GUIDE TO **UNIVERSAL DESIGN FOR LEARNING** IN

EDUCATION

Transforming Lives and Enriching Futures Through Lifelong Learning

CTE TECHNICAL ASSISTANCE CENTER OF NY

ABOUT THIS GUIDE

Universal Design for Learning (UDL) is a framework for designing learning experiences that are inclusive, accessible, and engaging for all students. UDL is not a checklist of required practices, but a mindset of continuous improvement. By increasing flexibility and options, UDL helps teachers proactively remove barriers, meet students where they are, and provide everyone with an equal opportunity to learn.

This document is part of a series that illustrates how UDL principles can be applied in each of Advance CTE's 14 career clusters. The series extends and tailors the tips provided in two prior publications, Supporting All Students in New York State CTE Programs [PDF] and Supporting Special Populations in New York State CTE Programs [PDF], available on the CTE TAC's website.

Photo: Orange-Ulster BOCES

With its emphasis on relevant, authentic, hands-on learning, UDL is a natural fit for CTE classrooms!

5 REASONS WHY UDL WORKS FOR CTE EDUCATION

1. UDL **aligns with the focus on equity and access in education**. UDL helps to ensure all students have the opportunity to succeed in CTE programs and pathways.
2. UDL raises **awareness of learner diversity** and **models inclusive practices**, preparing future educators to meet the needs of students with different backgrounds, identities, and abilities.
3. **Authentic, hands-on learning** allows students to apply their knowledge and skills to real-world scenarios, helping them become career-ready.
4. UDL **fosters a growth mindset** by normalizing challenges and encouraging creative problem-solving.
5. By attending to the emotional needs of learners, UDL nurtures the **empathy, communication, and interpersonal skills** future educators need for success in the classroom.

QUICK REFERENCE GUIDE TO UDL FOR CTE

Universal Design is the process of creating objects, environments, and experiences that can be accessed, understood, and used to the greatest extent possible by people with a wide range of abilities, needs, and characteristics. Universal Design for Learning (UDL) applies the concept of Universal Design to learning contexts.

UNIVERSAL: UDL is a framework for **creating learning experiences that work for *everyone***. Proactively identifying and removing barriers to learning creates a more inclusive environment where all students have equitable opportunities to learn.

DESIGN: There is no one approach to learning that is optimal for every student in every situation. The UDL principles guide teachers to **plan for learner variability by offering flexibility and options**.

FOR LEARNING: Rather than a one-size-fits-all approach, **UDL empowers students to tailor the learning experience** for their individual needs, goals, and preferences. By discovering how they learn best, students develop into self-directed, resourceful, and skillful learners.

THE UDL PRINCIPLES*

	ENGAGEMENT	REPRESENTATION	ACTION & EXPRESSION
What is it?	The **WHY** of learning	The **WHAT** of learning	The **HOW** of learning
Why is it important?	Students differ in **what interests them** and **what motivates them to learn**.	Students differ in how they **perceive and make meaning from information**.	Students differ in how they **navigate learning environments and express what they know**.
What does it look like in practice?	Students engage in authentic, hands-on learning. Learning is relevant to students' identities, personal interests, and career goals. Students collaborate, co-create, and build community with peers. Students feel safe, included, and welcome. Fun and creativity are encouraged.	Course materials are accessible for all learners. Multiple media are used to present information. Language and symbols are clarified and decoded. The curriculum and course materials represent diverse individuals and perspectives. Learning is structured to help students build knowledge.	Learning activities and assessments are accessible for all learners. Students are guided to organize information, manage time, set goals, and plan their learning. Students communicate and express themselves in different ways. Students participate in class activities and demonstrate their learning in different ways.

** Abridged and adapted from the CAST UDL Guidelines.*

SAMPLE LESSON

Let's look at a sample lesson to see how the general principles described on page 2 can be applied in a CTE classroom.

Examples abridged and adapted from the lesson "Core Characteristics and Abilities of an Effective Teacher" by Texas Education Agency/Texas CTE: https://ctetac.us/edlesson

Key to abbreviations:
R = Representation, **A = Action & Expression**, **E = Engagement**

Photo: Nassau BOCES

ELEMENT	WHY DOES IT WORK?	GO FURTHER WITH UDL
Learning goals Students will identify the personal characteristics and abilities needed by effective teachers and discuss how to implement them in the classroom.	Allows teachers to envision multiple ways students can achieve and demonstrate learning **(A)**.	Share the learning objectives for each lesson with students to **set expectations and short-term goals (A)**. Identify the academic, Common Career Technical Core, and cluster-specific industry standards to **illustrate the lesson's relevance** to students' career goals **(E)**.
Bell-ringer/warm-up activity List five characteristics of an effective teacher, to be compiled into a comprehensive class list.	Focuses attention and sparks curiosity **(E)**. Employs collaborative learning **(E)**. Provides insight into students' prior knowledge and misconceptions to inform teaching **(R)**.	Collect responses using a poll, survey, or collaborative document to **increase interactivity (A)** and **introduce students to educational technologies (E)**. Worksheet helps **keep students on task** and **organize their responses (A)**.
Lesson-specific **vocabulary terms**	Supports comprehension and provides essential background knowledge **(R)**. Proactively addresses language barriers **(R)**.	Play a vocabulary game to **assess students' prior knowledge (R)** and **make learning fun (E)**. Display terms and definitions on a "word wall" or slide to **support language acquisition (R)**. Provide terms and definitions in a handout students can **reference during activities or use to review (A)**.

ELEMENT	WHY DOES IT WORK?	GO FURTHER WITH UDL
Lecture: "Core Characteristics, and Abilities of an Effective Teacher"	Embedded videos present information using multiple media **(R)**. Graphic organizer (KWL Chart) and notes template provide a structure for recording notes, questions, and reflections **(A)**.	**Provide alternative formats (R)** such as closed captions or audio transcripts for videos to **ensure content is accessible to all students (A)**. Share slides in digital format so all students can **preview or review the content (A)** and **customize the display of information (R)**. **Promote active learning** by guiding students to glean information from resources or research as an alternative or supplement to the lecture **(E)**.
Small-group activity: "No More Classroom Chaos" scenarios Groups rewrite scenarios to apply effective teaching practices.	Scenario-based learning is authentic and relevant to real-world contexts **(E)**. Application supports knowledge transfer and generalization **(R)**. Exploring complex challenges with more than one "right" answer develops problem-solving and critical thinking skills **(A)**.	Sharing small-group work with the full class **amplifies collaborative learning (E)**. **Model the process** by working through one scenario as a class before breaking into small groups **(A)**. Allow groups to **propose their own scenarios** or **choose scenarios of interest** versus randomly assigning them **(E)**. Provide scenarios in advance so students can **read and process them at their own pace and use assistive technology if needed (A)**.
Independent practice Students create a multimedia presentation that identifies ten personal characteristics of an effective teacher and describes how they will apply them in their future classroom.	Content and tasks are relevant to education students' personal and career interests **(E)**. Students choose their topics **(E)**. Engages multiple modes of communication and expression, including writing, visuals, and oral presentation **(A)**.	The lesson plan suggests a storyboard as an **alternative assignment format** for students with limited access to technology **(A)**. Assessment rubric **clarifies assignment requirements (R)**, **supports planning and strategy development (A)**, and **facilitates self-assessment (A)**. Guide students to **implement UDL practices in the design of their presentations** to raise awareness and enhance their teaching skills! **(E)**
Closure Students respond to discussion questions, complete their KWL Chart, and reflect on what they learned.	Helps students articulate the "big idea" **(R)**. Reflection engages metacognitive skills **(A)**. Prepares students to transition to their next class or activity **(A)**.	Have students submit KWL charts as "exit tickets," which can be reviewed to **identify learning gaps (R)**. Facilitate discussion as a poll or quiz to **increase interactivity (E)**, **provide an alternative to oral participation (A)**, and **encourage participation (E)**.

TRY-IT ACTIVITY 1

Apply the framework above to a supplemental activity of your choice. Identify examples of UDL principle(s) and/or practices the activity addresses and propose two or three ways you could adapt the activity to go even further with UDL. Refer to the **UDL Principles** in the **Quick Reference Guide** on *page 2* for ideas.

EXTENSION ACTIVITY (CHOOSE 1)	UDL PRINCIPLES/PRACTICES ADDRESSED	WAYS TO GO FURTHER WITH UDL
Analyze a relevant news article or current event Written entry in a course journal 90-second speech Service learning project Guest speaker CTSO or industry competition Other: *See the lesson for information about all suggested extension activities.		

TRY-IT ACTIVITY 2

How could you make the lesson and/or extension activity more meaningful for the students in your CTE Education course by:

Tip: Refer to the table on page 6 for information on student demographics and special populations within CTE and CTE Education in New York State.

Ensuring students see images and examples of people like themselves working in education?

Addressing specific barriers they might encounter (e.g., disabilities, access to resources, language skills)?

Making the lesson or activity more relevant to their identities, interests, local context, and/or career goals?

WHO ARE OUR STUDENTS IN CTE EDUCATION?

POPULATION	All U.S. CTE	All NYS CTE	NYS CTE EDUCATION & TRAINING
Female	46.7%	42.6%	**47.4%**
Nonbinary	*no data*	0.1%	***no data***
Students of Color	51.0%	59.0%	**63.0%**
American Indian or Alaskan Native	*0.9%*	*0.8%*	***1.2%***
Asian	*4.6%*	*12.3%*	***17.2%***
Black or African American	*13.1%*	*13.9%*	***15.5%***
Hispanic/Latino	*28.0%*	*29.4%*	***26.2%***
Native Hawaiian or Other Pacific Islander	*0.4%*	*0.3%*	***0.1%***
Two or More Races	*4.0%*	*2.3%*	***2.8%***
Individuals from Economically Disadvantaged Families	45.3%	59.7%	**61.6%**
Individuals Preparing for Nontraditional Fields	24.3%	18.0%	**5.0%**
Individuals With Disabilities (ESEA/IDEA)	10.7%	18.6%	**18.6%**
Homeless Individuals	1.4%	3.5%	**2.6%**
English Learners	5.4%	3.5%	**4.8%**
Youth in Foster Care	0.2%	0.2%	**0.0%**
Youth With Parent in Active Military	1.0%	0.3%	**0.1%**
Migrant Students	0.3%	0.02%	**0.0%**

Sources: PCRN National Enrollment Profile, 2021-22; NYSED Enrollment Data, Secondary CTE Concentrators, 2022-23

GUIDED APPLICATION
GETTING STARTED WITH UDL IN CTE

Implementing UDL doesn't require special pedagogy or training. In fact, you're probably using UDL principles in your teaching without even knowing it! Here are a few ways you can build upon the good teaching you already do.

Complete a printed worksheet by hand or populate a digital copy to share with your principal, consultant teachers, or others who can support your UDL journey. If you share the sheet, don't forget to fill in your information below!

My name:

My CTE program(s) or course(s):

STRATEGY 1: IDENTIFY OPPORTUNITIES

For ***each*** of the three UDL principles, list one or two examples of strategies you're not currently using in your teaching, but you'd like to learn about or try. Indicate any resources, information, or support you need in order to be successful.

Refer to the **UDL Principles** in the **Quick Reference Guide** on page 2 for ideas.

ENGAGEMENT	REPRESENTATION	ACTION & EXPRESSION
[Example: I want to use polls or games to introduce lessons]	*[Example: I want to learn how to enable auto-captions in Google Slides]*	*[Example: I want to create graphic organizers to help students take notes]*
Resources required:	**Resources required:**	**Resources required:**

Remember that UDL is not a checklist! You don't need to implement every practice to have a positive impact. Start with one or two small changes. See how they work for you and your students before adding others.

STRATEGY 2: THE PLUS ONE (+1) APPROACH

Plus one (+1) means adding one option to each resource, activity, or assignment in a lesson or course, as appropriate. Start with options that require a minimal investment of your time and effort to build your momentum.

Choose a specific lesson or learning activity from your course. List each element of the lesson or activity, then propose a +1 for each element. Identify which UDL principle your +1 reflects and briefly explain how that principle is reflected.

Photo: Nontraditional Employment & Training (NET) Program

Tip: Refer to the examples in the row What Does It Look Like in Practice? in the table on page 2 to help you explain how your +1 represents one or more UDL principles.

For example:

- Add a short video to a traditional lecture for **multiple means of representation**.
  Bonus: *Make sure the video you select has captions or a transcript to double your impact!*
- Allow students to submit a video, podcast, infographic, or other creative product instead of a written essay, lab report, or research paper to provide **multiple means of action and expression**. Or, offer a choice of a multiple-choice quiz or an open-ended essay question to check students' comprehension.
  Bonus: *Foster critical thinking by inviting students to co-create assignment guidelines and grading criteria, propose quiz questions, and/or participate in peer assessment activities.*
- Offer **multiple means of engagement** by allowing students to choose whether to complete some learning activities individually or in teams. Or, let them choose their own topics and/or formats for assignments.
  Bonus: *Permitting a choice of formats is a UDL double-dip of boosting engagement AND providing options for action and expression!*

Lesson or activity title/topic:

WHAT YOU DO NOW	YOUR +1	WHICH UDL PRINCIPLE(S) DOES YOUR +1 REFLECT? HOW?