



Universal Design for Learning



Universal design for learning (UDL) is a framework developed by CAST (udlguidelines.cast.org) to guide educators to support and promote a more inclusive and accessible learning environment for all students. UDL helps to reduce barriers in the learning environment and ensure that all students have the accommodations and supports they need to access and participate in their learning. It fosters a flexible learning environment in which information is presented in multiple ways, and students engage in learning and demonstrate their learning in a variety of ways.

UDL guidelines

Design multiple means of representation

Provide students with various ways to access information and content. This includes:

- Offering and presenting information in different formats and modes (e.g., text, audio, visuals)
- Providing options for language, symbols and comprehension (e.g., clarifying vocabulary, providing background knowledge)

Design multiple means of action and expression

Allow students to demonstrate what they know in different ways. This includes providing options for:

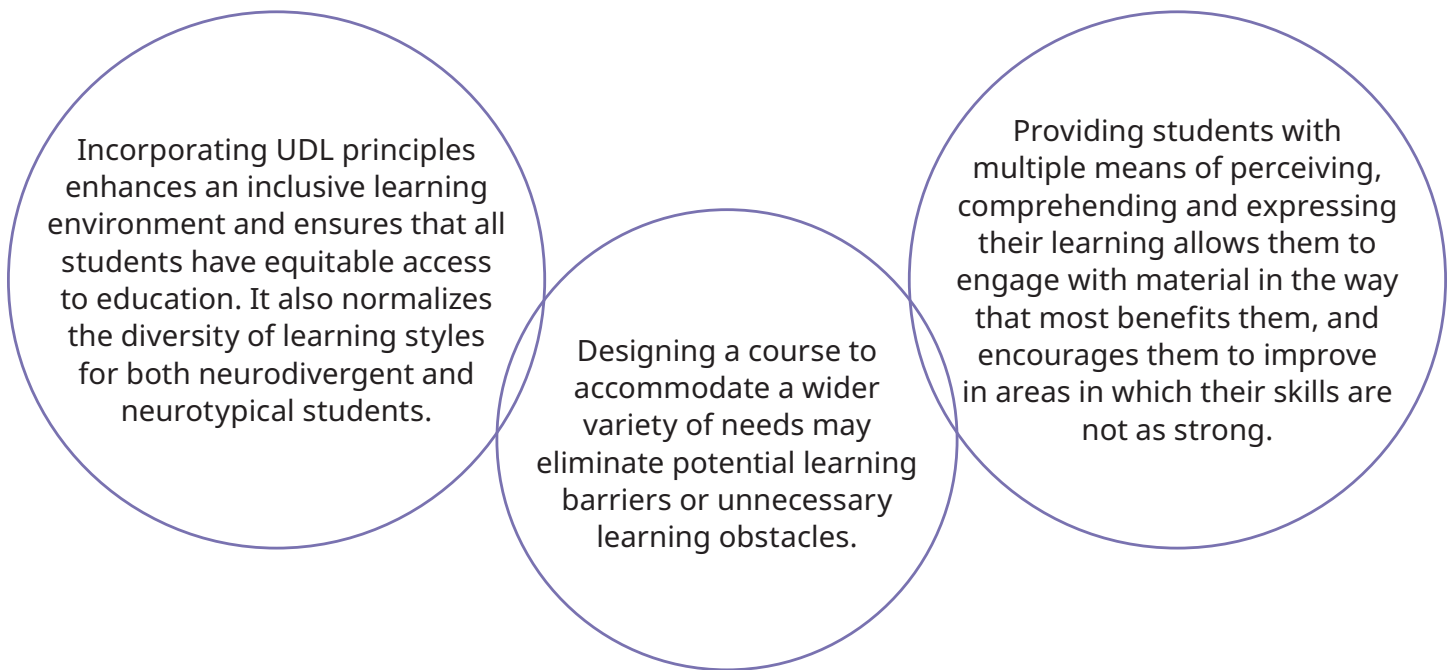
- Students to express themselves through writing, speech, art or other forms of communication
- Physical activity and for building executive function skills (e.g., providing access to assistive technology, guiding goal setting, progress monitoring)

Design multiple means of engagement

Provide students with various ways to engage with content, activities and assessments. This includes:

- Offering choices in the way they approach and interact with learning materials (e.g., offering the choice of working in groups, pairs or alone, providing low-risk practice assessments)
- Creating opportunities for motivation and self-reflection (e.g., using self-assessment checklists or reflection journals; connecting lessons with lived experience, interests, culture and identities)

Benefits of UDL



Things to consider

Perception	Since students access information differently, use different ways to present information (e.g., using a PowerPoint presentation as a visual supplement to a lesson).
Expression	Since students vary in their ability to demonstrate their learning, provide flexible and alternative ways to allow them to express their knowledge or demonstrate their skills (e.g., giving them a choice between writing a final exam or submitting a final assignment).
Comprehension	Since students vary in their motivation to learn and in the types of learning activities that keep them engaged, provide various ways for them to engage in learning (e.g., engaging students in both group and individual activities, rather than one or the other).



Strategies that support UDL

By incorporating strategies that include a variety of classroom setups, lesson plans and teaching methods, educators and schools can support and challenge all their students, including students who are neurodivergent.

Classroom setups

- ⚙️ Here are some strategies for creating a supportive classroom environment that will help neurodivergent students stay engaged:
 - Provide opportunities for sensory deprivation—Some students, especially those with autism, may require sensory deprivation to focus and to avoid being overwhelmed with sensory input. Offer access to noise-cancelling headphones or quiet sections of the classroom equipped with pillows and blankets (including weighted blankets). Dim lights and minimal sound can also be helpful.
 - Provide opportunities for sensory input—Other students may need higher levels of sensory input to regulate and maintain optimal arousal for focus and learning. Learning stations with plenty of sensory opportunities can be helpful for these students.
 - Offer alternative seating options—Some students find it difficult to sit still for long periods or find sitting in traditional chairs difficult because of sensory sensitivities. Classrooms that offer alternative seating options, such as standing desks, wobble chairs and ergonomic stools, are beneficial to everyone. Allowing students to walk around intermittently can also help promote engagement.
 - Allow students to listen to music—For some students, listening to music can enhance focus during tasks. If playing music for the whole classroom is not an option, students can listen to music through headphones while doing independent work.

Lesson plans

- ⚙️ Planning ahead can be key to helping all students thrive in the classroom. Here are some instructional strategies that support inclusive education:
 - Use varied instructional formats—Switching things up to include whole-class instruction, paired learning, small groups, student demonstrations, peer tutoring, and learning stations gives every student an access point to learning.
 - Incorporate different modalities, accommodations and experiences— Some students learn best when working with manipulatives, images or models. Others may need accommodations such as headphones, calculators or large-print text, and still others may need assistance with the physical act of writing or may just need a little extra time. Plan your lessons to have as many universal adaptations available as possible.
 - Make lessons active—Many students don't learn well when they have to sit in one place for a long time. Design kinesthetic lessons to get students moving.

Teaching methods

- ⚙️ Designing your teaching methods around the diverse needs in your classroom will help to ensure that all learners can access and participate fully in their education. Here are some teaching methods to consider:
 - Communicate clear learning outcomes or objectives for learning activities—Be transparent in your expectations and support students' creation of personal learning goals.
 - Reduce emphasis on time—Some students become anxious when facing deadlines and time pressure. Stay flexible regarding how long activities should take, offering extra time or adapting expectations and directions for those who need it.
 - Present instructions in various ways—To accommodate various learning types, offer instructions in written, visual and oral form, and follow up with students to make sure they've understood.
 - Allow for physical movement—Many students need to keep their bodies moving if their minds are to focus well. Allow movement during individual work and encourage students to get up from their desks regularly.
 - Identify students' strengths—Recognize individual talents, whether in problem-solving, creativity, attention to detail, or other areas.
 - Bring mindfulness into the classroom—Lead breathing, relaxation and mindfulness exercises to help *all* students prepare their minds and bodies for learning.
 - Focus on students' interests—All students become more engaged when they can incorporate their personal interests into their schoolwork. Pay attention to students' favourite TV shows, books, video games, hobbies, sports and movies, and design lessons that can feature them.
 - Incorporate support for executive function—Many neurodivergent students, particularly those with ADHD, face challenges when planning projects or dealing with time management. Provide tools like step charts, checklists, visual prompts and calendars to help them develop these skills.
 - Support access to technology—Make sure students have access to the technology supports they need to participate in the learning activity and environment, including word processors and augmentative and alternative communication (AAC) and other assistive technologies.

Reflection questions

When using any of these strategies, as with any teaching strategy, reflect on how it went. Did it work for you? For your students? Were students able to attain the course learning outcomes? Make necessary adjustments accordingly.

- What current course activities, methods of instruction, and assignments are working well? What is your teaching style and what are your students' learning modalities? Ask yourself which students would likely do well in your class, and which students might struggle.
- Could you offer more flexibility in the way you present content, the way students engage in learning in your classroom, and the way they are assessed?