The Art of Universal Design

What is Universal Design?
Many important laws have been passed that require individuals with disabilities to have equal access. Some of the earliest laws, such as the Architectural Barriers Act of 1968, dealt primarily with the accessibility of buildings. As architects began planning ways to implement the new standards, they realized that having separate, “special” accessibility features was usually more expensive, less attractive, and more stigmatizing. They also realized that most of these accessibility features would be beneficial for everyone, not just those with disabilities, and that commonly providing those features would be less expensive, more attractive, and more marketable. This was the beginning of the universal design movement. The same principles were incorporated into education and became known as Universal Design for Learning (UDL).

The Higher Education Act of 2008 defines Universal Design for Learning as “a scientifically valid framework for guiding educational practices that:

(A) Provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and
(B) Reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.”

UDL is not a “one size fits all” solution. It is a flexible approach that can be adapted for individual needs.

The 3 Principles of Universal Design
Universal Design has 3 basic principles. Each of these principles relates to one of the brains primary networks (see table on page 2).

1. **Provide Multiple Means of Representation.** This deals with the “what” of learning and relates to the brain’s recognition networks. Not everyone takes in or understands information in the same way. Some students learn by seeing, some by hearing, others by doing, so it is important that information is presented in a variety of ways.

2. **Provide Multiple Means of Action & Expression.** This deals with the “how” of learning and relates to the brain’s recognition networks. Students have different ways of going about the learning process and expressing what they know. Some learners may be able to express themselves well in writing but not in speech, and vice versa. It is important to provide students with different ways to navigate their learning environment and to express what they learn.

3. **Provide Multiple Means of Engagement.** This deals with the “why” of learning and relates to the brain’s affective networks. Different students are motivated to engage in different ways. Some learners are interested by new and exciting presentations, while other learners need a strict routine. Some students might like to work alone, while others might like to work with their peers.

Each principle has guidelines that can be used as appropriate to overcome barriers in the curriculum. Each guideline also has checkpoints that can assist in implementation. For a complete list of guidelines and checkpoints for each principle, including a teacher’s checklist, visit www.udlcenter.org.

Universal Design Curriculum
Universal Design for Learning aims to address the ways in which curriculum, not students, can be “disabled.” Curriculum can be “disabled” in:

1. **WHO it can teach.** Curricula are often designed with an “average” student in mind, even though there is really no such thing. This can create particular problems for learners “in the margins,” such as those
who are gifted and talented, those with special needs or disabilities, or those who are English language learners.

2. **WHAT it can teach.** Curricula are often designed to teach specific information and concepts but fail to develop learning strategies. Learning strategies are skills learners need to understand, evaluate, put together, and turn information into usable knowledge.

3. **HOW it can teach.** Curricula often provide for very limited types of teaching. These can be difficult to differentiate for different kinds of learners and may leave out important aspects of teaching, such relating new skills to previous skills.

The goal of Universal Design for Learning curriculum is not just to teach concepts, but to help students become “expert learners.” Expert learners are:

- Strategic, skillful, and goal directed
- Knowledgeable, and
- Purposeful and motivated to learn more.

Universal Design curriculum keeps teachers from having to adapt curriculum for individual students “after the fact.” Instead, curriculum is designed from the beginning to adapt to the needs of all students through strategic goals, methods, materials, and assessment.

Technology is an important piece of UDL. While some students may require their own, individual assistive technology, such as a wheelchair or cochlear implant, technology in UDL curriculum is available to all students. For example, teachers may make use of text-reader or captioning programs to provide students with multiple means of representation.

**What can parents do?**

- Ask teachers if they are familiar with the concept of universal design for learning or if they use universal design curriculum in the classroom.
- See that related goals are incorporated into a student’s IEP so that he or she can learn the same content as their peers. For instance, discuss how members of the IEP or transition planning team can help general educators understand and implement these concepts in the classroom.
- Advocate with your local school board or state department of education for policies that require newly purchased textbooks and curricula to be fully accessible to students with disabilities by incorporating UDL principles.

For more information about UDL, including downloadable resources, visit [www.cast.org](http://www.cast.org).

Some information from [www.cast.org](http://www.cast.org), [www.ncsu.edu](http://www.ncsu.edu), and [www.ncset.org](http://www.ncset.org)

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**Recognition Networks**  
The "what" of learning

How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.

**Strategic Networks**  
The "how" of learning

Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks

**Affective Networks**  
The "why" of learning

How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.