Preparing for a More Inclusive Course

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Teaching to Promote Inclusion and Celebrate Diversity

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Contents

Preface

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The project was supported and funded by eCampusOntario.

About eCampusOntario

eCampusOntario is a not-for-profit corporation funded by the Government of Ontario. It serves as a centre of excellence in online and technology-enabled learning for all publicly funded colleges and universities in Ontario and has embarked on a bold mission to widen access to post-secondary education and training in Ontario. This textbook is part of eCampusOntario's open textbook library, which provides free learning resources in a wide range of subject areas. These open textbooks can be assigned by instructors for their classes and can be downloaded by learners to electronic devices or printed. These free and open educational resources are customizable to meet a wide range of learning needs, and we invite instructors to review and adopt the resources for use in their courses.

Note to Educators Using this Resource

We encourage you to use this resource and would love to hear if you have integrated it into your curriculum. Please consider notifying Dr. Allyson MacLean (amaclea3@uOttawa.ca).

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PART I

INTRODUCTION

1. Introduction

Welcome!

We're glad you're here and are interested in how education could be made more inclusive. In this introduction, you'll find some background information on issues surrounding inclusion in education, some groups and aspects to consider when thinking about course changes, and how reflecting on ourselves plays an important role.

The book is organized in the same way many of us prepare our courses, starting with the syllabus, intended learning outcomes and course structure, moving through to course content (e.g., classes, notes, activities), environment, assessments, and other aspects of instruction and design.

Introduction

The premise of inclusion should be thoroughly uncontroversial. The job of professors, instructors, and educators of all kinds is to offer each student in their classes the same opportunities to learn and expand their horizons. It is part of the basic definition of what it means to do this job. That educators want all their students to succeed is axiomatic, particularly those who are interested in reading a book of this kind.

Nevertheless, the challenges of learning can differ enormously among individuals, and many of those challenges align with their identities, cultural backgrounds, privileges, and capacities. None of these characteristics predicts talent in any discipline. Yet, student success nevertheless correlates with individual characteristics [Caballero et al. 2007, Wei et al. 2018]. In other words, characteristics do not predict talent, but characteristics do relate to success. The inclusion gap is the space between talent and success, and it is created, in part, by obstacles to inclusion that we hope this resource might help reduce.

While the idea of inclusion – what we refer to as "inclusion by default" – ought to be obvious, achieving an inclusive learning environment can be challenging. Failures to account for diversity in learning environments can lead to systemic *exclusion* of students for reasons that are unrelated to their ability, effort, or ambition. This outcome is the antithesis of what educators aim to achieve.

The challenge is made greater because learning spaces are inequitable, rather than inclusive, by default. The educator has particular responsibilities and authority, and wielding that authority carefully and in the interests of all students is simply hard to do well all the time. After all, the responsibility for selecting a curriculum, designing course content, choosing examples to make concepts more concrete and relatable, and evaluating students traditionally rest largely or entirely with the educator.

Finally, educators are models of academic success. That kind of success can pose a daunting problem for students. A professional educator is likely to have some combination of academic talent, good fortune, and privilege that meant they could pursue and excel at academic work at its most advanced levels. If university courses worked for the educator, why shouldn't the same courses work equally well for each subsequent student? There may be times when this seems like it must be true. For example, hard work is critical to success, and becoming a professional educator certainly requires a lot of hard work. Maybe students should just put in that sort of intense effort, and then their success might be be limited only by their intrinsic talents? Even this simple view – commonly held – is a fallacy of privilege. Leaving aside such critical challenges as historic and present-day discrimination, many students cannot dedicate their time purely to learning because their economic circumstances require them to hold down part-time or full-time jobs to enable them to pay for their

education or support family. A pathway that worked for an educator may be unavailable to their students. Educators need to understand that the road they took to academic excellence may simply be inaccessible or impractical for many of their students.

The triple issues of practicing teaching philosophies that are inclusive by default, managing the intrinsic inequity of nearly any conventional learning environment, and taking account of personal privilege in helping students learn are key motivations for preparing this book. To these, we add that many educators can *also* experience discrimination or be targeted by colleagues (and even students) because of their identity. Women professors, for example, are often perceived as less capable than identically (or less) qualified men colleagues and this inequity translates to differences in how students**evaluate professors** (Langbein 1994, Mitchell and Martin 2018). Discrimination and bias should have no place in education (or anywhere else). Yet, educators can be subjected to the same, caustic forces as students.

All too often, we have seen advocates for inclusion offer unconstructive critiques or attacks on efforts to improve equity in academic environments. Obviously, intolerance in this context is intensely hypocritical and leads to exclusion and gatekeeping, the antitheses of inclusion. As authors of this resource, we recognize that we carry our own biases, learned from lifetimes of living in society. Our shared aspiration to eliminate prejudice cannot heal the lived (and sometimes life-altering) experiences of our students and colleagues in being singled out, called out, or labelled because of their identities. A university course cannot wash away such things either. But it is imperative that university courses should never be places where such exclusion is perpetuated.

So, the fundamental goal of this book is to suggest ways to do *better* using a framework that aligns with fairly common approaches to conceiving, designing, and teaching a university-level course. Perfection, which is subjective in this context in any event, should not be the enemy of progress. As instructors, we are uniquely positioned to make a positive difference in students' lives and careers. It's worth it.

As educators, what can we do?

We don't have to be experts in this area to make our courses more inclusive. In this resource, we suggest simple ways to start making our courses more inclusive and further readings and resources. There is no single, correct approach, nor is there a need to do everything at once. Instead, we suggest trying a few things, connecting with and listening to students, then building on those previous steps.

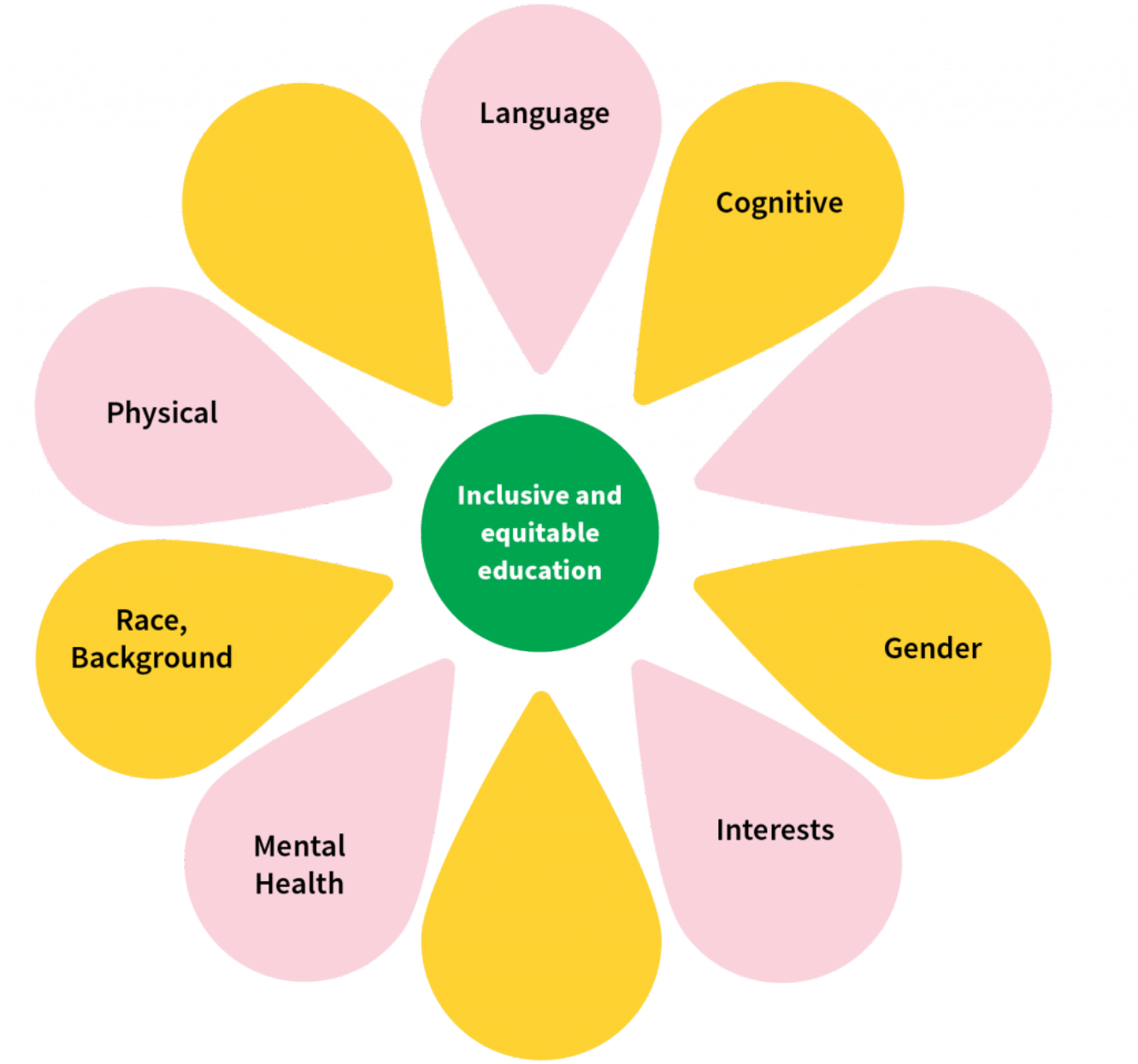
We can also work to identify our own privileges and biases. Project Implicit is one place that aims to identify implicit biases; the Canada Research Chairs' Unconscious Bias Training Module is another. Training for ourselves can also include mental health (e.g., More feet on the Ground) and sexual assault support (e.g., Training on sexual violence support).

Are you designing a new course, teaching a course for the first time or wanting to take steps past this guide? Consider connecting with an educational expert in your Teaching and Learning Centre (e.g., Teaching and Learning Support Service at uOttawa) and/or Library. They have expertise in designing for educational accessibility and inclusion, using frameworks such as Universal Design for Learning. The chapter on Designing a course from scratch has more information.

In what ways can inequities and barriers arise?

Inequities arise in many ways; some are predictable and visible, while others are not. Improving equity, diversity, and inclusion in education involves many components, including: physical (e.g., diversity, disabilities), cognitive (e.g., neurodivergence, attention deficit disorder), emotional, race, background, gender diversity, language,

interests, mental health, wellness, and competing interests (e.g., family, school, athletics, job). We hope you find some useful suggestions in this guide to do just that.



Our actions in our courses can directly impact students, their education, and their careers.

[The following examples come from current and recently-graduated students at the University of Ottawa. add experiences and useful approaches/solutions]

A key idea behind making education more equitable is that learners may follow different paths as they progress toward the same learning outcome. A student with attention deficit disorder may need a quiet work environment to work through complex problems; a student with a back injury may need a standing desk. In each case, the learner has the opportunity to demonstrate that they can achieve the same learning outcome, simply using a different path. We dive into specific accommodations and general approaches to making an overall course more inclusive through the eBook. [add graphic of getting to top of mountain or over a finish line through different paths]

Another key idea is making education more inclusive, which can involve simple statements of welcome and showing diverse role models. Such acts can indicate that traditionally excluded learners will not only be welcomed in the course space, but that they can also see themselves in successful careers in that field.

Intended outcomes of your efforts

As you consider changes to your course, what outcomes are you hoping for? These could include that:

- Everybody from a traditionally excluded group would be able to achieve a comparable outcome.
- People's feelings about the quality of their learning (ability to learn, career readiness) would be comparable.
- People's feelings about their classroom experience (feelings of inclusion, connectedness).

Take a few minutes and write down your own intentions or intended outcomes.

Once you have made the changes to your own course, what will you see or hear differently?

How will you know that you have accomplished those outcomes?

Some definitions

Equity

Diversity

Inclusion

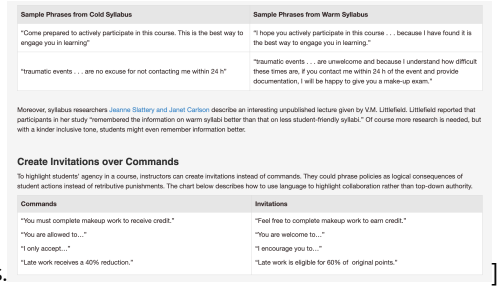
Let's get started!

PART II

PREPARING FOR A MORE INCLUSIVE COURSE

2. The Syllabus

In this chapter, we describe ways that the syllabus can be made more approachable and be used to communicate the inclusive nature of your course. First impressions count, and the syllabus serves this purpose. Since the syllabus is the students' first contact with your course, this is an opportunity to communicate your intentions and create the environment you want for the course. While there are required elements, there is lots of room for your own voice and approach. "Accessible Syllabus" provides excellent recommendations for making the syllabus more readable, accessible, and with an inclusive tone.

[graphic of various buildings/spaces/experiences that show different emotions: giant gates, happy open spaces... to show the difference between a cold, commanding syllabus and a warm, inviting one – examples included below are from Accessible Syllabus. 

Sample Phrases from Cold Syllabus	Sample Phrases from Warm Syllabus
"Come prepared to actively participate in this course. This is the best way to engage you in learning"	"I hope you actively participate in this course . . . because I have found it is the best way to engage you in learning."
"traumatic events . . . are no excuse for not contacting me within 24 h"	"traumatic events . . . are unwelcome and because I understand how difficult these times are, if you contact me within 24 h of the event and provide documentation, I will be happy to give you a make-up exam."

Moreover, syllabus researchers Jeanne Slattery and Janet Carlson describe an interesting unpublished lecture given by V.M. Littlefield. Littlefield reported that participants in her study "remembered the information on warm syllabi better than that on less student-friendly syllabi." Of course more research is needed, but with a kinder inclusive tone, students might even remember information better.

Create Invitations over Commands

To highlight students' agency in a course, instructors can create invitations instead of commands. They could phrase policies as logical consequences of student actions instead of retributive punishments. The chart below describes how to use language to highlight collaboration rather than top-down authority.

Commands	Invitations
"You must complete makeup work to receive credit."	"Feel free to complete makeup work to earn credit."
"You are allowed to…"	"You are welcome to…"
"I only accept…"	"I encourage you to…"
"Late work receives a 40% reduction."	"Late work is eligible for 60% of original points."

]

> **As you work through this chapter, we recommend having your syllabus open and working along.**

Remember to share the document with students in an accessible format and share it in a small file size (e.g., as a PDF set up for electronic distribution and accessibility).

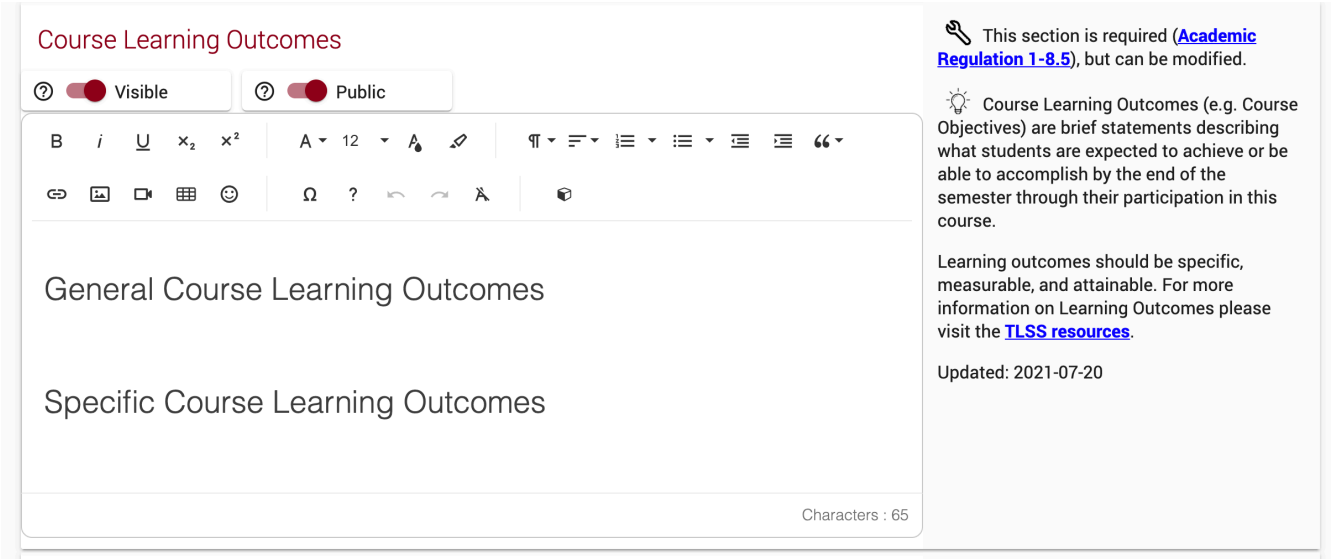
Elements the syllabus has to include

There are some items that a syllabus has to include. For uOttawa, the list is below and is provided in the Academic Regulations: [can this list be made into an H5P slider or other (nicer) format?]

- the course description approved by Senate;
- learning outcomes,
- teaching methods;
- assessment methods and weighting of grades;
- a list of required and recommended readings;
- a calendar of activities and evaluations;
- course attendance requirements;
- the professor's contact information and office hours;
- a reference to the regulation on plagiarism and academic fraud;
- a statement that assessments can be written in French or English.

Starting to seem long? Students will likely not read the syllabus from start to finish and that's okay. The syllabus is their road map and reference document for important information in the course, which they can consult as needed. You may want to highlight various aspects of the syllabus at various times in your course, such as expectations about academic integrity leading up to major assessments and student resources throughout the course.

Many institutions provide a template that can be used to make the job easier. uOttawa currently uses Simple Syllabus, a cloud-based syllabus template that is accompanied by university regulations and recommendations for creating the syllabus. Systems like this are great for ensuring your syllabus includes everything your university requires. The key thing is to ensure the content is there, not that you follow a pre-defined format.



[note: alt tags and/or long descriptions are needed for text in all figures]

With most of the required elements, you can choose the tone and wording. More on that in the next section.

Setting a tone of welcome and inclusion

As the first document the students read in the course, the syllabus is a great place to welcome students and prepare the environment you want for the course. For example, you can introduce yourself and teaching assistants, including pronouns (bear in mind that sharing pronouns is optional).

You can also include a statement about diversity and inclusion, a chance to communicate that you care about this issue. You could also include a specific statement that you will work with students to implement approved accommodations (e.g., academic, religious, illness) or other flexibility that you include (e.g., sliding scale on a grading scheme).

You can include an **Indigenous affirmation**, using one developed by your institution, another source, or going beyond the script. Here are some examples:

- uottawa.ca/indigenous
- native-land.ca
- caut.ca/content/guide-acknowledging-first-peoples-traditional-territory
- Territorial acknowledgements: Going beyond the script

> We pay respect to the Algonquin people, who are the traditional guardians of this land. We acknowledge their longstanding relationship with this territory, which remains unceded. We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home. We acknowledge the traditional knowledge keepers, both young and old. And we honour their courageous leaders: past, present, and future. – Indigenous Affirmation from uOttawa

A note on gender declarations

Some people identify their gender (*e.g.*, she/her, they/them) when they introduce themselves, in their signature, *etc.*, including professors in their syllabi. A core reason for stating pronouns is to communicate that everyone is welcome in the course, including people of all genders. Declaring gender is completely optional; you, the teaching assistants, or students may not wish to do so. While there are good reasons for some to declare their gender, there is an endless array of reasons why people may not want to do so (imagine someone transitioning, for example). Such a declaration should remain a personal choice. [possible to put genders on the speech bubbles]

Decisions about resource materials (e.g., textbooks)

Textbooks and other course materials

As you make decisions about which textbook or other material to use in the course, choose accessible ones, respect copyright, and consider selection criteria that include EDI concepts: what experts (e.g., scientists) are represented, how are discoveries described, what kind of language does the resource use? For example, Diversity Chemistry is a site that can help find diverse examples of chemists who work in a variety of fields.

If you have any questions, the Library's experts are available to support you—be sure to give them enough time to answer your questions or for additional support. For example, if you need to scan materials, the library's Course Reserve Service (using Ares at uOttawa) can scan these for you, in an accessible version. If you're showing films or videos, the library can support you in adding captions (and meet AODA requirements); they do need sufficient advance notice (e.g., 1 – 6 weeks).

> Be sure that the course documents are **accessible** and **respect copyright**. Bonus points if you purposefully choose diverse sources and role models.

Open Education Resources (OERs)

Consider using **Open Education Resources** (OERs) in your course. OER are "learning and teaching materials that are **freely** and **openly** available. They range from textbooks to entire courses and everything in between, including videos, podcasts, tests and exercises, websites, software, simulations, case studies, presentations slides, and more. The key is that they can be widely distributed and adapted because they are at no cost to the user and are not subject to the usual copyright restrictions. This openness is most often indicated by a Creative Commons licence." –uOttawa Library [find "his or her" → "their"]

Benefits of OERs

Based on uOttawa's description, here are some key benefits of OERs:

- OER are affordable for students, making education more accessible.
- OER allow you to customize and adapt to the course context, providing a richer teaching and learning opportunity.
- Students can benefit from multiple learning styles because OER can incorporate various content formats

(text, audio, video or multimedia) and interactive elements.
- Remote and continued access since most OER are digital, do not require an access code and do not expire.
- Contribute to students' success and completion by easing their financial burden without having a negative impact on their learning (e.g., Bol et al., 2021)

Finding OERs for your discipline

You can find OERs through your library (e.g., uOttawa Library, by discipline) and other sources such as eCampusOntario and BCcampus.

Communication

[check: I think this might be in another chapter too]

Encourage students to connect with you and other members of your instructional team. Students can be intimidated by the idea of speaking with a professor—with you. 🙂 Introducing yourself is one of the ways you can become a little more approachable.

Some professors find that their office hours are not well-attended. There can be a few reasons for that, such as mis-matched schedule, difficulties finding or accessing the prof's office, students not knowing what office hours are for, or students being intimidated by approaching the professor. Professors have taken a number of approaches to encourage students to make contact:

- holding office hours right after class – students can go in a group or walk with you (they can be held near the class or online, rather than your physical office)
- identifying a theme for each week, such as strategies for succeeding in this course
- ask students to book time, using an app such as Calendly or another method
- use office hours periodically (e.g., at the start) as a social event (example of Quaf with the Prof)
- "re-branding" office hours to "student" hours: the idea is that changing the name makes the intended audience explicit.

Learning outcomes

While this eBook talks primarily of changes the educator can make to create more inclusive course environments, we can also have expectations of the students' knowledge, skills, and values with respect to equity, diversity, and inclusion as they complete a course or program. Much like other professional skills that students are expected to develop (e.g., teamwork, communication), what are your expectations for students' learning in your course or program with respect to EDI?

Some examples could include the following, which are based on uOttawa's chemistry graduate program-level learning outcomes and other sources:

- Demonstrate and promote **academic and professional integrity**, including:
  - EDI-related knowledge, skills, and values and strategies to improve **EDI** (equity, diversity, and inclusion)
  - **Ethics** in conducting experiments/studies and analyzing findings

- Identifying potential **conflicts of interest**.

You may decide to ask students to self-assess these skills and later develop formal assessments (**formative** or **summative**).

Grading policies

Share your policies and procedures for for missed assessments, considering the language you want to use (e.g., Accessible Syllabus) and your institution's existing policies (e.g., uOttawa's academic regulations).

To consider

All sorts of issues can arise for students during a semester, such as a sick family member, caring for siblings, technical issues, etc. You can consider other ways to incorporate flexibility in the course without adding to your own workload, such as allowing students to drop the lowest quiz/assignment mark or allowing multiple formats for an assignment submission.

Including other sections can also help students learn policies, regulations, and resources of the institution, including academic integrity policies, mental health, bilingualism (e.g., being allowed to write assessments in French or English), and Academic supports.

Learn more

[to be added]

3. Academic Accommodations

In this chapter, you'll:

- Recognize reasons why accommodations are critical for inclusive learning: disability and compassion (e.g. varsity sports team participation is accommodated commonly, but a single parent with child care needs is not)
- Identify and implement approved academic accommodations
- Decide what other accommodations or flexibility you wish to offer in your courses

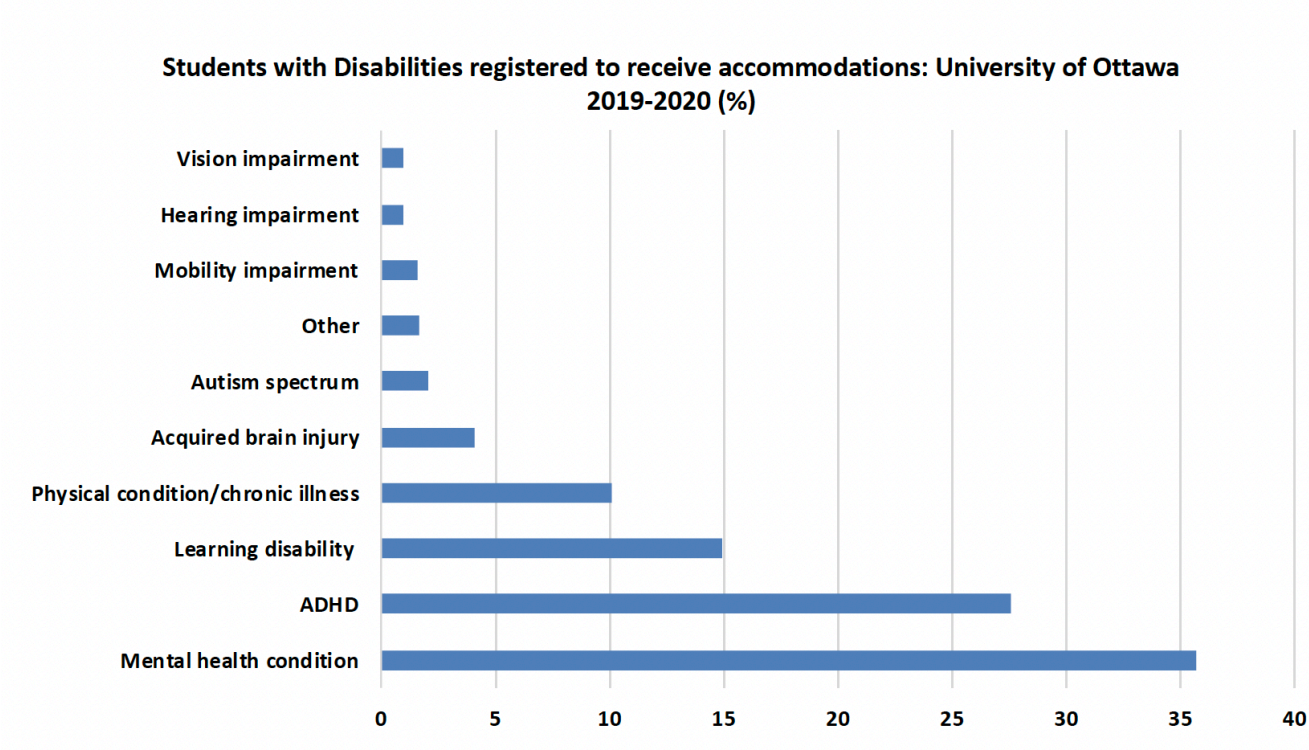
Academic accommodations (e.g., exams)

Models of academic learning are informed by stereotypes we have absorbed from a variety of sources. From the instructor's perspective, a stereotypical view might be that students should learn material that is taught, and that student successes in lectures, lab courses, or discussion groups reflect the work they put into their studies.

Yet, many students face persistent barriers to their learning that are consequences of cognitive, physical, mental health, or other issues. These barriers are common (e.g. 46% of students in universities and colleges in North America contend with depression; Ontario Universities, 2021), and many students in every course are likely trying to overcome one or more of these barriers to their learning and in their lives outside academics.

Academic accommodations support a student's efforts to work around barriers to achieve the learning objectives of a course. Accommodation does not imply compromise or dilution of course content. Standards do not become lower because a thoughtful instructor supported a student's academic accommodation. Rather, accommodation is more like permitting students to find a different pathway to the end result.

Accommodations are needed for a variety of reasons. Academic accommodations can be required by law. Here are recent data from students in our courses at uOttawa. [alt text needed for graphic, which could be re-designed]



[Check with Vincent Beaulieu re permission use; ask for updated #s; cite source]

Academic accommodations are meant to enable students to develop or demonstrate the expected knowledge or skills, using an alternate path.

[image: different paths to the top of the same mountain]

As professors, we do not have a right to know the specific reason for the accommodation; rather, we have access to the nature of the approved accommodation itself. Accommodations are varied and tailored to the situation and can include additional time on exams, large-sized paper, digital exams, *etc.* [image to show some options of accommodations]

Most institutions have a centralized process to review and approve/decline students' requests for exam accommodations for students who have disabilities that may be temporary or permanent, visible or invisible. The goal of these accommodations is to allow "an equitable opportunity to fully access and participate in the learning environment with dignity, autonomy and without impediment while preserving academic freedom, academic integrity, and academic standards."

As educators, we are "responsible for collaborating in the academic accommodation process and for implementing the approved accommodation plan, as applicable:

a. referring all accommodation requests related to a disability to uOttawa's Academic Accommodations Service
b. be alert to the possibility that a person may need an accommodation even if they have not made a specific or formal request.
c. implementing the accommodation plan with the support of Academic Accommodations staff and their faculty, and participating where appropriate in the development of accommodation plans;
d. working collaboratively with Academic Accommodations, the student, and the Faculty to find a satisfactory resolution in those instances where the educator believes that an accommodation plan puts at risk the student's ability to meet academic standard, academic integrity, essential academic requirements and skills; and
e. in collaboration with the Teaching and Learning Support Service [or other Centre for University Teaching],

consider universal design elements of their course that could minimize the need for accommodations."

[graphic to show parts a-e in a simple way?]

If a particular accommodation does not seem appropriate, you can discuss further with the student and/or Academic Accommodations. For example, a student may have an accommodation that seems counter to the learning outcome itself. In that case, a different accommodation may be more appropriate. See uOttawa's Quick Guide.

The process at uOttawa

Before your courses starts and periodically during your course, **log in to the Ventus Professor Portal** to:

- Check the list of accommodations approved for students in your courses; some may involve accommodations during classes (e.g., note-taking, recording, access to slides) or assessment (e.g., time extensions, memory aid, low auditory distractions)
- Submit Notices of Examination (NOE) (deadline is 10 calendar days before the exam!); The Academic Accommodations service will arrange for proctoring exams for students with many accommodations
- Delete and modify NOEs already submitted
- Fill out / edit Proctor Instruction sheets
- See which students have confirmed to write the exam at SASS – Academic Accommodations (with accommodations) or in-class (without accommodation)
- If students have written an exam with Academic Accommodations, their exam will be delivered to your Department shortly after the exam

[image of Ventus page]

Beyond the regulations

Consider adding a statement to your syllabus that tells students that you adhere to the approved accommodations and that they can approach you if desired with questions or concerns. Students are often not aware that they can request accommodations or that educators do have a responsibility to accommodate – a message in the syllabus can help open the lines of communication.

[Flexibility in courses]

4. Course Content and Classes

With this chapter, you'll identify ways to make your course space online more inclusive, through:

- Clear organization
- Accessible content
- Diversifying the space
    - Model diversity
    - Make class time more inclusive
    - Use inclusive language
    - Flexibility in ways to participate

Organize your course with a Learning Management System

Learning Management Systems (LMS) have become very common in university, college, and high school courses, providing easy ways to store, organize, and communicate course content online. Many institutions subscribe to one or more of these platforms, such as D2L Brightspace, Moodle, or Canvas. Each comes with a distinctive learning curve for both the professor and the student, so brace yourself if you are new to the world of LMS. However, learning these systems is time well spent.

Imagine the student's experience as they enter your course on your LMS. How will they know what to do first and what they should expect later? Will students be able to find any material you have provided for an upcoming lecture in a timely way?

Design matters for purposes of inclusion. A simple design reduces stress and frustration for students. On the other hand, haphazard organization or just listing content can lead to flurries of messages from students struggling to find the content they need to access, leading to stress for the instructor also. Consider organizing your course in modules/chapters/sections that guide the students through the recommended order of the course (e.g., video → activity → class notes → class link → assignment…) and sections with quick access (e.g., class notes). [Graphic of this idea vs bad organization]

As simple as this issue sounds, many students struggle with mental health challenges and disorders, and a little extra work on organization is an easy, small step to take toward inclusion. Anxiety disorders are particularly common and tend to appear particularly early in life. About 28.8% of the population is affected by these disorders and their median age of onset is 11 (Kessler et al. 2005). These rates are increasing over time, even before the COVID-19 pandemic. Students in universities and colleges in North America are also experiencing growing rates of depression, and 46% of them report that depression has limited their abilities to function normally (Ontario Universities, 2021). In any large classroom, some of your students are experiencing these or other mental health or physical challenges.

We suggest:

- Making it easy to navigate your LMS, so that course content is organized logically and simply – guide students through the recommended order of activities
- Make course milestones, such as deadline for activities, assignments, or exams, easy to find, and draw your students' attention to these deadlines early and clearly; the LMS' "checklists" or "calendar" functions can also help
- Provide a section with quick access/links to documents or activities they might want to quickly find (e.g.,

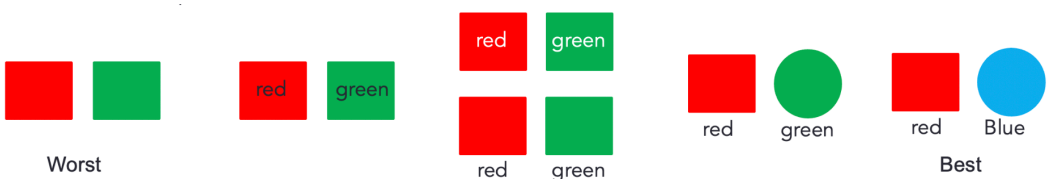
course notes, problem sets)

Create accessible course content

Overall, courses in Ontario need to adhere to the Accessibility for Ontarians with Disabilities Act (AODA). There are many parts to the Act, which a Centre for University Teaching (Teaching and Learning Support Service at uOttawa) and librarians can help you with. Here are some of the most common and important components [to be reviewed for consistency with AODA requirements and priority–other things essential to include here?]:

1. Videos and audio files need to have closed captions or subtitles. Software can help (e.g., Otter.ai, YouTube Studio). Providing a separate transcript is also very helpful. These help people with hearing difficulties and those who are not fluent in the language of communication.
2. Images should use alternative (alt) text, unless they are only decorative. WebAIM has a fantastic describe of alt text: what is is, when to use it, and what to actually *say* in the text.
3. Create office documents using best practices for accessibility. For example:

    - Create slides and other documents with good contrast (resource: contrast checker)
    - Avoid common pairs involved in colour blindness (*e.g.*, red and green) and support colours with shapes and/or text
    - Use simple, straightforward language
    - Avoid tables and table-based document layouts if possible, as these are difficult to interpret for those using a screen reader
    - Organize the document in the order that most directly communicates your ideas
    - Export Word and PPT documents to PDF in the format "Best for electronic printing and accessibility"
    - For slides, use sufficient font size (minimum 20 pt), sans serif type, and minimal text.



Example of colour and contrast pairings, from worst (left) to best (right).

BCcampus has an Accessibility Toolkit that quickly highlights accessibility aspects to consider in courses and other academic setting. [add figure]

More accessible Office documents can be created by following this guide, which includes using text or shapes to support colour use,

Diversify the space

Model diversity

What do you want students to experience when they enter your course? First impressions are lasting impressions. Stereotypical presentations of practitioners of your discipline lead to beliefs around who can pursue careers in that field. For example, in one study, K–12 students asked to draw a scientist overwhelmingly drew men in white lab coats (Miller et al. 2018). Over time, the youngest students have begun to draw women scientists more frequently, but as students get older, the tendency to draw men scientists grows more common. This suggests that society signals that "scientist" is a career that is reserved for men, establishing biases in career expectations later than when this research began in the 1960s.

An easy, small step toward inclusion is to demonstrate diverse practitioners in your field. While students might well arrive in your course with pre-existing biases regarding who can pursue professions in different areas, it is easy to avoid reinforcing them. As an example that illustrates the issue, a recent study of textbooks in the UK found that 77% of scientists represented were men, while only 17% were women; the balance was indeterminable (Murray et al., 2022).

Consider:

- Illustrating concepts, discoveries, and examples in your course using diverse representatives from the field. Here are some possible sources:
  - Diversify Chemistry
  - Black in X
  - Diversity Ecology, Evolution, and Behaviour
  - Disabled and here
- Including a welcome message from yourself and teaching assistants
- Providing a *Resources* section with key information, including about equity, diversity, and inclusion (*e.g.*, course, learning, institutional support services, diverse professionals in your field)

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

You could also hear from students in the course, such as start, middle, and end-of-course surveys. In these, you can ask students for their questions, concerns, what tools they have available for the course, and suggestions for a class playlist, and more! You can use these **adaptable course questionnaires** to make your own version.

Make class time more inclusive

All students should be able to **hear, see, and communicate** in the course. Those principles can guide the choices you make for the course, independent of the course's mode or format. More specific suggestions follow.[add graphic]

Don't assume that students will have the latest technology or the best wifi. We strongly recommend using a survey at the start of the course to find out what tools and resources students do have available. For aspects that you consider essential to the course, try to work with students to find the necessary resources or alternatives (e.g., the library can often support).

Provide the slides in advance, following the principles for content design in the [accessibility chapter]. All students will benefit from being able to focus on you and take key notes, rather than trying to copy everything. Some students will gain additional benefit; for example, a deaf student will be able to share the notes with their interpreter in advance, which allows them to decide on any discipline-specific signs to use in their communication (many ideas do not have a formal sign in languages such as American Sign Language or Langue des signes du Québec).

Recording the session means that students who miss a class will be able to keep up; everyone will be able to review it if desired (e.g., in preparation for an exam). For additional flexibility, you may wish to make it possible to complete your course asynchronously.

Consider arriving a few minutes early and staying late to answer questions, as formal or informal student/office hours.

Teaching *online*? You can enable transcription, share your slides, and invite students to ask questions in

flexible ways (e.g., aloud, chat to everyone, private chat to you or a TA). There are many creative options, whether the course is synchronous, asynchronous, or a mix of the two.

Teaching *in–person?* At the least, use the microphone. While you may have strong voice that projects well or the room may be small, many people will still struggle to hear you when you turn or move. The microphone is a simple tool that can make a big difference. Have a guest speaker? Be your students' best advocate by insisting the guest use the mic, too. You could also use the same principles as teaching online (e.g., enabling transcription), either through a tech-enabled classroom or running a simultaneous Zoom/Teams session.

Teaching *bimodally*? The same principles apply. You can also ask that students in class connect online, so that everyone is connected together. Students should either use a microphone when participating or their comments/questions should be repeated. Consider how any in-person demonstrations will be visible to those online.

In any mode of instruction, you can do a test run before the courses starts with student volunteers or colleagues to make sure everything will work as intended.

Use inclusive language

There are many ways to address a group! Addresses such as "guys" have a male slant even though many intend the greeting to be casual and inclusive. Check out some of the ones in the graphic below. [Make our own to replace or remove kids, niblings, kitkats, kiddos, with ___great alternatives___; cite @scott_classroom, @sara_levine, and @themilajam].

Alexandra Scott
@scott_classroom

Today is Transgender Day of Remembrance and as we remember the victims of transphobic violence, let's not forget how simple it is to make everyone feel included. I've always disliked "boys and girls" as a way to address my class, here are more inclusive ways to address your group

Did you know? Professors' beliefs about learning have been correlated with students' achievement (Canning et al., 2019). In that study, STEM faculty who believe ability was fixed (e.g., you're either a math person or you're not) had larger racial achievement gaps and inspired less student motivation in their classes that faculty who believe ability is malleable (i.e., a growth mindset).

Want to help your students develop their learning skills, including a growth mindset? Check out the Growth & Goals module, an open education resource that can be integrated in courses (and imported directly into an LMS).

Flexibility in ways to participate

Flexibility comes in many forms and can offer advantages in terms of accommodations, motivation, and academic resilience.

Assessments: approaches include flexible grading schemes (e.g., using a range of weightings), dropping the lowest quiz score, optional assignments, and options for submission formats (e.g., presentation, infographic, essay, video).

When participation is graded in the course, allowing students to miss a given number of classes without having to provide a reason makes it easier for them to manage other life events (e.g., busy week at school, illness, side effects from a new medication, death in the family, part-time job).

How can students participate in your course? A student response system can be used for students and instructors to gauge understanding and progress toward the intended learning outcomes (e.g., Mentimeter, Wooclap). Other ways work, too: ask for answers through the chat or annotating the screen directly (we like to "hide names of annotators" to keep things pseudo-anonymouse, but it's up to you). There may also be many opportunities where group work is advantageous; consider explaining to students *how* to work in a group, including assigning a facilitator and what that person's role should be.

Chat spaces (e.g., Discord, Slack) offer other ways to connect and communicate ideas. These platforms can be used synchronously (e.g., during class time) or asynchronously.

Looking to break the ice? Have a screen ready when students arrive with a survey, icebreaker questions, or other activities. Consider asking for a student or TA to act as ambassador to host these activities and be an ear for student feedback.

Have a quiet room or a concept that's tough for students? One way to get ideas flowing is to ask for wrong answers only–and watch the creativity fly!

Learn more

- Creating accessible Office documents – https://support.microsoft.com/en-us/office/create-accessible-office-documents-868ecfcd-4f00-4224-b881-a65537a7c155
- Bol, Linda, et al. "A Comparison of Academic Outcomes in Courses Taught With Open Educational Resources and Publisher Content." Educational Researcher, 2021, p. 13189–, https://doi.org/10.3102/0013189X211052563.

- Universal Design for Inclusive Science
- Dolmage, J.T. (2017). Academic Ableism: Disability and Higher Education. Ann Arbor: University of Michigan Press., doi:10.1353/book.57058.

- Online Resources: From Academic Ableism: Disability and Higher Education by Jay Timothy Dolmage

- What Physics Instructors Might Do to Support Immunosuppressed Students in the Return to In-Person Instruction: Thoughts from one chronically ill and immunosuppressed physicist.
- Accessibility checklist for alternative assessments

- Enhancing Accessibility in Post-Secondary Education Institutions
- Accessible Syllabus
- https://sites.lsa.umich.edu/inclusive-teaching/inventory-of-inclusive-teaching-strategies/

5. Other Course Elements: Student/office hours, tutorials

In this section: Identify ways to make office hours and tutorial sessions (e.g., discussion groups) more inclusive.

Student/Office hours

Having a flexible way for students to meet with you can be more inclusive for students in a few ways:

- Make it less daunting to meet with you (indeed, students may be quite apprehensive about approaching you)
  - E.g., **hold student hours right after a class**, and in the same space. Students are already there and can see how other's ask questions
- Make access easier
  - E.g., Holding all/some student hours online can make access easier for some. A trip to campus or to the professor's office can be challenging if they are also working, have classes across campus, or have mobility issues.
- Clarify the purpose
  - E.g., A name change to "Student hours" (or other names!) changes the focus to indicate the students are the priority during that time. You can also describe the purpose of student hours (e.g., in the syllabus, in class). Many students don't know what the time is for or what they can ask about.
  - Some professors give a theme to their office hours, especially early in the term. These could include: how to learn effectively in this course, for example.
- Build rapport
  - E.g., When holding student hours in person or online, consider taking some time to get to know the students themselves. Many students are also interested in research or your career decisions and would be happy to hear more.
- Virtual student/office hours
  - Even in-person classes can benefit from the flexibility of virtual hours or other options. [graphic of people who can benefit from virtual options: working job, diff. campus, disabilities]
- Give the option to schedule a time to meet with you, either through email, a scheduling app (e.g., Calendly), or other means

Tutorial sessions

Running tutorials follows the same principles as classes, with the added advantage of smaller groups (usually). You can support teaching assistants' training by:

- Encouraging TAs to attend training (including using TAs' contract hours for this purpose)
- Sharing a Guide for Teaching Assistants and other resources

- Communicating and modelling your own expectations

6. Assessments

Designing inclusive assessments

Designing any assessment should consider (1) the intended **learning outcomes** (LOs), (2) what evidence would be needed to demonstrate that a learner has achieved that intended LO, and (3) what approaches would allow students to provide that evidence. Assessments include all of the ongoing activities in the course that show the learner and you the learner's progress toward the course's intended learning outcomes, which can include **formative** (for learning) and summative (for learning and graded) assessments.

Assessments can take many forms, including essays, projects, and exams; further, assessm**summative**ent requirements can range from authentic assessments (e.g., a learner demonstrating their ability in a co-op or experiential learning setting, a project that closely mimics or is actually used in a professional setting) to more traditional tests of knowledge (e.g., multiple choice).

Remember that some students will have approved academic accommodations, discussed in the chapter on academic accommodations.

With many options to make assessments more inclusive, consider what approaches may be workable in your own course. For example:

- Automatically dropping the lowest in a series of quizzes relieves pressure if students have a bad period (e.g., mental health, illness, family member's death).
- Giving options to re-submit work, which additionally supports and promotes learning
- Let students know that they can approach/email you if something is hindering their ability to complete an assessment on time (e.g., add that information to the syllabus, send an announcement).
- Design assessments that students can do using a choice different methods, which engages with their interests and gives them greater agency (e.g., a final report that could be completed in the form of a video, essay, infographic).
- Co-creating the assessment and/or grading expectations
- Asking students to suggest questions for an exam

Other ways to build opportunities for students to successfully achieve the intended learning outcomes:

- Clearly communicate the expectations for each assessment, including academic integrity expectations
    - E.g., provide a rubric (or marking scheme), give examples of past work
    - E.g., specify whether the assessment is to be done individually or in groups (size?), whether it's open book (any book? any website?)
- Provide low stakes or practice assessments
- Create feedback opportunities (e.g., from you, current classmates, senior students)

In our eBook on Remote Teaching, we describe further considerations for **assessment and academic integrity**, particular for an online environment.

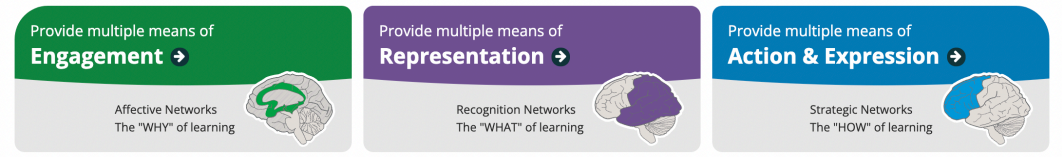
Read more

- *Ungrading: Why Rating Students Undermines Learning (and What to Do Instead) | West Virginia University Press*. (n.d.). Retrieved November 12, 2021, from wvupressonline.com/ungrading.
- Preparing for assessments other than in-person exams, from the University of Waterloo.

7. Designing a Course from Scratch

When we created this resource, we assumed that most of us are trying to make existing courses more inclusive. You have a unique opportunity if you are designing a new course, workshop, program, etc. from the ground up. In doing so, you'll be able to carefully align the course's intended learning outcomes with the other course components (e.g., explanations/lectures, assessments) and to purposefully build in principles of inclusion as you go.

One well-known framework for such a course design is University Design for Learning (UDL). These guidelines "offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities." Start small or go all-in.



Three-part framework of the Universal Design for Learning.

We strongly encourage you to work with a member of your Teaching and Learning Support Service (Centre for University Teaching) as you plan the learning. They have expertise in instructional design, UDL, and other aspects of course design (e.g., graphics).

8. Notes and Themes to Be Sorted Later

As we try new things in inclusive education, we will inevitably misstep. Like anything new that we try, we will fumble, mis-speak, get it wrong, and maybe even (unintentionally!) cause hurt. As a community, the best we can do is encourage people in their efforts, kindly suggest alternatives, and thank them for taking the time, effort, and emotional space to try (we recognize and respect that those being discriminated against face enormous barriers that also take time, effort, and emotional space).

Everyone has to do certain things to meet the basic standards of their institution. (e.g. read statement on sexual harassment). These actions represent the minimum standard we must each meet, by definition, the least we can do. This book is intended to make it easier to go far beyond the minimum, and to lay out strategies that can help.

Add sections to each chapters for “Next steps” or “Going further”

One of the the challenges intrinsic to learning is that classrooms and teaching labs are Classrooms and teaching labs are inequitable by default, which is not something that educators recognize intuitively.

Terminology: using the federal framework for designated groups to make alignment with national policies easier to see.

What are the problems students experience in classes where inclusion is not built in convincingly? – physical disabilities for one, even just accessing a room, cultural reference points can be difficult when

perfection vs progress

OK to make mistakes – intention matters. Everyone stumbles or misspeaks sometimes. Avoiding the issue is not

-inclusion can be fun.

-inclusion by default rather than initiated on the basis of traditional thinking, then patching stuff on top of that. The difference this creates is important: performative vs substantive.

- Anticipate that students will have undisclosed disabilities and face a multitude of barriers
- Find ways that you can be flexible without compromising high standards or the learning outcomes

Graduate students and postdoctoral researchers: chapter for them?

Working on ourselves:

- TLSS website on inclusive teaching
- Webinars and workshops

Sexual identity explained.