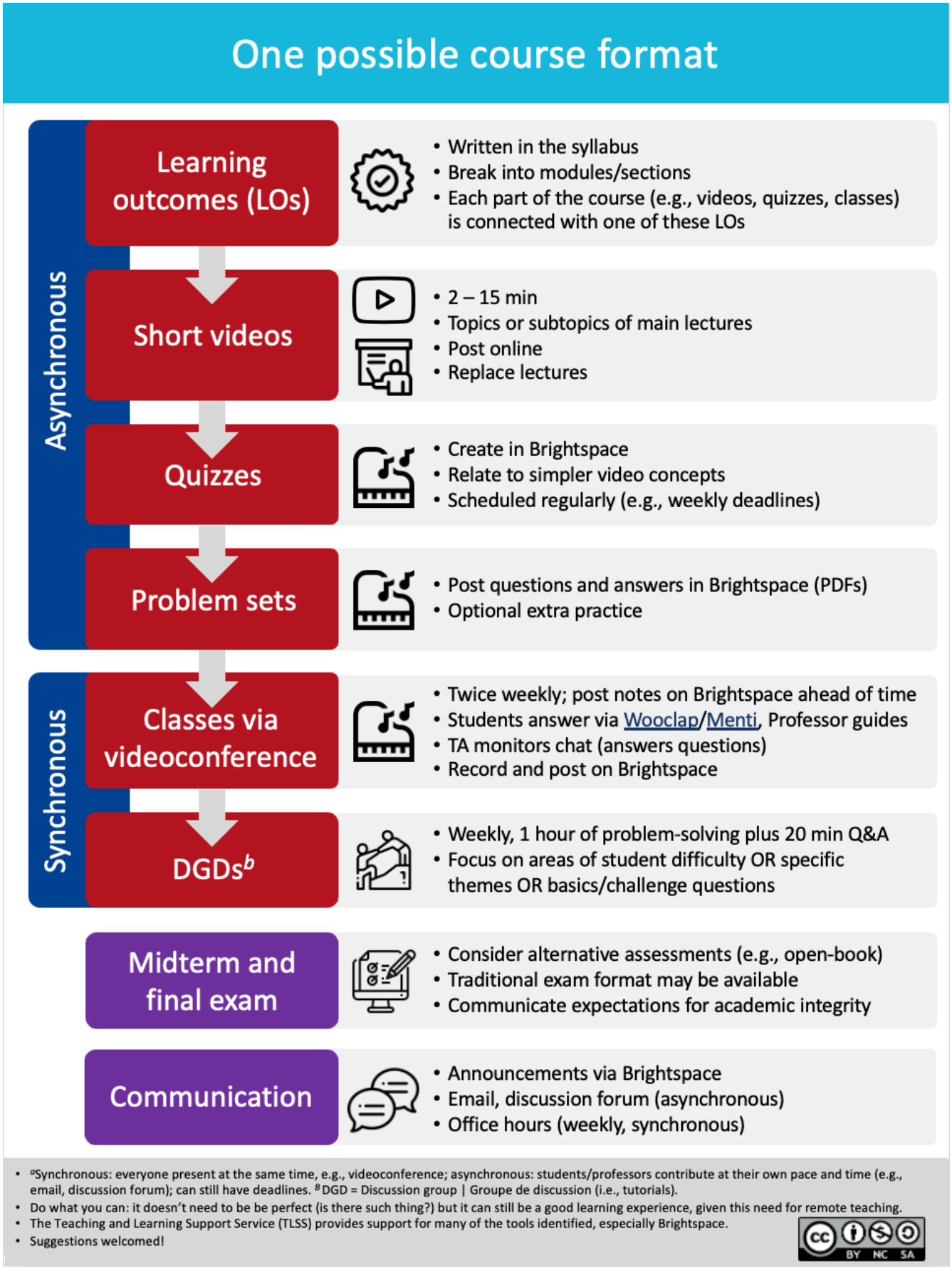
Suggested weekly overview

Ideally, each course decision will be **aligned** with:

- The intended learning outcomes
- Your intentions for the course, such as the learning experience you hope students will have
- Abilities: both yours and the students'

The following graphic depicts how the various elements can play out in a course.

Please feel free to adapt and share with students; the PPT file can be found in the chapter: Quick start overview and resource documents. PDF version here.


One possible course format
Asynchronous
Learning outcomes (LOs)
• Written in the syllabus
• Break into modules/sections
• Each part of the course (e.g., videos, quizzes, classes) is connected with one of these LOs
Short videos
• 2 – 15 min
• Topics or subtopics of main lectures
• Post online
• Replace lectures
Quizzes
• Create in Brightspace
• Relate to simpler video concepts
• Scheduled regularly (e.g., weekly deadlines)
Problem sets
• Post questions and answers in Brightspace (PDFs)
• Optional extra practice
Synchronous
Classes via videoconference
• Twice weekly; post notes on Brightspace ahead of time
• Students answer via Wooclap/Menti, Professor guides
• TA monitors chat (answers questions)
• Record and post on Brightspace
DGDs[b]
• Weekly, 1 hour of problem-solving plus 20 min Q&A
• Focus on areas of student difficulty OR specific themes OR basics/challenge questions
Midterm and final exam
• Consider alternative assessments (e.g., open-book)
• Traditional exam format may be available
• Communicate expectations for academic integrity
Communication
• Announcements via Brightspace
• Email, discussion forum (asynchronous)
• Office hours (weekly, synchronous)
• [a]Synchronous: everyone present at the same time, e.g., videoconference; asynchronous: students/professors contribute at their own pace and time (e.g., email, discussion forum); can still have deadlines. [B] DGD = Discussion group | Groupe de discussion (i.e., tutorials).
• Do what you can: it doesn't need to be be perfect (is there such thing?) but it can still be a good learning experience, given this need for remote teaching.
• The Teaching and Learning Support Service (TLSS) provides support for many of the tools identified, especially Brightspace.
• Suggestions welcomed!
BY NC SA

Building the course in Brightspace

The TLSS offers guides and support for creating each aspect of the course in Brightspace. You could also use the **Brightspace template** that we created—including the template of a **syllabus**—and adapting it to your own course's needs. These files can be found in Quick start overview and resource documents.

In the sections below, we describe how to make specific decisions about sharing content, plus ways to curate and create the content you want for your course, such as how to make videos.

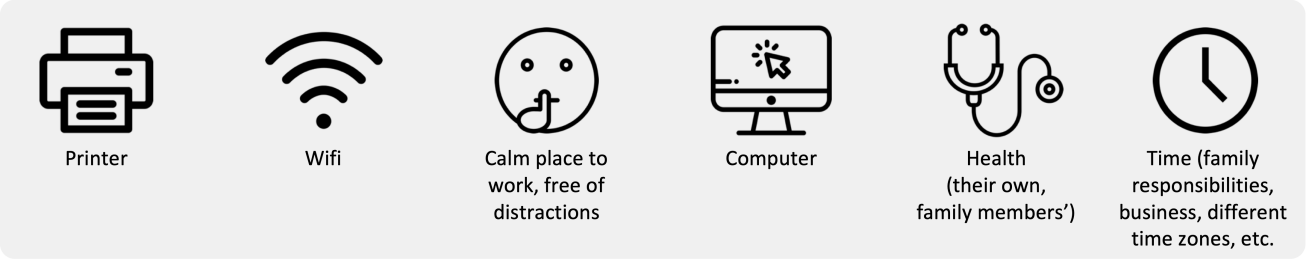
Deciding how to share content

Synchronous versus asynchronous

Ideally, the remote course will have a mixture of **synchronous** and **asynchronous** learning options.

A purely **synchronous** remote course would involve live streaming lectures without recording them. Such as format is hard on learners, teaching assistants (**TAs**), and professors for many reasons:

1. **Technology limits access**: students with poor/no wifi struggle to hear, see, and participate. Dropped connections mean missed information. Working in different time zones make attendance difficult.
2. **Many students will have a poor experience** if they can't connect efficiently. Long, live lectures are difficult to engage in. These issues can lead to poor student experiences and they will understandably complain. These issues could lead to problems of recruitment and retention down the road if courses gain bad reputations.
3. **A solely synchronous course creates obstacles to learning**. Students' **cognitive loads** can get too high with too many things to keep track of. Problems with equity can grow larger. The online format imposes a fixed pace onto students, who may find it too fast or too slow.



Students may not have access to elements needed to succeed in the course

Often, explaining basic concepts works well asynchronously (e.g., recorded videos).

Synchronous time (e.g., videoconference) can be used for students to practice in groups and receive immediate feedback. Videoconferences can be very useful in courses, but require high **bandwidth** and **immediacy**.

Considering bandwidth and immediacy

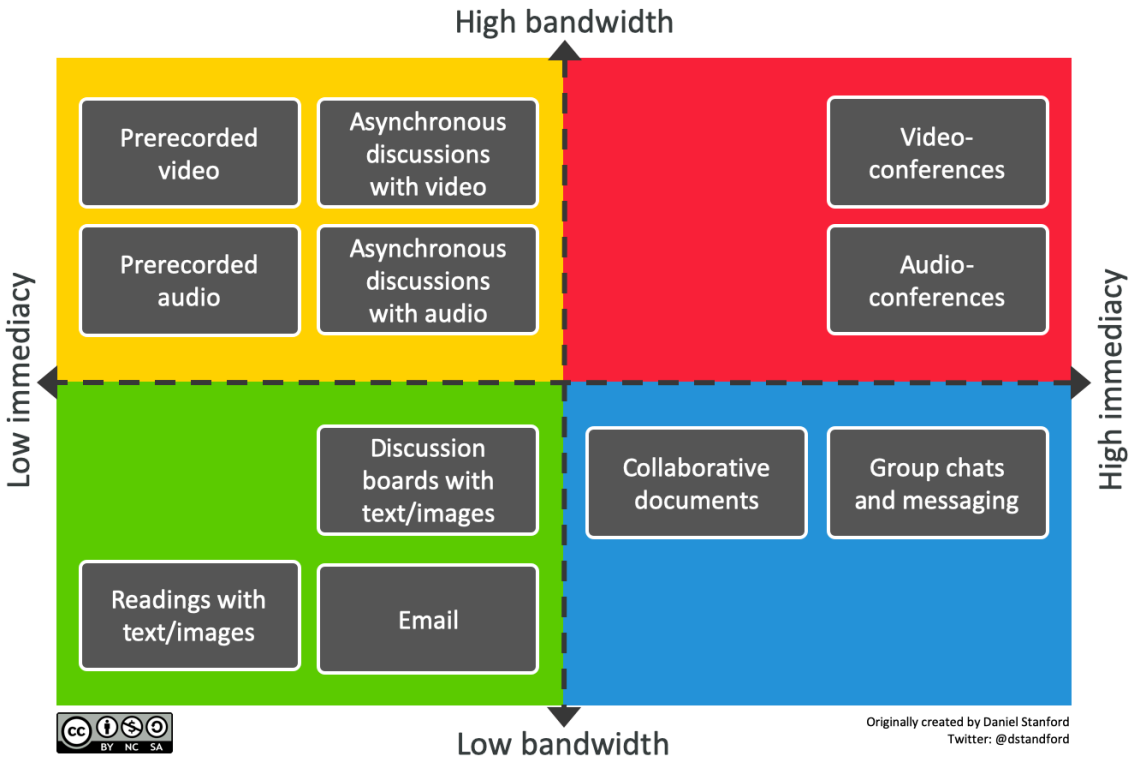
Bandwidth limitations will cause students (or you!) to lose access to the livestream intermittently or for a long time. **Bandwidth** problems are likely to arise for any number of reasons. Students (or you) will be working from locations that may be subject to wireless interference, remote, or they may not have access to high speed connections. **Bandwidth** problems can interfere with every part of synchronous teaching, like posing questions for students to discuss in a breakout room (like in Zoom). Students with **bandwidth** problems may need extra time to download materials before they can use them.

Challenges with immediacy can create or exacerbate equity issues. **Immediacy** refers to how quickly we expect responses from each other when interacting. For example, when present in person, we anticipate an immediate response when asking someone else a direct question (high immediacy); when we email, a delay is normal (low immediacy).

Immediacy requirements can present challenges. If students must work remotely, they may be working in an environment that is not particularly effective for studying at all times, or one in which there are many distractions or obligations; child care is one example. These issues apply both to students and professors.

We recommend against extensive use of high immediacy/synchronous approaches. Ideally, students will have choices in when to attend to course obligations so that they can also balance their current life obligations. The figure

below shows some examples of how various course activities rank in terms of bandwidth and immediacy. PDF version.

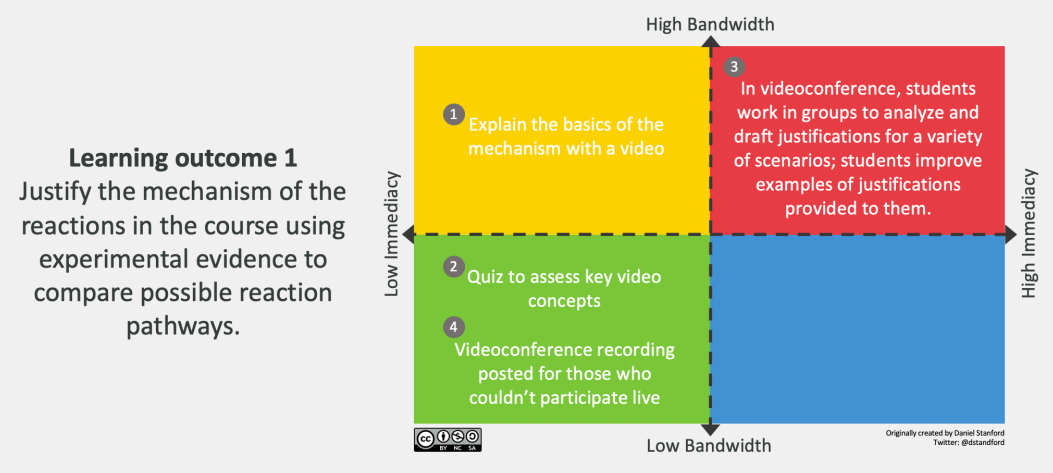


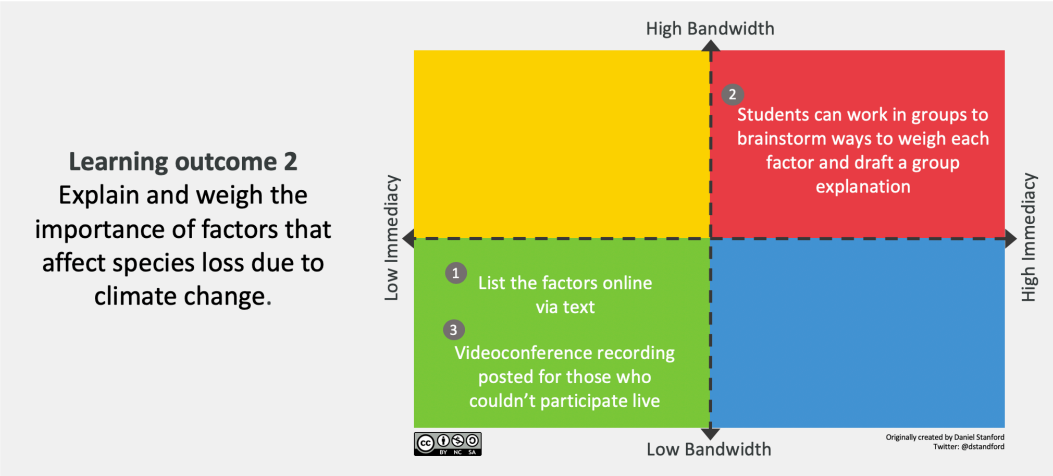
Examples of high/low bandwidth and immediacy teaching options.

We created a series of examples that suggest ways to find reasonable tradeoffs between immediacy and bandwidth. Our intent here is to take some of the pressure off both students, **TAs**, and professors.

Examples

Each example that follows is a learning outcome followed by teaching decisions that reflect a specific compromise between high and low immediacy, and between high and low bandwidth requirements. PDF version.





Examples of activities designed to help students achieve the learning outcomes indicates, arranged according to bandwidth and immediacy requirements.

Determine how much time students will spend

Emphasize the time students spend on task over "contact hours". Design opportunities to engage deeply with learning in authentic contexts, rather than superficial approaches. Here is a useful calculator for estimating course time. The University of Windsor's Office of Open Learning recommends that students should spend 6 – 9 hours per week on learning activities in a course, including lectures, watching videos, readings, working on assignments, independent research etc.

Curating content

Curate before creating

First, gather all the material you already have available to re-use if possible. Curating will save you time! There are many sources of content:

1. Seek alternatives to copyrighted materials, including **public domain**, **open access**, **creative commons**, links, and **insubstantial use**.

A main source of resources are **Open Education Resources** (OERs), which are "teaching, learning, and research resources in any medium—digital or otherwise—that reside in the **public domain** or have been released under an **open license** that permits **no-cost access, use, adaptation, and redistribution** by others with no low limited restrictions." –UNESCO Some sources of OERs include:

- Ask librarians. uOttawa maintains a list of OER repositories
- eCampusOntario has an Open Library plus other teaching/learning resources
- Discipline-specific repositories exist, including for laboratories (e.g., ChemEdCanada.com)
- Video sources such as Khan Academy
- Image sources, such as Pixabay, Flickr, and Flaticon

2. Copyrighted materials (video, text) may be desired sources. For these items, you could:

- Send students directly to the source by sharing a link
- Request or require that students purchase the material (e.g., course textbook)
- Explore exceptions to copyright through uOttawa's Copyright Office

Writing text or preparing slides

When you are writing stand-alone text in online courses, full sentences are preferable to bullet points. Bullets on slides can be explained in person or in video but the meaning can often be unclear when seen out of context in stand-alone text. That said, be a brief as possible an avoid being redundant–repeating key points is important face-to-face as students may have missed the message or not realized

the importance. Online, you can emphasize the key messages and they can always return.

Did you know? The library can help with scanning text and other course materials to help ensure that the resources are accessible and follow copyright regulations.

Creating content, particularly videos

General guidelines

As needed, create new material. There are great explanations for creating instructional videos (e.g., professors, Columbia, Edutopia, TechSmith). We also provide a series of examples in the section: Specific examples of video set-ups. In short, videos should ideally:

- Keep it brief (2 – 15 minutes, like TED talks). Ideally, videos will be centred on a single topic or sub-topic. Long video recordings (i.e., > 20 min) are difficult for many reasons, as they make it hard to: keep students engaged for that amount of time (in fact, viewing drops rapidly after ~6 min), find information later, update or clarify content, or point students to specific sections of relevance. If there's a mistake in an 80 minute video, it's a lot harder to fix than a mistake in a 3-minute video.
- Identify a key message, such as by learning outcome, topic, or sub-topic in the course.
- Have accompanying visuals that can be annotated, such as slides. Share these with students so that they can annotate, too (e.g., post the slides on Brightspace, use an editable format, like Powerpoint). More on creating videos and **cognitive load** from Vanderbilt University.
- Be engaging: use a conversational tone; making mistakes is okay!
- Let students see you in video recordings to increase engagement and impact.
- Design for accessibility as part of the process. Doing so supports learners who need it right from the start, saves you time in the long run, and benefits all learners in the class.
    - E.g.,: a decent transcript can be made using transcription software such as Otter.ai (free 600 minutes/month); a quick revision and your transcript is done!
- Follow copyright rules

- Lab videos:
  - Record the lab portion without the sound (labs are loud so original sound quality is usually poor)
  - Record the audio separately, in a quiet space
  - Wear proper personal protective equipment

Tools

Here are some set-ups you can use. However, there are many options out there, so you can always look into others. There are additional explanations and a few specific example videos of how each choice would turn out in the section: Specific examples of video set-ups.

- Hardware – these are optional, aside from a computer to do the recording
  - Webcam: your laptop/desktop's built-in camera or a separate webcam, such as Logitech's 960 or C615
  - Tablet for digital handwriting: an iPad with pen or the Wacom pen tablet
  - Microphone: the Snowball, Blue Yeti, MXL Tempo, or MXL conferencing; the built-in microphone on most computers is noticeably lower quality
  - Headset: the Logitech wireless and wired versions are excellent value; a head-set is helpful if you plan to do lots of editing or doing more advanced recording
- Software
  - uOttawa recommends and offers technical support on: Powerpoint slides recorded using Echo 360 (in a classroom or using personal capture) or using voice-over Powerpoint from a laptop/desktop. Other options include:
  - YouTube Studio (simple editing), iMovie (Mac only), TinyTake (good for short videos), Adobe Premiere Pro or Camtasia (record screen, video, and audio; simple to advanced editing, but more expensive), or even Zoom (recording only). As usual, there are many other options if these don't work for you.
  - Notability captures annotations on blank pages or a slide – can be run on a tablet or desktop
  - Powerpoint or Keynote, to make and share slides

To make the recording:

- Key principles, from Edutopia (LINK) and TechSmith (LINK)
- **Cognitive load theory** guidelines, from Vanderbilt University. LINK
- Technology involved, from Shopify. LINK
- The Appendix has examples and video walk-throughs

To share the recording with students

- Upload the video to YouTube Studio (publicly or unlisted) then link to the YouTube video in Brightspace. Going through the YouTube step (i) allows for automatic captions (although expect greater error rates in technical material), (ii) means students can make themselves a playlist to watch offline, and (iii) Youtube automatically optimizes videos for low bandwidth connections.
- Alternatively, post the video directly in Brightspace.

Accessibility

Course content needs to follow the Accessibility for Ontarians with Disabilities Act (**AODA**). For example, export Word and PPT documents to PDF in the format "Best for electronic printing and accessibility)", tag images with descriptions or label as "decorative image", and add captions to videos (YouTube will caption videos roughly).

This article provides simple guidelines for designing an inclusive user experience.

Intellectual property

You may choose to follow a traditional copyright route for licensing the materials you create; however, there are other options that make the content more accessible while still retaining some rights.

Creative Commons (CC) licensing is a format that lets you decide how much flexibility to give for use of your work. For example, you may decide that your work may not be used for commercial use and that any adaptations of your work need to be shared forward in the same way. You may also decide to waive all your rights by using a CC0 or Copyleft license. An interactive tool to choose a license can be found here.

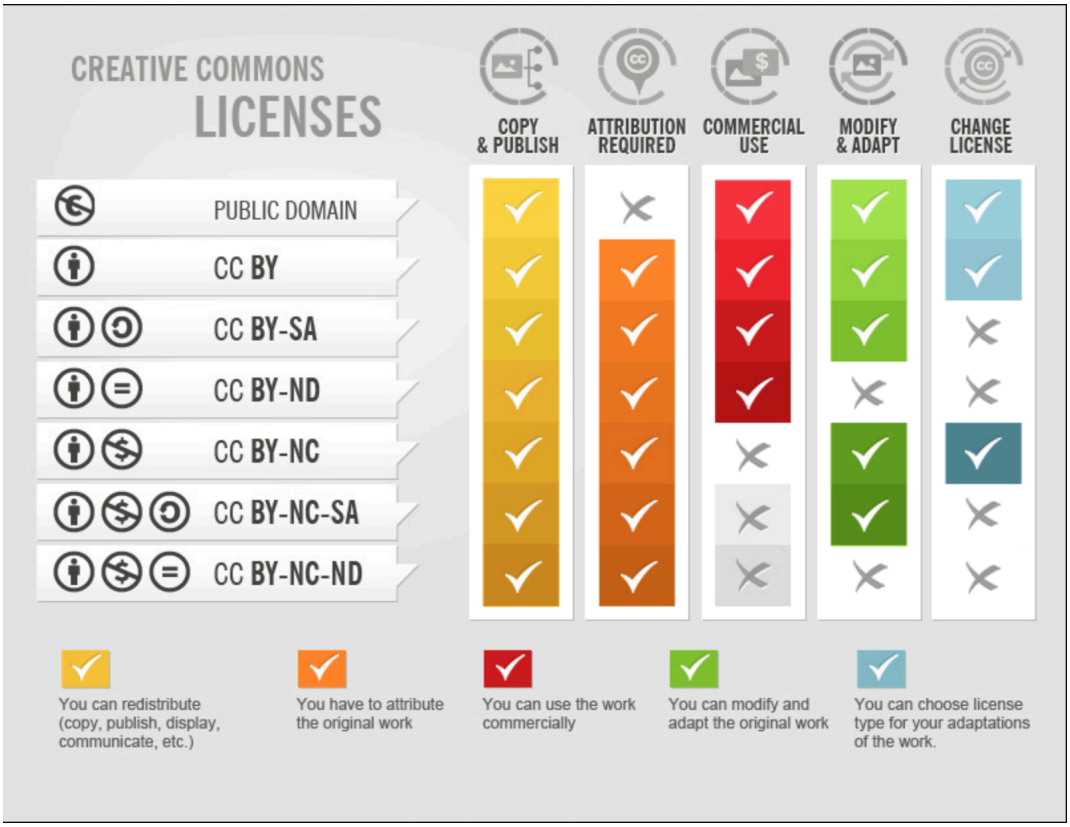


Figure 4. Creative Commons Licenses. JoKalliauer, 2015. https://commons.wikimedia.org/wiki/File:Creative_Commons_Licenses.png. Used under a Creative Commons Attribution-Share Alike 3.0 Unported license.

To go deeper

The following book delves deeply into every facet of teaching online: Major, C. H. *Teaching Online: A Guide to Theory, Research, and Practice*; Johns Hopkins University Press, 2015.

As another option, eCampusOntario's "Ontario Extend is a **professional learning program** grounded in the belief that the impact of learning should be the primary motivator for creating technology-enabled and online learning experiences. It aims to empower educators to explore a range of emerging technologies and pedagogical practices for effective online and technology-enabled teaching and learning."

Mayer's Handbook of Multimedia Learning contains many principles for designing effective learning through multimedia.

The following article describes evidence-based best practices for creating videos, aligned with Mayer's Handbook. See Table 2 in particular. Students' satisfaction was higher with some video types than others, but learning outcomes did not differ; all videos were short (3 – 5 min). Choe, R. C.; Scuric, Z.; Eshkol, E.; Cruser, S.; Arndt, A.; Cox, R.; Toma, S. P.; Shapiro, C.; Levis-Fitzgerald, M.; Barnes, G.; et al. Student Satisfaction

and Learning Outcomes in Asynchronous Online Lecture Videos. *CBE—Life Sci. Educ.* **2019**, *18* (4), ar55.

Content can become interactive by adding questions to videos using **H5P** through eCampusOntario's H5P Studio or other methods, so that students can self-assess as they watch.

To learn more deeply about designing for accessibility, see:

- Accessible Campus, by the Council of Ontario Universities
- Universal Design for Learning
- Accessibility for Ontarians with Disabilities Act (AODA)

Minimizing bandwidth

If you wish to optimize further, this article by Kyle Mackie has suggestions for reducing bandwidth requirements for course materials, including how to optimize video streaming and reduce file sizes.

Synchronous activities

The chapter on Communicating with students offers more explanations about how to facilitate synchronous sessions.

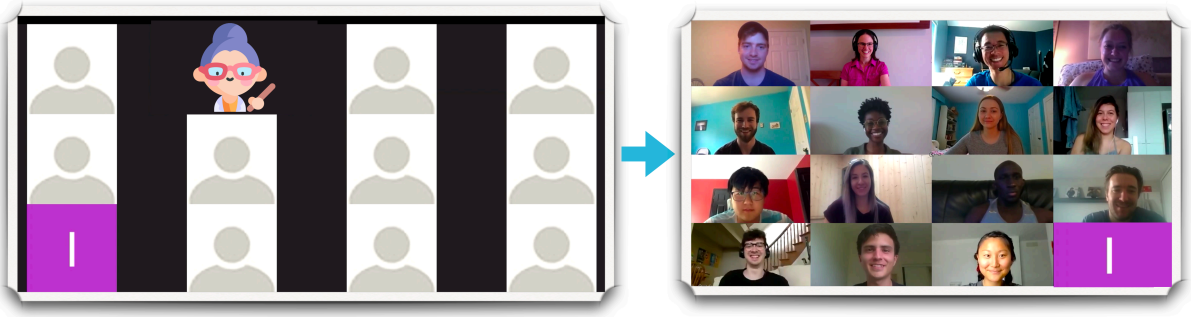
Up next

In the next chapter, we address options for synchronous classes (videoconferences).

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

6.

CLASSES (SYNCHRONOUS SESSIONS)



In this chapter

Facilitating classes (synchronous sessions/ videoconferences)

In this chapter, we describe how to plan, facilitate, and wrap-up synchronous online sessions (i.e., classes). These classes bring significant equity issues with them and it's not essential to have a synchronous component in order to have an effective and engaging online course. If you do hold synchronous classes, we **strongly recommend recording the sessions** and **providing alternate means of meaningful engagement** in the course. Following the recording, you can upload to a streaming service (e.g., YouTube Studio), which creates rough captions, then posting to Brightspace.

As with other areas of a course, there are many options to choose from! Start simple, keeping in mind your students' learning needs and abilities, course goals (e.g., learning, community-building), and your own abilities and limits.

Planning classes

Planning a synchronous session is a bit like a mini-version of planning the full course (Figure 1). Ideally, **start by identifying the essential learning outcomes** for that session, and use what learners already know to identify a starting point for the session. From there, decide on the activities that supporting learning, community-building, or your students' other goals for the session.

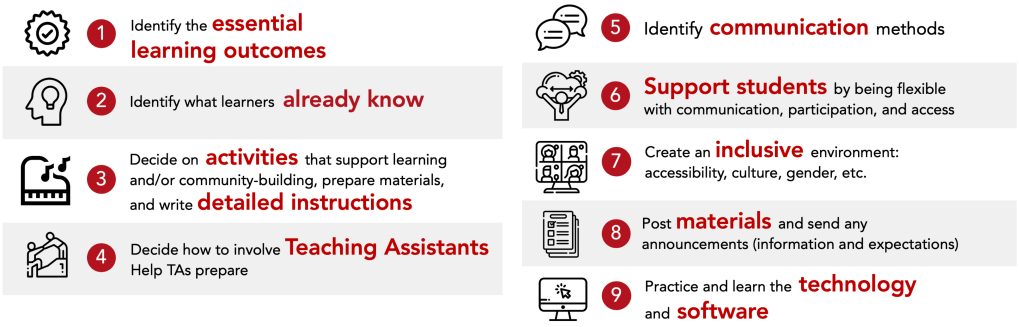


Figure 1. Key steps in planning a synchronous class session.

If teaching assistants are working with you in the course, identify ways in which you might want them to support or co-lead the synchronous session (could include monitoring the chat by answering questions and identifying issues to raise with the full group). To help students identify members of the instructional team, the team could also use a common background or identify themselves by adding their role to their videoconference name.

Identify how communication will work during the synchronous session. For example, students could ask questions aloud, through the chat, or through an anonymous poll question. Having a few options makes it easier for students to participate using the way that makes them the most comfortable.

Creating an inclusive environment is an important aspect of the full course! There are some suggestions in the Chapter on equity in an online course and below.

Once you have the class session planned, send students materials ahead of time and communicate any expectations of things they should do ahead of time or bring to class (e.g., install and test software, pre-load any websites). You could also send a video that explains the key features of the tool(s) you intend to use, such as the videoconference software.

Almost ready for the class! Before it starts, test out the software in real action mode. Practice switching between views and imagine scenarios that might arise. You could even ask a few generous colleagues to role play as students and try things out. 🙂

Minutes before the session starts

In the 15 – 30 minutes before the session (Figure 2),

1. Set up and log in to websites (as needed). Load up your slides. Consider playing some music, which lets people know their sound is working and makes can help them feel like it's okay to talk or make noise, too.

2. Turn off any of your own notifications, set up and check that your webcam and microphone are working.
3. Start the session about 10 minutes early, to resolve any tech issues (yours or students') and give a chance for students to ask questions informally.

The first few minutes of class

In the first few minutes of class, you can introduce yourself, welcome the group, and let students know that the class will be recorded (Figure 3). Next, you can introduce the goals and/or intended learning outcomes of the class, and ask students to introduce each other.

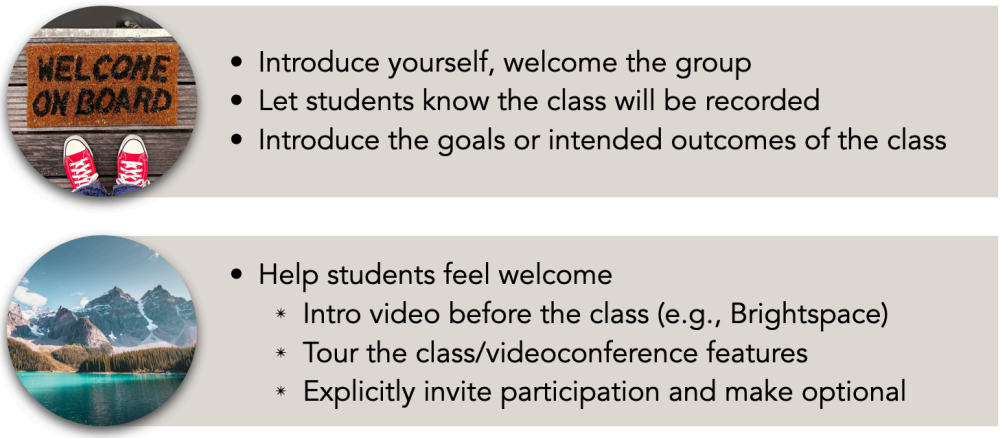


Figure 3. Options for the first few minutes of class.

You may wish to start with a land acknowledgement (Figure 4). NativeLand.ca is an interactive map that can be used to identify Indigenous territories.

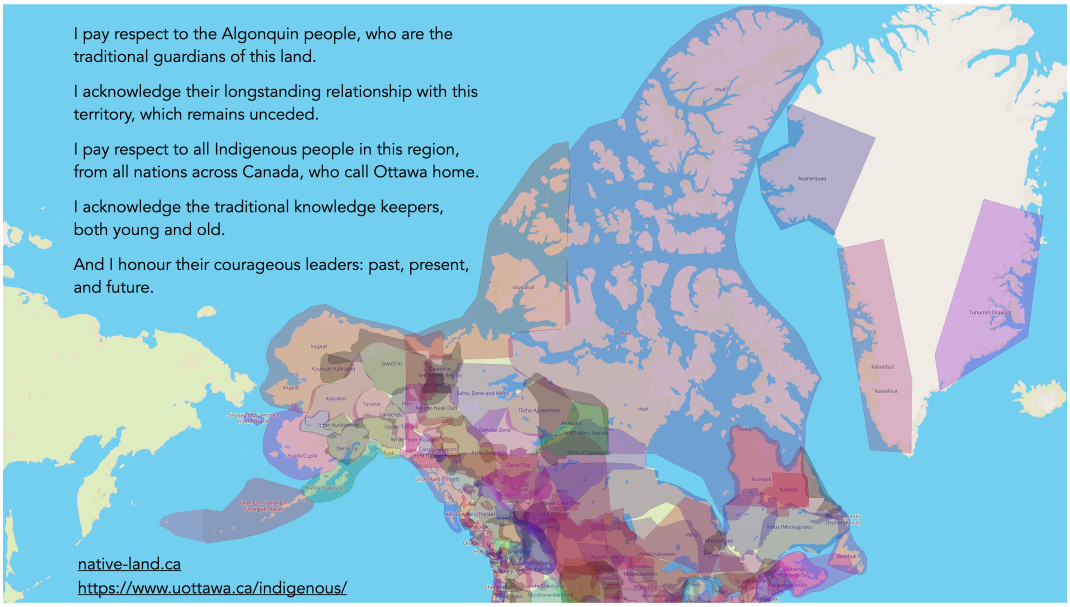


Figure 4. Native Land interactive map.

You may also wish to explicitly tell students that they are welcome in the course (Figure 5).

Figure 5. You are welcome here, a periodic table that demonstrates and invites diversity in science, by Anne McNeil and John Megahan.

Next, you can **help students feel welcome** (back to that inclusive environment) by giving a tour of the class/videoconference features and explicitly inviting participation (making it optional). Introductions between students work well with everyone together for small classes (<15), and in breakout rooms for larger classes.

Building community and ensuring a good experience in an online environment includes a number of concepts, including building **online presence** both synchronously and asynchronously.

In the first few videoconference (class) sessions, share **expectations for online communication (netiquette)** (Figure 6). You could also co-create these with students. For example, you could use or adapt the guide below; the file can be found in "Quick start overview and resource documents". PDF here.

Online conversations

Suggestions for participants ☺

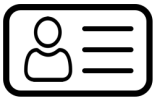
1. **Join early**. You can use the time to test the tech, chat with people, *etc*. If you need tech support, before the session is the easiest time to work things out.

2. Offer **extra warmth** with comments. Tone can be more difficult to read online so making an extra effort helps to communicate effectively.

3. **Turn ON your video** (optional but encouraged) to help us remember that we are real people in the room.

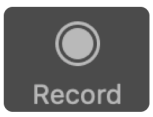
4. **Stay on mute**, except when speaking, especially for bigger groups. Feedback is a challenge when there's background noise.

5. **Raise your hand** when you want to say something or ask a question, and wait until others have finished their thought, especially in larger groups. That way, we can ensure that everyone is heard.



6. **Say your name** when you speak, which is especially helpful in bigger groups and for people on the phone.

7. You can **use the chat function** to ask questions. Participants can answer each other. Remember that the session may be recorded.



8. The sessions will be **recorded** so that people can participate asynchronously; recordings will be posted in Brightspace. Do not share these recordings. Please let me know if you want to participate with video on but want your video removed from the recording.

Figure 6. Online conversation skills, PDF version.

Major goals in an online course are often to build community and trust, engage students in the course, and help them take greater ownership of their learning process. When students students and the instructor/TA trust each other, the whole environment becomes more positive and respectful. To that end, we have a few recommendations:

- Students are generally excellent at online etiquette, so they can be trusted to stay on mute if necessary when others are speaking or in large groups and to use the chat function responsibly. We don't recommend closing the chat as doing so shuts off a main way that students can communicate with each other, ask questions, and build community.
- Encourage students to use their video but make this optional. While sharing our video lets us remember that we are working with real people online, students (or TAs and instructors!) may not want their home environment shared, for a number of reasons.
- Encourage oral participation (i.e., unmute to speak),
- Encourage students to upload a profile photo of themselves on Brightspace, say something about themselves in the chat, etc.
- This course can be an opportunity for professional growth for students. While you may not be explicitly assessing their professional skills, you can ask them to self-assess.

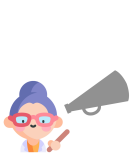
You may also want to have an **arrival activity** for students to do as they join the class (Figure 7). These activities could include answering questions with a poll, adding information to their videoconference name, checking in, summarizing the last class, etc.

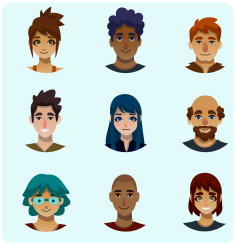
Figure 7. Examples of activities that can be used as students arrive in class.

Before introducing any activity, tell students the purpose of the activity and always make participation optional. Some students may not initially feel comfortable participating in interpersonal activities in a course setting, although they may join later.

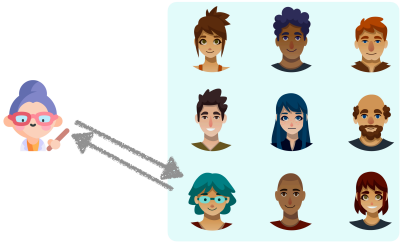
The main part of class

Again, there are many options here! Consider the types of engagement and learning you are seeking. Each one has trade-offs and can be appropriate depending on the instructional goals, learning goals, and context. Many courses use a combination of these methods.





This time can be used to explain ideas, model how to solve problems, provide context, etc., analogous to short lectures segments. If you are mainly the one speaking, students may feel more engaged by being in the room in real time, but the same information could also be transmitted using a video.



You could give opportunities for questions aloud, through a chat, or a poll. Q&A allows a few students to participate and may help clarify areas where many students have questions, but most students will be passive during this time. You could also encourage students to answer each others' questions.

Using classroom response systems (CRS) allows most or all students to engage in the class and questions can usually be left open for students to answer after the class, asynchronously (e.g., Menti, Google Forum, Poll Everywhere). Most CRSs have many question types. For example, Menti has multiple choice/select, open-ended, and slider questions (Figure 8). CRSs can be used to gauge students' comprehension in real time and make decisions about whether to move forward or spend more time on a concept, for students' to self-assess, and to learn more about students (e.g., preferences). A drawback is that students are not interacting with each other.

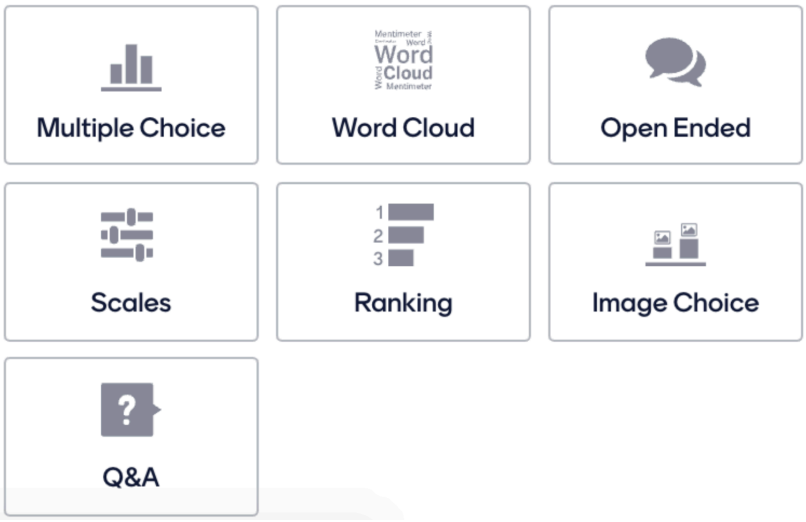


Figure 8. Question choices in Menti, one type of classroom response system (polling).

Creating opportunities for students to talk with each other gives a number of benefits: **greater learning** (see How People Learn II), **community-building**, **confidence-building**, and hearing a **diversity of perspectives** (which may be different academic viewpoints or perspectives from coming from different backgrounds, countries, etc.). Breakout rooms allow students to have a more private (unrecorded) space to have conversations and work well for group sizes of 2 and up. There is additional management to do, however.

Breakout rooms: more details

What?

Breakout rooms are videoconference rooms created off the main videoconference. Different software does this in slightly different ways (e.g., through "channels" in MS Teams, done directly in Zoom—see below). In the breakout rooms, students can discuss a case, work on problems/activities, practice presentations,

etc. Usually, all or some of the groups would share a summary of their discussion back with the main group (e.g., orally, in writing, through a poll).

How to run a breakout room

There are many ways to run a breakout room, with a few options described below. You could also watch an example and follow-up discussion.

- Explain the activity before students go to the rooms, with written instructions (Figure 9)

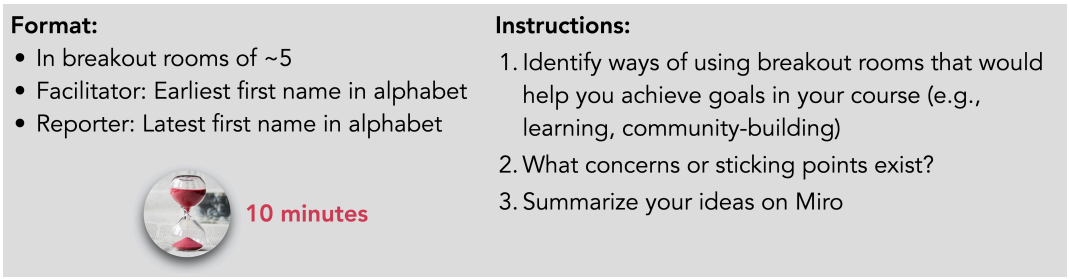


Figure 9. An example of written instructions that can be used before students go into a breakout room, with roles and time allocated.

- Ask students to copy the instructions (*e.g.*, screenshot)
- Groups can be made randomly, purposefully (can be done ahead of time), or as students chose (e.g., by theme/topic)
- Open the breakout rooms (example below for zoom, Figure 10)

1. Initiate the breakout rooms
2. Decide whether rooms will be made automatically, manually, or by participants' choice, and how many rooms are needed (zoom automatically adjusts the number of participants per room)
3. Decide on the options, e.g., you can allow students to chose whether they participate or not by leaving the first option unchecked—"Move all participants into breakout rooms automatically"— and the second option checked "Allow participants to return to the main session at any time"
4. Open all rooms when ready

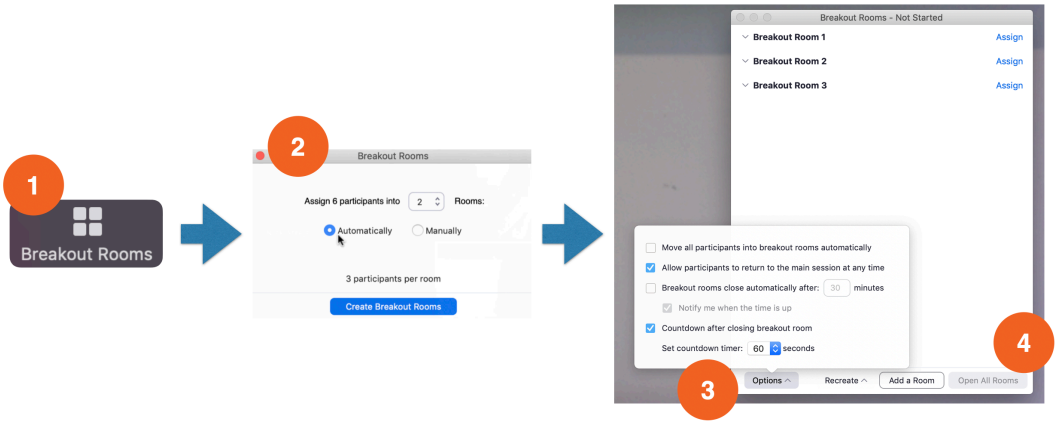


Figure 10. Steps for opening a breakout room in Zoom. Each software has a slightly different method.

- During the breakout room, you can (Figure 11):

1. Broadcast a message to everyone (e.g., reminders, clarifications, time left, request to return to the main room)
2. Move people between rooms or add people to room (e.g., if someone joins the class late or whose connection drops and they need to rejoin)
3. Join and travel between rooms to check in or respond to questions if students call you in (they can request that you join them). As you travel between groups, you might ask questions to help the conversation go deeper, remind the group of the goal, offer alternatives to consider, just listen, *etc.*
4. Close all rooms—you may want to leave them open and simply broadcast a message for students to return, which would allow students to continue any great conversations they are having rather than being pulled back (both ways have advantages)

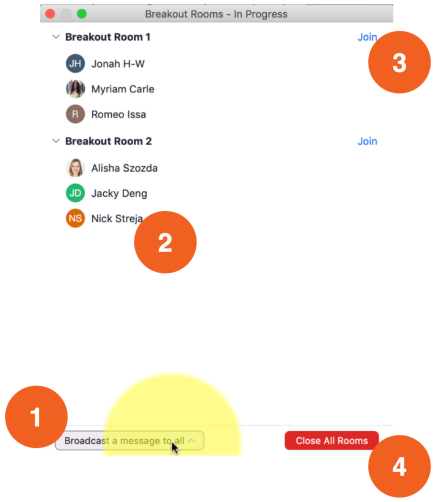


Figure 11. Options available in Zoom while a breakout room is in progress. Each software is slightly different.

- After the breakout room session, you may ask some or all groups to share highlights or important take-home messages. Students can contribute to a collaborative document or put a summary in a collaborative space. They could also share their summary with another group for that group to then add to. Again, many options!

What group size is appropriate?

Group size depends on the context! Two person groups are great for meeting each other and engaging in deep conversations. Groups of 3 – 5 work well for group conversations or role plays and are small enough for everyone to have a chance to be heard. Larger groups can work if people are giving/practicing presentations or pitches and other group members are giving feedback.

Consider also how many people will join the group to which they are assigned, which will take some experimentation as every group is a bit different. In some groups, almost everyone participates (even in large groups); other times, only half of participants engage.

Handwriting online

Being able to handwrite and share online is important for many disciplines (e.g., math, physics, organic chemistry, art).

1. Consider having 2–3 options for students to balance the technology students may/may not have available (Figure 12).

- The lowest tech option involves handwriting on paper, photographing, then uploading the image
- Some students will have tablets (e.g., iPad, Microsoft Surface)
- Use the videoconference's whiteboard

2. Identify a method for students to share their drawings, such as sharing their screen, dropping their file into the videoconference chat, pasting into a collaborative document (e.g., Google Docs), uploading to Brightspace (e.g., as an assignment, in a forum), or uploading to a submission folder (e.g., dropbox)
3. Alternatively, use a software designed for collaboration, such as Miro, Mural, or Explain Everything.

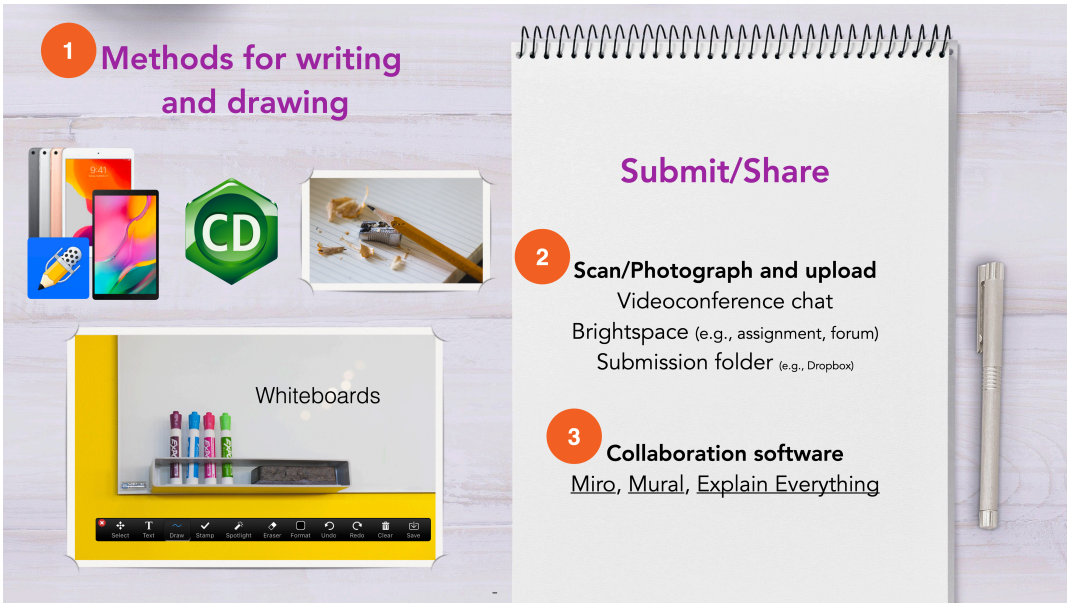


Figure 12. Options for handwriting in the online environment.

Wrap-up and next steps

Once the class is over, **post the recording** as soon as possible (especially important during a pandemic when students may not be able to participate synchronously). Using a streaming service allows at least for rough captioning, optimizing the streaming rates, and gives choices in playback speeds (e.g., YouTube). The recording can then be posted in Brightspace.

You can also connect the class session with other parts of the course by

identifying options for students to engage in the class asynchronously or announcing the next steps.

Disruptions during a videoconference

Things can go wrong online just like they can in the physical classroom. By **staying calm** and **being prepared**, you can prevent and address these issues. Often these issues are minor technical problems that can readily be resolved.

First and foremost: you always have the option of stopping or leaving the session. If you are not sure what to do about an issue, stop the session and follow up with students as soon as possible.

Building a respectful community is one of the most important ways to prevent issues from arising (described above). Now let's look at how to address issues by (1) knowing the technology, (2) taking appropriate action.

1. Know the technology

Practice using the videoconference software before the first DGD/tutorial. In particular, learn how to control the following options: mute/unmute microphones, turn on/off videos, turn on/off participants' screensharing and screen annotation abilities, remove participant, and chat.

For example in Zoom, you can (Figure 11):

- Create the connection link using a password, currently a default setting in Zoom that should be used
- For institutions or accounts with Single Sign-On (SSO), you can require sign-in only from authenticated accounts (e.g., at uOttawa)
- Enable the "waiting room" once most students have joined
- Disable screen sharing, or enable it only for specific purposes
- Chat can be disabled if needed, although this limits community-building and students' ability to ask questions (of you or each other)
- Lock the meeting, but this will make it challenging for students to join/re-join if they have connection issues (or scheduling issues)
- Remove participants by clicking on participants then selecting the one(s) to be removed (should be done only if essential)
- Note: Zoom has two versions that enable single sign-on authentication (e.g., from identified uOttawa users only) Business and Enterprise.

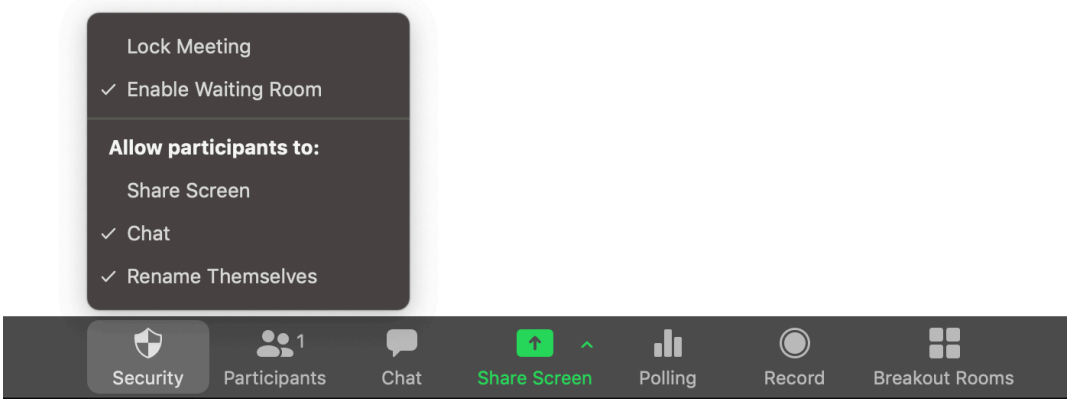


Figure 11. Zoom has a number of security and interactivity features that are easily accessibly in the bottom screen of an active videoconference, visible for the "host".

2. Taking appropriate action

Remember: you always have the option of stopping or leaving the session. If you are not sure what to do about an issue, stop the session and follow up with students as soon as possible.

Behaviour issues

- **Serious issues** like uninvited participants making rude, racist, sexist, etc. comments: remove the "participant" and either lock the videoconference or enable the waiting room so that you control any other entrances
- **Participants getting off-topic**, spamming the chat with emoticons, etc.:
  - Ask participants to keep the messages focussed on the conversation at hand
- **Student being disruptive**, lacking professionalism:
  - Gently ask them to return to the topic at hand or to stop the action (scribbling on whiteboard, talking over someone else); assume the best: that they don't realize the effects of their behaviour
  - Send an individual chat message or email
  - If the behaviour is really inappropriate (e.g., racist comment): tell the person to stop immediately and publicly; this not only stops the behaviour but shows all participants that you will protect them and the learning space
  - Remind the student that everyone is there to learn, has paid for the course, committed time and energy, and given up other activities to be here
  - If needed, mute their microphone (sometimes people leave it on by

accident and start talking to their cat)
    - You could also send out a general reminder to everyone about the importance of mutual respect in the course

Connection and technology issues

- Record synchronous sessions for equity reasons
- Test the equipment beforehand
- If you tend to have **bandwidth** issues
    - Send the slides/content to the students ahead of time
    - Put screenshots or other documents into the chat
    - Turn your video off if needed
    - Give your sessions from a different location, if possible
- If your audio is bad
    - Borrow a microphone from the university [details to be added]
- Be mindful that students may have the same issues
    - Offer options: video on/off
    - Watch a video at a different time
    - Use the chat instead of answering orally
- If a technology is not working as intended, use a different method or move on. Maybe the polling software is not working so you create a question on the whiteboard instead, or you ask students to discuss in breakout rooms.

What to do when things go wrong (like a zoombombing)

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=821#oembed-1

Addressing other issues

- Other issues may arise, like students not finding a button or needing time to load up a new activity/website.

    - Anticipate that new activities and software will take a little longer the first time.
- Students may be confused at the instructions:
    - Write down the instructions, keep them to 3 steps max, and include the amount of time allocated; an example is shown below (Figure 12). If the activity needs more than that, give the first few instructions so they can get started, then build in the rest. If you need to give more than 3 instructions at a time, consider simplifying the activity.

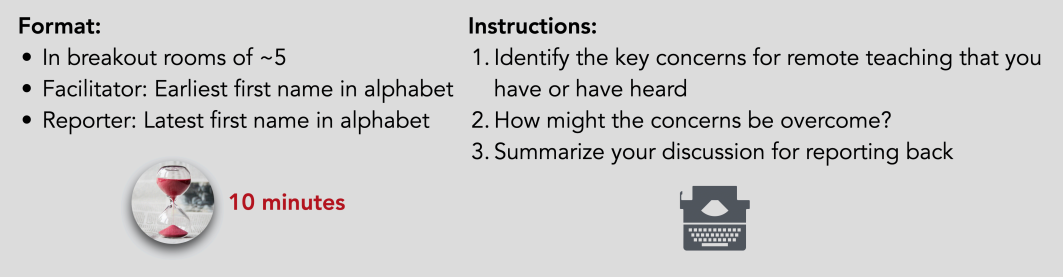


Figure 12. Written instructions are especially helpful online.

Issues with a difficult student

The following recommendations are adapted those from Stanford University's Teaching Commons.

- "First, maintain a safe environment for your students, which means preventing the debate from turning into a prolonged attack on either individual students or groups with whom students may identify. It also means keeping your cool and staying respectful if a student challenges you; this preserves students' trust in you." – Classroom Challenges, Stanford
- Decide whether a conversation is appropriate in the moment, whether to arrange another time to discuss, or whether to refer the student to the course supervisor.

During the conversation:

- Identify the source of the concern. To better understand the issue, listen carefully and ask questions. Take a deep breath and stay calm.
- Use evidence when disagreeing with a student and ask students to provide evidence for their positions. Don't use your position as a reason to be right (e.g., I know this because I am a TA)

- Avoid “teasing or sarcastic humour, since these are all too often easily misinterpreted.” – Classroom Challenges, Stanford
- You may want to brainstorm or outline the options

To go deeper

Recommendations for holding synchronous sessions

This collection of articles summarizes key aspects of facilitating online learning sessions.

Video series of recommendations

The first series of four videos from Contact North captures some main recommendations for working with students through videoconference methods.

- Prepare before class
- Prepare your students
- Encourage participation
- Engage your student

Up Next

In the next chapter, we address options for assessments, including quizzes, assignments, and exams. We also address academic integrity.

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

7.

ASSESSMENT AND ACADEMIC INTEGRITY

By the end of this chapter, you'll be able to identify ways for assessment to work in order for learners to build knowledge, track their progress (**formative assessment**), and to assign grades (**summative assessment**). You'll also be able to identify ways to promote academic integrity and deter misconduct.

In this chapter

Principles for assessment

UBC describes principles for assessment in any setting:

- ***"Valid:*** Measures what it is intended to measure
  - The assessment should align with the intended learning outcomes (see Constructive Alignment for more information)
  - The assessment level should match the level of the learning outcome (see Bloom's Taxonomy). Consider carefully whether a multiple choice question can assess a high-level learning competency such as synthesis or

judgement, and whether an essay or similar written question is needed to evaluate a low-level competency such as recall or comprehension

- ***Reliable:*** The results are consistent and dependable
  - Do different graders evaluate the student work the same way?
  - Are students likely to perform similarly if they retook the assessment in a few days? Does the assessment depend on students happening to study minor details in the course or broad course themes?
- ***Practical:*** the cost, effort, and time frame are reasonable
  - The assessment needs to be workable for you, for TAs, and for students
- ***Authentic:*** it aligns with the target competency
  - e.g. can we assess teamwork using multiple choice quiz?"

The University of Calgary created a thoughtful explanation of key principles to consider for online assessments, including their reasons, how to enact the principle, and further reading. The main points are:

- Focus on learning (especially the most important aims of the course)
- Balance structure with flexibility (consider potential/known challenges students are facing during the pandemic)
- Provide clear instructions and quality, prompt feedback
- When possible, replace timed exams with other types of assessments
- Emphasize academic integrity (e.g., through conversations early and often, and an academic integrity statement in the syllabus); clarify expectations.

Asynchronous assessment options

Here are some options for structuring assessments over the course of the semester. We suggest relying less on marks from midterm and final exams, and providing more marks from other sources, such as:

- Brightspace quizzes; posted weekly on, say, Thursdays and due the following Wednesday
- Complete a problem set (not evaluated, just for learning purposes); questions & answers posted as PDFs
- Summarize weekly readings; submit as a Brightspace assignment

- Collaborative assignments; submit as a Brightspace assignment
- Discussion forums to summarize, analyze, engage, etc. Here is an excellent (and short!) summary by Gavan Watson, with references.

Synchronous assessment options

- Answer a series of questions in class – the instructor can review and expand on the answers or move on if the concept is well-understood. For example Kahoot and Menti are **classroom response systems** that can be used to gauge students' understanding of material in near real time—they work as an online version of a clicker.
- Students can work in group to brainstorm, weigh evidence, propose solutions, etc.
- Submit one or two sentences identifying the main point of a concept on Menti.
- Please note: this section will soon be expanded. 🙂

Exams

In short

Houston, we have a problem. A new situation requires new approaches, and one of the most challenging parts of moving to remote teaching is figuring out how to evaluate students' learning.

To make a long story short, if you wish to give a fairly traditional exam under these non-traditional circumstances, we recommend:

- a **collaborative, open-book** exam, or
- an **individual, open-book** exam, or
- if open-book exams cannot work, an exam using an online proctoring system

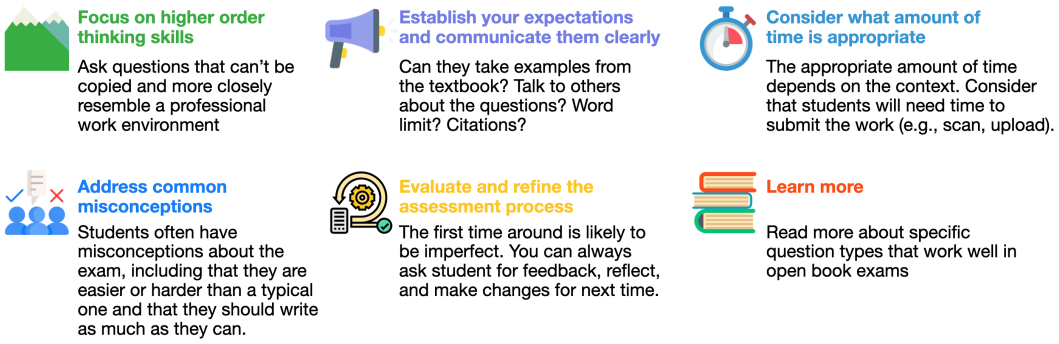
Whatever the exam style, administering the exam will require significant changes relative to typical, in-person exams. Most students live up to requirements around

academic integrity, although an open book exam is probably going to be collaborative whether you want it to be or not, at least for a few students. Honest students may themselves feel cheated if they know that others have not upheld academic integrity standards and that is also a consideration.

Honour codes can also be used to emphasize and teach students about academic integrity and ethics; students can sign a declaration at the start of their exam attesting that they agree to follow the exam's guidelines.

Practical details

To give a collaborative, open-book exam, set a small, maximum group size (e.g., 3). Students should not self-organize the groups. Communicate clearly with students about how answers are to be submitted (e.g., there is one submission per group, submit as a Brightspace "assignment", answers will be checked using plagiarism software). You can require students to certify that they have participated equally in the preparation of answers.



Tips for using open book exams, from MacEwan University. To learn more, consult the following resources for: question types and a discussion of advantages/ disadvantages. PDF version of the graphic

A more detailed explanation

One of the biggest hurdles to offering a strong, remote learning course is understanding that exams cannot be administered in the traditional way. The practical barriers to assessing students effectively and fairly (and remotely) are significant for most professors. One approach is to consider alternatives to

traditional exams; many options are explained in detail by the Taylor Institute for Teaching and Learning.

> "It is important to start with the assumption that most students are honest and they want to learn." – Dr. Sarah Elaine Eaton, PhD, Educational Leader in Residence, Academic Integrity, University of Calgary

Recognize that there are no perfect ways to give a traditional exam under remote learning conditions. It's harder still during a pandemic. One approach that has occurred to many is to give short, timed exams with the underlying premise that it is harder to cheat if time is very limited. We are skeptical that this is true. Moreover, administering that kind of exam in a remote learning environment is likely to create serious (and stressful) logistical challenges: all it takes is one legitimate technical hurdle and the whole, carefully timed process could fail.

The pandemic makes problems more challenging. We cannot have thousands of students in gyms writing exams for multiple courses in the morning, followed by a second cohort in the afternoon, and a third in the evening, and expect to maintain physical distancing requirements. Moreover, even if the university can enable such in-person exams for some courses, a change in the pandemic status (like the much-anticipated "second wave") could derail plans with little warning. What would you then do instead to evaluate students?

Remotely proctored exams can now be administered at uOttawa through Respondus Lockdown Browser or Respondus Monitor. These remotely-administered formats require software systems that may be: highly invasive, unreliable or susceptible to academic fraud, too expensive, technologically difficult for students, damaging to students' experience in our courses, or all of the above. If you are planning to use this software, we strongly recommend following the recommended training, having a back-up proctoring method prepared (for students who do not consent to using Respondus), clearly describing the requirements in the syllabus (see template) and understanding the issues that arise from such tools (described below).

It's a thorny problem.

A successfully administered midterm or final exam in a remote learning environment will:

1. Maintain academic integrity
2. Permit all students to participate equally, including from different time zones
3. Yield a reasonable measurement of student learning
4. Not impose unreasonable costs (monetary or otherwise) for students or the university

Academic integrity

Educators are understandably concerned about academic misconduct and minimizing academic misconduct involves more than putting in measures to stop it. Building a culture of academic integrity involves building trust through conversations and clear communication throughout a course, providing several opportunities for students to demonstrate what they have learned, making efforts to identify academic misconduct (e.g., plagiarized assignments, contract cheating), and institutional support that includes clear and robust policies, integrity campaigns with a positive focus, involving student leaders, and training programs for everyone in the university community.

> "Nothing is cheat-proof." – Martin Wielemaker, Contract cheating presentation at Simon Fraser University

Some of the essential aspects of academic integrity include:

- Having **institutional policies** that addresses teaching students about academic integrity and enforcing regulations
- **Involving student leaders** in conversations and policy-making
- Including explanations about academic integrity in **course syllabi** (available in the syllabus template in the Quick Start Chapter)
- **Class conversations** that inform, share expectations, and create an environment of academic integrity
- Requiring that students **read and sign an academic integrity statement** for the course overall and specific assessments
  - A template can be found in the Quick Start Chapter
- Including **detailed instruction on assessments** indicating what is and is not

allowed; don't assume students will interpret statements the same way you do. For example, saying that an exam is "open book" could mean that the students can consult:
    - Only the textbook
    - Any source, including the web
    - Classmates
    - Anyone, anywhere
- **Designing assessments that mitigate cheating**: authentic assessments (e.g., using real data on an assignment that can be used for another/real purpose), multi-stage assessments (individual written then oral), personal reflection, asking **questions that require higher order thinking**, which make cheating harder
- **Deterring academic misconduct**; please see options below.

Ways of deterring academic misconduct

1. **Promoting academic integrity**, as described above

    - Pros:
        - Builds a healthy classroom culture
        - Helps students who may not be aware of academic integrity/ misconduct
    - Cons: some people will always cheat (the same is true in academia with plagiarism)

2. **Spreading out the weighting** of assessments, rather than having a few major ones

    - Pros: Addresses major reasons why students engage in academic misconduct
    - Cons: Like all methods, not a perfect solution. Having too many assessments can result in overload of work for students (workload estimator).

3. Using **remote proctoring software**

    - Pros:

        - May deter but does not stop academic misconduct
        - May help students feel less pressure to help their friends cheat
        - Zoom proctoring has been used as a method to proctor exams without using a formal proctoring software, particularly with an external webcam
    - Cons:
        - Many students feel this as an invasion of privacy (having to share their home environment)
        - Many students find that this type of video proctoring software increases text anxiety, which has had negative impact on performance
        - Creates equity issues with students who cannot purchase a webcam, don't have wifi, or don't have the latest software needed
        - Students can still find ways to cheat (e.g., using bathroom breaks, a secondary device, sticky notes on the computer)
        - Limits in question types that can be asked online; often still need pen/paper
        - Risks breaking the trust and community that we are working hard to develop with students—our future honours students, graduate students, colleagues, and co-professionals
        - Students with disabilities (e.g., physical movements) may get flagged more often than the average student, and as a consequence may feel that their privacy is more violated
        - Students with darker skin are frequently flagged more often because of the software's difficulty seeing contrast.
        - When proctoring with zoom, students may be sending each other messages or using other software without having monitoring capabilities.

4. **Addressing cases** that are identified through institutional academic misconduct policies and processes

    - Teach teaching assistants what to do if they suspect cases of academic misconduct
    - Tell students how to report cases of academic misconduct (e.g., email to you, an anonymous form to fill out)

Options for exams that have been used to deter academic

misconduct

1. **Shorter time** allowed for exams

    - Pros: in principle, harder to get answers in time
    - Cons:
        - Research shows that this method has little effect on cheating
        - Emphasizes a mode of rapid thinking rather than analytical thinking (either mode can be appropriate, depending on the context and purpose of the assessment)
        - Students can still have others answer for them or search for answers
        - Students are most likely to cheat on assessments that have a shorter turnaround time or account for a heavily weighted portion of the course grade
        - Does not account for technical issues that can arise

2. **Multiple versions** of exams

    - Pros: harder to copy from someone else. Can make small differences that can help to identify cheating
    - Cons: difficult and time-consuming to make many equivalent versions

3. **Not allowing backtracking** (returning to a question once completed)

    - Pros:
        - Makes it harder for students to submit a question on a website that provides answers while they work on other questions
    - Cons:
        - Prevents students from working strategically on the exam as they often would (e.g., first answering questions they feel confident doing then leaving others to later)

4. **Variable question sequences**

    - Pros: Slightly hinders sharing answers
    - Cons: Has relatively little impact

5. Allowing students to **take the exam only once**

- Pros: Analogous to an in-person exam
- Cons:
  - Pressure to get the answers right on the first try is a factor in cheating;
  - They could do poorly if they have a bad day, are in a distracted home environment.

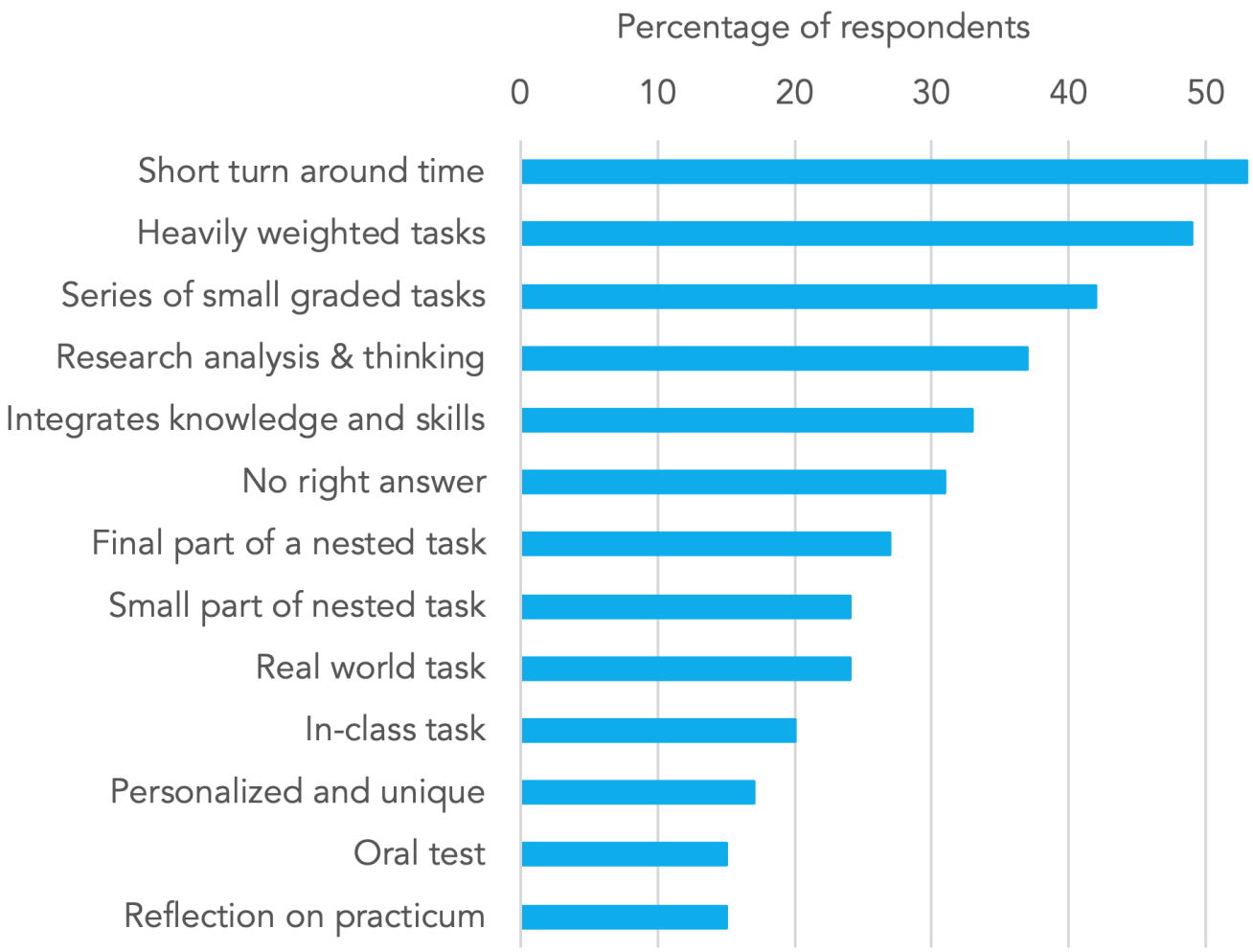
6. **Delay score availability**

   - Pros:
     - Indications of correct answers from the professor cannot be shared with others
   - Cons:
     - Removes an important learning mechanism

7. **Delay or do not give feedback**

   - Pros:
     - Correct answers from the professor cannot be shared with others
   - Cons:
     - Removes one of the most important learning mechanisms so substantially and negatively impacts learning and the majority of students in the course (honest students)
     - Can build a sense of distrust and harm the course environment

The following graph summarizes the perceptions of cheating on assessments, as reported by those who cheated.



Probability of cheating on assessments, as reported by those who cheated. *Chart adapted from Dr. Martin Wielemaker. The data are from Bretag, T., Harper,R., Burton, M., Ellis, C., Newton, P., Van Haeringen, K., Saddiqui, S., and Rozenberg, P. (2019). Contract Cheating and Assessment Design: Exploring the Relationship, Assessment & Evaluation in Higher Education, 44(5): 676-691.*

To go deeper

- University of Calgary's Taylor Institute for Teaching and Learning, Five principles for meaningful online assessment
- University of Calgary's Taylor Institute for Teaching and Learning, Academic Integrity and Online Learning
- University of British Columbia's Chapman Learning Commons and Faculty of Science (contain suggestions for professors, communications with students,

reporting mechanisms, etc.)

- Exams: Who are we leaving out? BCcampus
- A Guide for Academics – Open Book Exams
- 5 Tips for Using Take-Home Exams
- James Skidmore has shared extensive resources on assessment and academic integrity
- Create interactive videos using **H5P** through eCampusOntario's H5P Studio or other methods, so that students can self-assess as they watch
- Weleschuk, Dyjur, & Kelly. (2019). *Online assessment in higher education*. Taylor Institute for Teaching and Learning Guide Series
- Wisniewski, Zierer, & Hattie. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers of Psychology*. 10:3087. DOI: 10.3389/fpsyg.2019.03087
- Jopp & Cohen. (2020) Choose your own assessment – assessment choice for students in online higher education. *Teaching in Higher Education*, pages 1-18. DOI: 10.1080/13562517.2020.1742680
- Contract cheating and increasing academic integrity, Link
- Article: Fourteen Simple Strategies to Reduce Cheating on Online Examinations

Up next

The next chapter explains ways in which you can help students become proficient online learners, an environment that will be new for the majority.

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

8.

HELPING STUDENTS BECOME EFFECTIVE ONLINE LEARNERS

With this chapter, you'll be able to help empower students to become more proficient, effective, and autonomous as learners in a remote course.

In this chapter

Most students don't have experience learning in an online format. They may be *comfortable* but not necessarily *proficient* online. Students haven't chosen to work in this remote format and most would have chosen to be in a face-to-face class. You can ask them about their experience using a **Google Drive form** like this, which can be adapted to your own context. As such, they could use help knowing how to work effectively online. To support them, you could:

Provide a tip sheet

This tip sheet gives a quick, clean starting point; it was adapted from Carleton

University. The adaptable version is available in the chapter: "Quick start overview and resource documents". PDF version here.

Tip sheet for online learning

1. **Stay connected.** Regularly check your Brightspace course announcements and email.

2. **Reach out** to your instructor or a teaching assistant (TA) if you have any questions or need clarity on something. Identify yourself and include your course code in the subject line – most instructors teach more than one course so they need some context. But please be patient, these are extraordinary times and they may need more time to respond.

3. **Find a space to work** – quiet and yours. Minimize distractions and do not try to multitask (Studies have shown that multitasking does not work).

4. **Stay disciplined**. Set a schedule for course work – doing readings, viewing lectures, working on projects and assignments, etc. – and stick to it. Make a list of all the assignments and exams you have to finish and their deadlines and do not procrastinate.

5. **Let your instructor know if you need additional considerations.** If you have medical appointments, are unwell, or have family needs, slow/low internet capabilities, older incompatible devices, limited access to a device, or are experiencing mental health concerns that are impacting your ability to complete your work, tell your instructor so that they can offer ideas and solutions.

6. **Think ahead.** You may be asked to use a new online tool to engage with your course e.g. Teams, Adobe Connect, or Zoom. Take the time to set up the tool in advance of an online meeting (at least 15 minutes beforehand) and review the technical requirements and instructions before using the technology to avoid last-minute technical issues.

7. **Prepare for the unexpected**. Many of your professors are learning to use technologies and platforms that are new or unfamiliar to them. It's going to take some time to adjust. Expect some bumps along the way.

8. **Don't give up and be proactive** if you hit a technical issue. For example, if your reading link is broken, maybe you can search for the journal article yourself by using the library search.

9. **Take care of your mental health**. Schedule self-care into your daily schedule. Call a friend, go for a walk outside, take a bath, or watch an episode your favourite show. It's important to carve out some time for yourself, especially when you may be feeling a little more stressed or overwhelmed than normal.

10. **Be patient.** Your instructors have had to make their teaching available to you online on a very tight timeline. The best online learning takes time to develop—it usually takes a team of experts who work over many months or years. Your instructor is likely doing this alone. Please be patient and compassionate if things don't go right for you the first time.

Note: this tip sheet was adapted from Carleton University for the uOttawa community.

Provide a worksheet

While tips can be helpful, they need to be put into action to have an effect. This adaptable worksheet can be used to set goals and make a plan, and includes explanations and examples. The adaptable file can be found in "Quick start overview and resource documents". PDF version here.

Plan for online learning and work – Explanation

Fill in. Post in a prominent place. Revisit regularly ☺

How I take care of my **physical** health

- It's important to take care of our physical health
- Take breaks, go for a walk, find a new exercise or sport

How I take care of my **mental** health

- Schedule self-care into your daily schedule
- Stay connected and take time to celebrate all that has worked OK during this transition even though it wasn't perfect.
- Recommendations from therapist Amanda Carver and uOttawa

My **goals**

- This Growth & Goals module explains how to set SMART goals and become a more proficient learner. SMART = Specific, Measurable, Accountable (e.g., to a friend!), Realistic, and Time-defined
- Mini-deadlines can help you stay on track

My **schedule**

- Plan your schedule: LINK
- Try out a new time-management technique, such as the Pomodoro technique
- You can use any tech/tool for your schedule, not just this space.
- Stay disciplined. Falling behind makes it harder to reach your goals

My **work space**

- Find a work environment that works for you (as well as possible). Some prefer quiet, others prefer loud. It's also okay to move around.

How I **minimize distractions** and **set boundaries**

- My distractions: social media, I suddenly do many chores, read the news over and over again, food
- I love my parents… but they interrupt
- Read: "Deep work"
- Mindfulness (see Growth & Goals)

Where I **find resources**, and **people I can talk to**

- Resources could be for your health, course, or others.
- People could include friends, asking your teaching assistant or professor for help, etc.
- Help your instructor by engaging in class discussions (even a thumbs-up helps!)

My **tasks**

- Setting smaller tasks will help you reach your goals
- Regularly checking your email and course pages will help you stay on top of things
- Look ahead in your schedule: prepare for upcoming events
- Practice writing an exam

- You can chose the timeline to use for each section, e.g., daily, weekly.
- There are excellent, detailed resources online, such as: https://students.carleton.ca/2020/03/top-ten-tips-to-study-online/
- Icons from Freepik, Kiranshastry, Nikita Golubev, Kiranshastry, Catkuro, and Eucalyp from Flaticon
- Suggestions for this short guide are welcomed!

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Plan for online learning and work – Examples

Fill in. Post in a prominent place. Revisit regularly ☺

How I take care of my **physical** health

- Example: Run 2x per week
- Workout virtually (e.g., GNAC), free apps
- Get outside into nature (or at least some fresh air)
- Add new health habits (e.g., walk at lunch)

How I take care of my **mental** health

- Walk the dog, cook a new meal, learn the guitar
- Reward myself after a study session
- Take a break when I need to, meditate
- Stay social, go into nature
- Start a gratitude journal, being self-compassionate

My **goals**

- Stay focused during synchronous classes and while studying by closing other browsers and putting my phone on silent
- It's okay to let go of certain goals

My **schedule**

- How to plan your schedule: LINK
- Try out a new time-management technique, such as the Pomodoro technique
- You can use any tech/tool for your schedule, not just this space.

My **work space**

- This Growth & Goals module explains how to set SMART goals and become a more proficient learner

How I **minimize distractions** and **set boundaries**

- Take social media and news apps off my phone, limit app time, use an app (e.g., "Focus")
- Tell family members what my work time is and that I need the uninterrupted time
- Use head phones, make a "work playlist"
- Drink water

Where I **find resources**, and **people I can talk to**

- Stay connected
- I can always talk to these people: __, ___, ___
- Ask my instructor questions

My **tasks**

- Walk the dog
- Cook a new meal
- Reward myself after a study session
- Take a break when I need to
- Call a friend to say hi
- Explore the technology being used in the course

- You can chose the timeline to use for each section, e.g., daily, weekly.
- There are excellent, detailed resources online, such as: https://students.carleton.ca/2020/03/top-ten-tips-to-study-online/
- Icons from Freepik, Kiranshastry, Nikita Golubev, Kiranshastry, Catkuro, and Eucalyp from Flaticon
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Plan for online learning and work

Fill in. Post in a prominent place. Revisit regularly ☺

How I take care of my **physical** health

How I take care of my **mental** health

My **goals**

My **schedule**

My **work space** and how I **set boundaries**

How I **minimize distractions**

Where I **find resources**, and **people I can talk to**

My **tasks**

- You can chose the timeline to use for each section, e.g., daily, weekly.
- There are excellent, detailed resources online, such as: https://students.carleton.ca/2020/03/top-ten-tips-to-study-online/
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Encourage developing learning skills

The Growth & Goals module was developed to help students become more efficient learners.

Two version are available in English and French:

- a course-integrated version, meant to be linked with the course's intended learning outcomes, ideal study strategies, and support options
- a course-independent version, which can be used by anyone in any area (e.g., academic, athletic, artistic)

The infographic below gives a brief overview of the module. PDF version of the infographic here.

Growth & Goals Module
Chair in University Teaching, Alison Flynn

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uOttawa

Challenges

Students face many different course and life expectations and a rapidly changing environment

Two Undergraduate Degree Level Expectations are rarely addressed in courses: knowledge of the limits of knowledge (UDLE 5) and autonomy and professional capacity skills (UDLE 6)

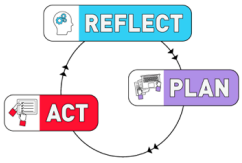
Need for capacity building that is adaptable to a variety of contexts (e.g., French, English, many disciplines)

Approach: **Growth & Goals** Module

GROWTH & GOALS

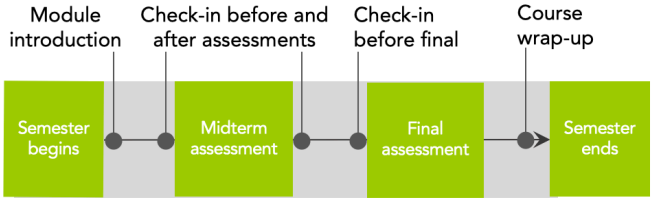
 An Open Education Resource (OER)

What is the **module**?



Self-regulated learning

Metacognition



Growth Mindset

SMART goals

Integrated in courses, aligned with **learning outcomes**

FR EN
French and English versions

Exceeds AODA requirements

The module's success exceeds expectations

>3000 Students have used the module

82% Believe the module will improve their learning

97% Are using or plan to use the module's concepts in another course (n = 43)

80% First time doing such training

>75% Complete the module when it's worth ≥ 1% of grade

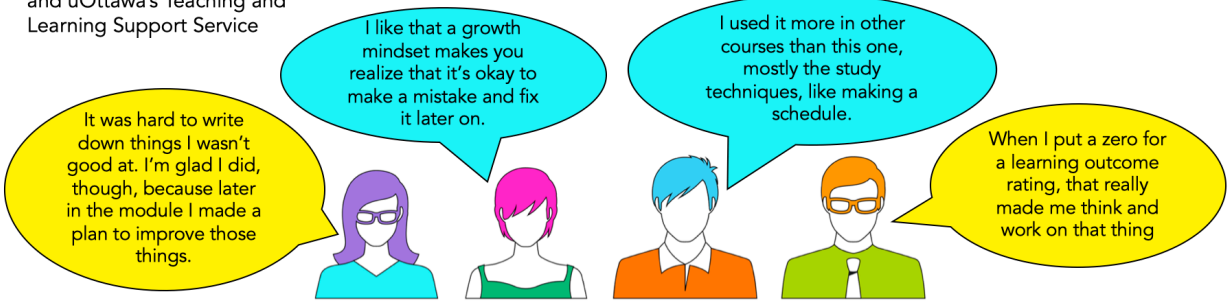
Metacognitive skills improve within a single semester

6 
Development team members, including students and uOttawa's Teaching and Learning Support Service

9 
Evaluation team members

20 Presentations

>10 Courses in >5 institutions use the module, US & Canada



Integrating the module in a course

1 – 4 hours
Adapt a template
No major course changes
Align with learning outcomes

Instructions and support provided

Results export to spreadsheet

Reuse in future years

Encourage students to learn more about learning online

This module from the Learning Portal has a fantastic, systematic set of resources for students to become more proficient online learners.

To go deeper

Develop (and share?) your own methods of supporting students with the education community.

Up next

The next chapter involves supporting students' wellness, including physical and mental health.

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

9.

ADDRESSING WELLNESS

By the end of this chapter, you'll be able to identify and implement methods to address students' wellness.

"**Wellness** is an active process of becoming aware of and making choices toward a healthy and fulfilling life. Wellness is more than being free from illness, it is a dynamic process of change and growth." – UC Davis

> "...a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."
> – The World Health Organization

> "a conscious, self-directed and evolving process of achieving full potential."
> – The National Wellness Institute

To support students' wellness, you can suggest that they:

Visit uOttawa services

- Mental health and wellness: Staying well during COVID-19
- Health Services includes a Mental Health group, healthy lifestyles, and other services.
- Student Academic Support Services provide many tools and resources, including counselling.

Consult external resources

- More Feet on the Ground. "This online resource is intended to be a one-stop shop for any campus professional or student leader looking to understand

more about mental health and refer a student to relevant programs or departments. It was developed to help faculty, administration and campus staff learn how to recognize, respond and refer students experiencing mental health issues on campus... This resource was developed by the Council of Ontario Universities, Brock University, and the Centre for Innovation in Campus Mental Health, which is funded by the Ontario Government."

- Consult resources on staying emotionally healthy during a pandemic, such as:
  - "How to Stay Emotionally Healthy During the Coronavirus Outbreak" by Jamie D. Aten, in Psychology Today, Mar 2020.

How and when to provide suggestions and resources

There are no rules for this but some ideas include:

- Sending periodic Brightspace announcements, which can be set up in advance.
- You can put resources links like the ones above in a Resources section in Brightspace, available in the Brightspace template, located in "Quick start overview and resource documents".

Université d'Ottawa | University of Ottawa

HELPING SOMEONE IN DISTRESS

RECOGNIZE UNUSUAL BEHAVIOUR

Do you see any behaviour that may be out of character or unusual for someone? Early intervention plays a key role in supporting mental health challenges.

RESPOND WITH CONCERN AND EMPATHY

Non-judgmental and supportive language includes:

"I have noticed..."
"I am concerned..."
"I hear what you are saying..."
"How can I help you to..."

REFER THE PERSON TO AVAILABLE RESOURCES

Non-judgmental and supportive language includes:

"What do you need in order to..."
"Can I suggest..."
"uOttawa Wellness website has lots of resources. Let's look at it together..."

HIGH RISK OF HARM

Behaviour that is violent, destructive, harmful, aggressive or threatening to self or others. **This is an emergency.**

uOttawa Protection Services, 24/7:
613-562-5411

Off Campus Emergency Services, 24/7:
911

MODERATE RISK OF HARM

Changes in personal appearance and hygiene, low mood, avoidance of people, substance use concerns, disorganized thinking, expressions of hopelessness, or references to suicide.

Students, (Good2Talk), 24/7:
1-866-925-5454

Employee and Family Assistance Program (EFAP), 24/7:
1-844-880-9142

LOW RISK OF HARM

Difficulty with studies, family or relationship problems, chronic health conditions, difficulty concentrating, issues with sleep, increased interpersonal conflict.

For all services and many more resources
uOttawa.ca/wellness

Original concept for this document courtesy of University of British Columbia Vancouver campus.

uOttawa

HELPING YOURSELF WHEN IN DISTRESS

RECOGNIZE Have you noticed unusual behaviour or feelings?

HIGH RISK OF HARM

Are you thinking frequently of harming yourself, or seriously considering suicide?

Are you missing most of your classes or work?

MODERATE RISK OF HARM

Are you avoiding family, coworkers and friends or feeling isolated?

Have you stopped taking care of yourself or your personal hygiene?

Has something unexpected happened in your life, like a death or accident?

Are you taking substances, like drugs or alcohol to cope?

LOW RISK OF HARM

Are you feeling overwhelmed in your studies or your work?

Are you having family or relationship issues?

Are you having difficulties concentrating or with your sleep?

RESPOND Reach out to the uOttawa community

The uOttawa community has resources to help. What works for you right now?

STUDENTS	EMPLOYEES
24/7 Help	
• **Good2Talk, 24/7 bilingual student helpline** – 1-866-925-5454 • **Undergraduate Health Plan (UOSU)** - 1-844-741-6389 • **Graduate Health Plan (GSAED)** – 1-855-649-8641	• **Employee and Family Assistance Program (EFAP)** 1-844-880-9142 • **Crisis Line:** 613-722-6914 or 1-866-996-0991 (Bilingual)
Speak to someone in person	
Counselling: Walk-in, or pick an appointment online that suits you at sass.uOttawa.ca/en/personal, by calling 613-562-5200 or by email at couns@uOttawa.ca. • The team at Counselling Services is there to help students dealing with difficulties impacting their academic studies, so please consider reaching out to speak to them confidentially about your particular needs.	• **Book an appointment via the EFAP at 1-844-880-9142** • **Health issues related to work, contact the Health and Wellness Sector, Human Resources 613-562-5800 ext: 1473** • **Manulife Health Plan** Eligible employees can be reimbursed for expenses related to eligible health professionals, see 'My Info' section of Human Resources website for more information about benefits.

Should you require medical support, please consult with your physician or health professional.
The University of Ottawa Health Service Family Health Team is available on campus.
Visit the walk-in clinic or call to make an appointment with a family doctor or nurse practitioner: 613-564-3950

If at any time you are at immediate risk of harming yourself or others,
on campus call Protection at 613-562-5411, or off-campus call Emergency Services at 911

REFER Learn about the many supports available to help

uOttawa.ca/wellness

uOttawa

Up next

The next chapter addresses the possible roles of teaching assistants in a remote course.

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10.

TEACHING ASSISTANTS' ROLES

By the end of this chapter you'll be able to identify roles for Teaching Assistants in a remote course and help **TAs** prepare for their role.

In this chapter

TAs' roles

There are three main roles to consider for teaching assistants (**TAs**). For these options, training will ideally be available to them.

Note that teaching assistants at uOttawa are members of the Canadian Union of Public Employees (CUPE) – Local 2626. Job postings and contracts are done in line with that agreement. More information can be found on the CUPE 2626 site.

Contributors and co-creators

TAs can help create course content, such as videos and problem sets for laboratory and theory courses. They can help to identify the approaches to be used in the remote course. TAs are also valuable sources of advice during the course—they often have valuable suggestions to improve the course and identifying issues that arise, which will be particularly important in this remote teaching model.

Facilitators

TAs can:

- Facilitate **DGDs** or laboratory tutorials. The chapter on DGDs/tutorials in the TA guide may be helpful here.
- Support synchronous (virtual class) sessions by answering questions in the chat (bringing up common questions/issues for whole class discussion), visiting breakout rooms to answer questions, *etc.*
- Guide discussion forum conversations
- Respond to emails
- Support the course in other ways.

Markers/Graders

TAs are often involved in grading assignments, exams, and other work.

Helping TAs prepare for their role

General

Meet with the course's TAs before the course to:

- Understand their previous experience as a TA in general and in an online environment. What has worked well for them in the past? What hasn't?
- Share the syllabus
- Identify the TAs' responsibilities in the course, including timelines (e.g., responding to students' emails, marking)?
- Describe the technologies that will be used in the course (e.g., Brightspace, Teams, Zoom)?
  - What should the TAs' level of expertise be in using these technologies?
  - How will they learn to use these technologies?
  - Ensure that TAs can access the course technologies
- Identify the equipment that TAs will need
  - Wifi
  - Digital writing method (e.g., iPad + Apple pencil, Windows Surface Pro)
- Identify the aspects of the course in which TAs should participate (e.g., classes)

    - If TAs are attending classes, identify their role during that time (e.g., attendee to learn the material and expectations, facilitator to help monitor and respond to questions in the chat, help facilitate breakout groups)
- Share the TA guide or other resources and identify particular aspects that you would like the TA to read

DGDs/Tutorials

- How do you envision **DGDs** to be run? The chapter on DGDs/tutorials in the TA guide could be helpful here.
- Identify any examples of past material that TAs can use (e.g., problem sets for DGDs)

Marking

- Identify the kind of marking that will be involved
- How is the marking done and returned to students, for example:
    - Marking scheme, rubric, other
    - Directly in the learning management system (Brightspace at uOttawa), download files (store where/how?), or with software such as Crowdmark, Excel for recording grades
- What kind of feedback should TAs be providing?
- What are the timelines/deadlines?
- How should the TA contact you with questions and/or to review the marking?

Communication

- What is the best way to communicate with you?
- Would you like to receive feedback about how the course is going from the TAs' perspectives? If so, how should that feedback be shared (e.g., survey, email every week with ideas)?

To go deeper

Carleton University has some excellent information about working with TAs in an online environment.

The following articles explain ways in which students can be involved in educational design:

- Healey, M.; Flint, A.; Harrington, K. Engagement through Partnership: Students as Partners in Learning and Teaching in Higher Education. *High. Educ. Acad.* **2014**. Link
- Curran, R. Students as Partners—Good for Students, Good for Staff: A Study on the Impact of Partnership Working and How This Translates to Improved Student-Staff Engagement. *Int. J. Students as Partners* **2017**, *1* (2). Link

Up next

The next chapter addresses equity in the online environment, with a particular focus on education during a pandemic.

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

11.

ADDRESSING EQUITY IN AN ONLINE COURSE

With this chapter, you'll be able to identify and address the ways in which the pandemic is affecting many students and possibly yourself.

Consider how the pandemic affects students

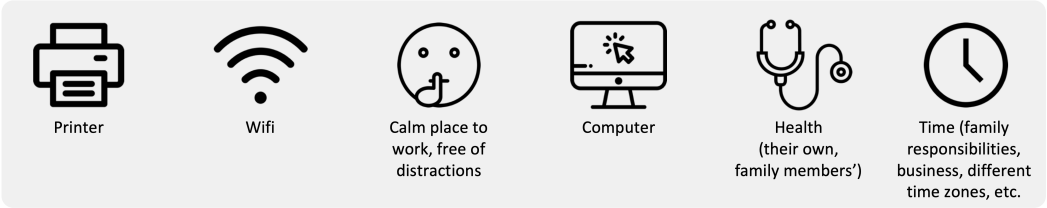
When designing a course for remote instruction, flexibility is important. In this pandemic situation, students have not CHOSEN to take a **remote course**. They are being required to take courses remotely and may not even have taken an **online course** before. Even if they had made that choice, a pandemic is not the ideal circumstance in which to begin that experience.

Students will not have equitable access to essential tools and materials for an online course. For example, students may: (i) not have a printer, (ii) have poor or no wifi, (iii) not have a calm place to work, (iv) not have a suitable device, (v) health (their own or family members'), or (vi) may be working in a different time zone, be working for a family business, or have other responsibilities that take time away from their studies.

It is easy to imagine myriad ways in student identity could line up with challenges they will experience as remote learners. Remember also that **intersectionality** makes potential challenges more complex and hard to fully address in advance.

We suggest simply addressing this issue at the outset of the course, and acknowledging the circumstances in which we all find ourselves (students, professors, TAs). We share the goal of trying to include everyone, regardless of their circumstances. Including everyone with reasonably similar effectiveness will simply require a bit of extra care and patience. This does not imply discarding

academic standards, but does imply applying them thoughtfully in an individual way wherever practical.



Students may not have access to these elements during the pandemic.

To address potential issues, you can ask students what tools they have available to they, for example, by copying this questionnaire (adapt as desired). Using asynchronous options is one way to allow for greater flexibility in the course. There are also lower bandwidth alternatives to common tools that you may wish to explore.

Student can be referred to uOttawa's Student Academic Support Services, and Accommodation Services (formerly "Access Services") in particular. Educators should add an accommodation statement to their syllabi.

Remember how the pandemic affects you

Students are not the only ones who have or will experience serious challenges. Professors and TAs are subject to all of the same constraints. Pressures could even be greater under some circumstances.

Be kind to yourself and forgiving of colleagues. We suggest giving yourself extra time to get things done if you find yourself managing many obligations. If colleagues appear to breeze through some of the challenges that take you longer, maybe they do not have children, or their children are grown, or… just, be kind.

To go deeper

- Gavan Watson describes three ways to "increase your own awareness and strategies to thoughtfully facilitate course conversations related to race, while addressing your own concerns on undertaking such work" in a paper and two resources.
- Equity and inclusion in an online course
  - International Society for the Scholarship of Teaching and Learning

collaborative document

- Increasing inclusivity in the classroom: cft.vanderbilt.edu/guides-sub-pages/increasing-inclusivity-in-the-classroom

Up next

Where to find help and advice. We know that this large change in course structure is demanding. The following chapter explains where to find additional support and resources.

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12.

WHERE TO FIND HELP AND ADVICE

With this chapter, you'll be able to identify various sources of support in the transition to remote teaching.

Teaching and Learning Support Service

The (**TLSS**) offers guides and support (e.g., phone, email) for creating each aspect of the course in Brightspace. They also offer a series of webinars on aspects of remote teaching using a synchronous model; currently, you register and can see the webinar while it is being broadcast, but not yet any other way.

Faculty of Science support

We have created a discussion space for uOttawa professors and staff involved in education (on Slack). André Dault can be contacted about technical questions for particular platforms. If he cannot answer them, he will be able to recommend the next best place to go.

Members of the Faculty of Science will be holding workshops and webinars on specific topics. For example, professors Elaine Beaulieu and Colin Montpetit are planning sessions for the Faculty of Science.

We are planning a guide for teaching assistants as well as training sessions for teaching assistants in early August (e.g., on facilitating online **DGDs**, creating content).

Next steps

Periodically, we hope to showcase effective and timely approaches to remote courses that you have taken. Please let us know if you would be willing to share your course for that purpose, as well as your thinking behind it. We could all use a little extra inspiration.

The chapter "Specific examples of video set-ups" contains explanations and examples of video set-ups.

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SPECIFIC EXAMPLES OF VIDEO SET-UPS

This section contains specific examples about set-ups, recording, and processing options, organized from the simplest to the most advanced. Prior to presenting these ordered examples, we include a reminder about keeping learning outcomes in mind throughout the workflow process of generating remote learning content.

The chapter entitled "Tools and techniques for creating and sharing content" described key guidelines to consider when making videos, in order to maximize student learning and engagement.

The learning outcomes should inform the choice of technologies, not the other way around. What do students need to take away from this course? Then decide on the tools you need to accomplish your goals. Keep things simple by using tools that you already have and know, to the extent possible.

You will probably encounter learning curves when creating workflows that are needed to create good quality remote learning materials.

Aligning with the course's intended learning outcomes: tech in service of teaching

- **Set-up**: iPad (or tablet such as Wacom), Notability, PPT or PDF (for slides), Blue Yeti microphone, built-in computer webcam
- **Content**: Video segments chosen according to the course's intended **learning outcomes**
- **Processing**: Camtasia (alternatively: YouTube Studio — learn how, iMovie, or other video editing software) → Export to MP4 → upload to YouTube as public or private → post in Brightspace

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-1

Setting up the course in Brightspace

This video gives a tour of a Brightspace course template that you can adapt for your course. The template can be found in the chapter: Quick start overview and resource documents. The TLSS has detailed guides for each aspect (guides and support).

- **Set-up**: Blue Yeti microphone, built-in computer webcam, Zoom to capture built-in webcam feed; Camtasia to capture computer screen (Brightspace course)
- **Content**: Brightspace screen
- **Processing**: Camtasia (alternatively: YouTube Studio — learn how, iMovie, or other video editing software) → Export to MP4 → upload to YouTube as public → post in Brightspace

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-2

Below, we provide examples for approaches for remote learning video construction that include real-time content creation. These examples include:

1. Creating a video of handwriting on a blank page (the remote learner's blackboard…), with video and audio captured using an iPhone 8, to present a brief section of course material,
2. Creating the handwriting outcome using purely digital tools,
3. Approaches with a bit more sophistication around inlaying the professor's image inside the image of course slides using a greenscreen,
4. An example of a video-based lab demo,
5. A high production value video showing what a leading professor can achieve with a team of video production professionals intended to provide a little inspiration.

Example 1 – Handwritten notes

- **Set-up**: iPhone, stack of books, marker, paper, Make notes ahead of time
- **Content**: Focus on important points, good pacing, smile, use an engaging voice
- **Processing**: YouTube Studio to remove undesired parts (learn how), list as public or private, post in Brightspace

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-3

Example 2 – Digital handwriting and slides

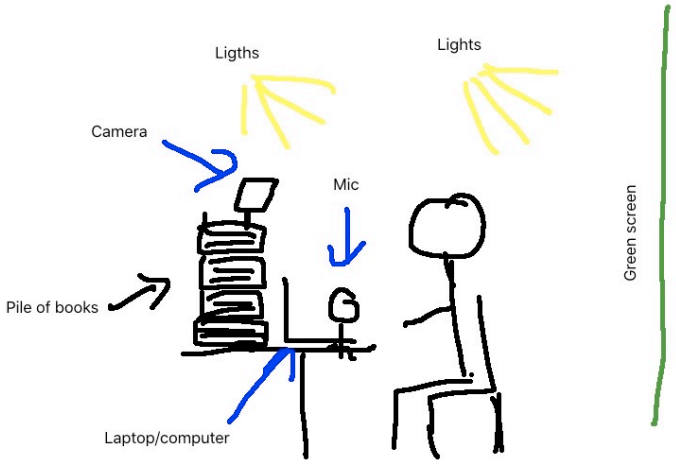
- **Set-up**: iPad (or tablet such as Wacom), Notability, PPT or PDF (for slides), Blue Yeti microphone, built-in computer webcam
- **Content**: Digital handwriting, can correct mistakes
- **Processing**: Camtasia (alternatively: YouTube Studio — learn how, iMovie, or other video editing software) → Export to MP4 → upload to YouTube as public or private → post in Brightspace

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-4

Example 3 – Recording using slides and green screen

In this example, Dr. Elaine Beaulieu describes how she creates videos using a combination of tools.

- **Preparation**:
  - *Equipment*: Snowball microphone, Logitech HD Pro Webcam (C920), Camtasia editing software, lights and green screen (easy to buy as kits on Amazon)
  - *Set-up*: Videos recorded on laptop using Camtasia software, which captures sound, computer screen and video output. Video camera should



preferably be rigged so that it is slightly above eye level (avoid nose shots). What ever it is you wish to record on laptop screen will work (powerpoint presentation, web based apps or browsing, drawing, etc...).
  - (A note from the Flynn & Kerr: A green screen is optional. It lets you "cut out" your image within a video more easily.)
  - My green screen is small and only allows me to sit in front of computer to capture my image, I set up lighting for the green screen (even lighting on the green screen helps processing image during editing), but mostly on me.

- **Content**: Most videos are recorded with at least a minimum of script preparation, but nothing is rehearsed. I don't rehearse my lectures, so I mostly

don't rehearse videos either, I accept it's not going to be perfect, but time constraints means "good enough" is totally acceptable.The process may differ for the purpose of the video. Depending whether I am recording an emergency lecture (end of last semester), a blended course video resource or whether I am answering a student's question.

- **Processing**: Videos were all edited in Camtasia or Quicktime (a free alternative would be tinytake). All my videos were posted in YouTube. When uploading a video into your account, you can create a playlist for your class, and you can chose who can see you videos : private, unlisted or public. I normally choose the unlisted option for my courses, which means your video would not come up in a YouTube search, but anyone with the link can access it. I specify to my students, in my syllabus and at the beginning of class, that all my teaching material, PPT, videos, activities, etc. are my intellectual property, which means they cannot reproduce it or post it somewhere else or distribute it without my consent.

Example 4a

Here is an example of a lecture. There is little editing apart from moving my image left to right and perhaps zooming in/out. This is a very simple recording, and adding a video of myself is optional, but I add it because I'm comfortable with the tech and because I believe, perhaps wrongly, that my presence on screen is more engaging than screencast alone.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-5

Example 3b

Here is a video recorded for a blended learning class, where students have tasks to accomplish and I am guiding them in learning how to use the software needed to accomplish the task. You'll notice there is generally more editing to these videos

(arrows, text bubbles, zooming in and zooming in/out) than there is in lecturing video. This means the process is more time consuming and demands greater knowledge of video editing:

https://youtu.be/0dHrkofO-Gc

It is also possible to create short videos that answer specific questions: just make sure you link to them in ways that make both the question and your answer easy for students to see and find.

Example 4 – Laboratory video

Here is an example from Dr. Horace Luong at the University of Manitoba. This example uses a more advanced set-up and editing, so the details can be found in the attached document.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-6

Example 5 – Full production

In this most advanced example, Professor François Chapleau collaborated with an external firm to produce this incredible video. While such production goes far beyond an individual's editing capacities (unless you are Steven Spielberg, maybe), we did want to show an example of what was possible when working with a team of professionals in the area.

This examples is provided more as inspiration than as a spur for aspiration.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/remotecourse/?p=388#oembed-7

Up next

In the next section, we thank all those who contributed to the making of this guide. We are grateful!

Please feel free to contact us at any time with questions, suggestions, and concerns. In particular, we check this form each semester and will continue to update this guide as the situation evolves.

ACKNOWLEDGEMENTS

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We also sincerely thank all the educators and institutions who chose to make their work openly available so that we might use it in this guide, with credit to that work when it is cited.

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