

# Universal Design for Learning: Meeting the Needs of All Students

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## **Learning Goals**

After successfully completing this workshop you will be able to:

- Address the variability in learning in a classroom
- Learn and apply the principles of UDL to the design of lessons, instructional methods, assessments and curriculum units
- Build a toolkit to better meet the needs of all students in your classroom

## **Workshop Outline**

- I. Overview of Universal Design for Learning (UDL)
- II. UDL Principle 1: Representation
- III. UDL Principle 2: Engagement
- IV. UDL Principle 3: Expression
- V. Implementing UDL in Your Classroom

*Adapted from CAST (2011). Universal design for learning guidelines version 2.0. Wakefield, MA: Author*

## **UDL Principle #1 Multiple Means of Representation**

**Do you create a learning environment in which....  
material and content are presented in a variety of ways?**

<b>What you can do</b>	<b>Ideas</b>	<b>Resources</b>
Ensure your course outline clearly describes the content and your expectations of the students.	Use your outline as an advance organizer or study guide to go over expectations for the following week i.e. readings, focus questions, videos to watch etc.	<a href="#">Advance organizers</a>  <a href="#">Sample Jumpstart UDL lesson plans</a>
Present information in multiple formats (e.g., lecture, text, graphics, audio, video, hands-on exercises).	Add an audio file explaining a major assignment (using <a href="#">Jing</a> (free))	<a href="#">A Graphic Syllabus Can Bring Clarity to Course Structure</a>  <a href="#">UDL Biology Model</a>
Begin each lecture with an outline of what will be covered.	Start every class with an agenda so students know what to expect during class.	
Summarize key points throughout the lecture, and tie these points to the larger course objectives.	Use an active learning activity such as a game or review questions to review the key points of your lesson.	<a href="#">Active Learning Videos</a>
Post electronic equivalents of paper handouts and required reading assignments in alternative formats such as audio and video.	Post all course documents on Sakai so students can access them whenever needed.	<a href="#">Caption YouTube</a>  <a href="#">Accessible Document Creation</a>

## UDL Principle #2

### Multiple Means of Expression

**Do you create a learning environment in which...  
students can express their comprehension in multiple ways?**

What you can do	Ideas	Resources
Use a variety of evaluation methodologies to allow students to express what they know in multiple ways.	Example: Introductory Biology may include quizzes, case studies, model building, and an oral presentation rather than just traditional tests and a final exam.	<a href="#">A Role for Choice in Student Assignments</a>
<p>Give students choice in evaluation methodologies to demonstrate their learning.</p> <p>Give students options to demonstrate mastery of the course learning outcomes.</p>	<p>Give students the opportunity to choose which type of assignment they would like to complete.</p> <p>Example: Students may choose one of the following project formats: a poster presentation, research report or creating a video.</p>	<a href="#">Multiple Means of Expression Assignment Samples</a>
Incorporate technologies that facilitate class communication and participation.	<p>Use discussion boards or blogs to allow students who need more time to reflect on a topic.</p> <p>Use “clickers” to allow all students to participate without feeling “called out”</p>	<a href="#">Poll everywhere</a>

## UDL Principle #3

### Multiple Means of Engagement

**Do you create a learning environment in which...  
learners are challenged, excited and motivated about what they are learning?**

What you can do	Ideas	Resources
Challenge students with meaningful, “real world” assignments.	Create evaluations that are performance based and allow students to demonstrate the learning outcomes.	<a href="#">UDL Assessment and Evaluation ideas</a>
Create a class climate in which student diversity is respected.	At the beginning of the semester, have students generate a list of “ground rules” for classroom conduct.  Be sure to post the agreed upon list on Sakai and refer to it when necessary in class.	<a href="#">Establishing Ground Rules</a>
Give prompt and instructive feedback on assignments.	Post grades on Sakai on a regular basis.  Allow students to hand in a “rough draft” of a paper or assignment.	<a href="#">Sakai help</a>
Supplement lecture and reading assignments with visual aids (e.g., photographs, videos, diagrams, interactive simulations).	Provide students with a list of questions to answer when reading.  Have students watch a video on the topic as well as reading the chapter.	<a href="#">Sample Advance Organizers</a>
Make yourself available to students during office hours in flexible formats	Have different types of “office hours” – example: Face to face office times, telephone, and virtual office hours (Google Hangouts/Meet, Skype, Zoom).	
Provide tasks that allow for active participation, exploration and experimentation.	Use a variety of active learning strategies to engage learners in your classroom. See the CAFE website for examples or book an appointment with Kaneb Center	<a href="#">Active Learning Videos</a>

# Universal Design for Learning Guidelines

## I. Representation

Use multiple means of representation

1. Provide options for perception
  - Options that customize the display of information
  - Options that provide alternatives for auditory information
  - Options that provide alternatives for visual information
2. Provide options for language and symbols
  - Options that define vocabulary and symbols
  - Options that clarify syntax and structure
  - Options for decoding text or mathematical notation
  - Options that promote cross-linguistic understanding
  - Options that illustrate key concepts non-linguistically
3. Provide options for comprehension
  - Options that provide or activate background knowledge
  - Options that highlight critical features, big ideas, and relationships
  - Options that guide information processing
  - Options that support memory and transfer

## II. Expression

Use multiple means of expression

4. Provide options for physical action
  - Options in the mode of physical response
  - Options in the means of navigation
  - Options for accessing tools and assistive technologies
5. Provide options for expressive skills and fluency
  - Options in the media for communication
  - Options in the tools for composition and problem solving
  - Options in the scaffolds for practice and performance
6. Provide options for executive functions
  - Options that guide effective goal-setting
  - Options that support planning and strategy development
  - Options that facilitate managing information and resources
  - Options that enhance capacity for monitoring progress

## III. Engagement

Use multiple means of engagement

7. Provide options for recruiting interest
  - Options that increase individual choice and autonomy
  - Options that enhance relevance, value, and authenticity
  - Options that reduce threats and distractions
8. Provide options for sustaining effort and persistence
  - Options that heighten salience of goals and objectives
  - Options that vary levels of challenge and support
  - Options that foster collaboration and communication
  - Options that increase mastery-oriented feedback
9. Provide options for self-regulation
  - Options that guide personal goal-setting and expectations
  - Options that scaffold coping skills and strategies
  - Options that develop self-assessment and reflection

CAST (2011). *Universal design for learning guidelines version 2.0*. Wakefield, MA: Author.

## Collecting Student Profiles

How do you like to learn?

1. Do you like quiet or noise (music, TV...) when you study?

Quiet Noise

2. If you are not able to complete something, is it because

You forgot? It's boring? You got distracted? You need help?

4. Where do you like to sit in class?

Near the door? In the front? In the back? By a wall? By a window?

5. Do you like to work with a partner?

Why or why not?

6. When are you most alert?

In the afternoon? In the morning? In the evening?

7. What classes do you enjoy most and why?

8. Describe how you study.

Where, when, how ...

9. If you have an assignment due in two weeks, how do you plan to make sure it is completed on time?

10. If something is new to you, do you:

Like to have it explained? Like to read about it? Like to just try it? Like to watch a DVD/demonstration?

## **LEARNER SURVEY**

Directions: In each section, check the statements that apply to you. Leave the others blank.

### Section A

1. \_\_\_ If I need to spell a word correctly, I write it down to see if it "looks" right.
2. \_\_\_ I can remember names if I see them written on name tags.
3. \_\_\_ I enjoy reading books and looking at the pictures.
4. \_\_\_ I would prefer to read the directions or look at the illustrations before beginning a project.
5. \_\_\_ To remember what my instructor says in class, it helps me to take notes.
6. \_\_\_ I usually write down all of my assignments to help me remember them.
7. \_\_\_ A good way for me to practice vocabulary words would be to use flashcards.
8. \_\_\_ I like my desk and locker to be organized.
9. \_\_\_ I can sit still to watch TV or work on the computer for a long time.
10. \_\_\_ I understand things better when I read them than when I listen to them.
11. \_\_\_ I like for people to make a list of the tasks I need to do rather than just tell me.
12. \_\_\_ I can picture things easily in my mind.

### Section B

1. \_\_\_ If I hear someone's name, I remember it easily.
2. \_\_\_ I prefer to listen to a book on tape rather than read it myself.
3. \_\_\_ I can pay attention and remember easily when my instructor reads aloud to us.
4. \_\_\_ I use jingles and songs to help me memorize things.
5. \_\_\_ In reading, I can best remember a story if we have a class discussion about it.
6. \_\_\_ I remember songs after hearing them only a couple of times.
7. \_\_\_ I often read and study by repeating information aloud to myself.
8. \_\_\_ I am distracted by background noise (like pencil tapping) when I am taking a test.
9. \_\_\_ I like to study for tests by having someone quiz me aloud.
10. \_\_\_ I like to talk and listen.

## Section C

1. \_\_\_ It is hard for me to pay attention when I must sit still for a whole class period.
2. \_\_\_ I enjoy sports and being active.
3. \_\_\_ My favorite classes are those where I can move around a lot.
4. \_\_\_ I have a hard time staying neat and organized.
5. \_\_\_ I am good at skills like walking on a balance beam, serving a volleyball or playing ping-pong.
6. \_\_\_ I prefer to learn a new activity by being shown how to do it rather than reading about it or listening to a tape about it.
7. \_\_\_ I would like to act out stories rather than talk about them.
8. \_\_\_ I have a good sense of balance and rhythm.
9. \_\_\_ I can learn new dance steps or athletic skills after only trying them a few times.

TOTAL NUMBER OF CHECKS IN SECTION A

TOTAL NUMBER OF CHECKS IN SECTION B

TOTAL NUMBER OF CHECKS IN SECTION C A.

A. If your highest total is in section A, you are likely a **SEEING** learner. You remember best by using your eyes.

B. If your highest total is in section B, you are likely a **HEARING** learner. You remember best by using your ears.

C. If your highest total is in section C, you are likely a **DOING** learner. You need movement or activity while you study to remember best.

*Adapted from Pre-assessing Learning Profile, an Association for Supervision and Curriculum Development (ASCD) action tool, 2007*

The longest I can pay attention to a lecture before needing a break is 5 minutes.

The longest I can pay attention to a lecture before needing a break is 10 minutes.

The longest I can pay attention to a lecture before needing a break is 15 minutes.

The longest I can pay attention to a lecture before needing a break is 20 minutes.

The longest I can pay attention to a lecture before needing a break is 30 minutes or more.

It helps me to take notes when I listen to a lecture.

Taking notes distracts me from paying attention to a lecture.

Comments (things I do or the instructor can do to help me concentrate longer, exceptions, how strongly I feel about this, etc.):

When the instructor gives an assignment, I like to have exact steps for completing it.

When the instructor gives an assignment, I like to create my own steps for completing it.

When the instructor gives a long-term assignment, I need lots of check-in points-one per day or several per week.

When the instructor gives a long-term assignment, I need check-in points at least once per week.

When the instructor gives a long-term assignment, I need occasional check-in points-every couple of weeks.

When the instructor gives a long-term assignment, I don't need check-in points at all. I will get it done on my own.

Comments (exceptions, how strongly I feel about this, etc.):



## Postsecondary Examples of Universal Design for Learning (UDL)

- A math/statistics faculty member began providing handouts of overheads to the entire class so that students could use them for reference and review. He also began to deliver his lectures more carefully, by replacing general terms like "this" or "that" with more specific descriptions, by pausing where appropriate, and by making eye contact with his students.
- A composition faculty member began audio taping his class so students could review class discussion and the professor's instructions about completing assignments.
- A foreign language professor used puppet shows, role plays, velcro cards, and searches of computer web sites in the second language to make the instruction as multi-modal as possible.
- A psychology professor allowed students the choice of writing the final exam as a take-home or a 3-hour in-class final.
- A sociology professor revised her syllabus to specify the objectives more clearly, and added a research project in addition to the midterm and final exam in order to diversify the types of work that affected the final grade in the course.
- A geology professor developed computer animation modules to illustrate some of the key concepts in a course on physical hydrology. These are shown in class and available out of class as well.
- A computer science professor started to begin each class with a forecast of the key concepts to be discussed that day and why they are important in the course material (after students complained that they had no context for his lectures).
- A biology professor introduces new topics by asking all students to write a short essay on the topic, in class. Some students are better writers than talkers, and the professor finds that this practice leads to more universal participation in the subsequent class discussions.
- A biology professor began using two overhead projectors in his lectures so he can leave the old slide on the screen longer.

*Visit a library of Video Case Stories (exemplars) at: [www.udluniverse.com](http://www.udluniverse.com)*

## Notes