

UDI/UDL Goal

The goal of UDI/UDL (Universal Design of Instruction/ Universal Design for Learning) is to maximize the learning of students with a wide range of characteristics by applying UD principles to all aspects of instruction (e.g., delivery methods, physical spaces, information resources, technology, personal interactions, and assessments).

UD Principles

At the Center for Universal Design (CUD) at North Carolina State University, a group of architects, product designers, engineers, and environmental design researchers established seven principles of UD to provide guidance in the design of products and environments (Connell, et al., 1997).

UDI/UDL Definition, Guidelines and Examples

Universal design principles can be applied to many products and environments. Using the CUD format, UDI can be defined as the design of instruction of products and environments to be usable by all students, to the greatest extent possible, without the need for adaptation or specialized design.

Universal design principles can be applied to the overall design of instruction as well as to specific instructional materials, facilities, and strategies (such as lectures, classroom discussions, group work, web-based instruction, labs, field work, and demonstrations). Universally designed curriculum provides students with a wide range of abilities, disabilities, ethnic backgrounds, language skills, and learning styles, multiple means of representation, action and expression, and engagement (called Universal Design for Learning by the Center for Applied Special Technology (CAST), www.cast.org). Listed below are examples of instruction that employ principles of UD. They are organized under eight performance indicator categories, with general guideline for each (Burgstahler, 2007).

1. **Class climate.** Adopt practices that reflect high values with respect to both diversity and inclusiveness. Example: Put a statement on your syllabus inviting students to meet with you to discuss disability-related accommodations and other special learning needs.
2. **Interaction.** Encourage regular and effective interactions between students and the instructor and ensure that communication methods are accessible to all participants. Example: Assign group work for which learners must support each other and that places a high value on different skills and roles.
3. **Physical environments and products.** Ensure that facilities, activities, materials, and equipment are physically accessible to and usable by all students, and that all potential student characteristics are addressed in safety considerations. Example: Develop safety procedures for all students, including those who are blind, deaf, or wheelchair users.
4. **Delivery methods.** Use multiple, accessible instructional methods that are accessible to all learners. Example: Use multiple modes to deliver content; when possible allow students to

choose from multiple options for learning; and motivate and engage students-consider lectures, collaborative learning options, hands-on activities, Internet-based communications, educational software, field work, and so forth.

5. **Information resources and technology.** Ensure that course materials, notes, and other information resources are engaging, flexible, and accessible for all students. Example: Choose printed materials and prepare a syllabus early to allow students the option of beginning to read materials and work on assignments before the course begins. Allow adequate time to arrange for alternate formats, such as books in audio format.
6. **Feedback.** Provide specific feedback on a regular basis. Example: Allow students to turn in parts of large projects for feedback before the final project is due.
7. **Assessment.** Regularly assess student progress using multiple accessible methods and tools, and adjust instruction accordingly. Example: Assess group and cooperative performance, as well as individual achievement.
8. **Accommodation.** Plan for accommodations for students whose needs are not met by the instructional design. Example: Know campus protocols for getting materials in alternate formats, rescheduling classroom locations, and arranging for other accommodations for students with disabilities.

CAST has focused specifically on the application of UD to curriculum. Specifically, CAST defines Universal Design for Learning (UDL) as "a framework for designing curricula that enable all individuals to gain knowledge, skills, and enthusiasm for learning. UDL provides rich supports for learning and reduces barriers to the curriculum while maintaining high achievement standards for all." UDL calls for the integration of multiple means of representation, action and expression, and engagement into course curriculum.

Employing UD principles does not eliminate the need for specific accommodations for students with disabilities. For example, you may need to provide a sign language interpreter for a student who is deaf. However, applying universal design concepts in course planning ensures full access to the content for most students and minimizes the need for special accommodations. For example, designing web resources in accessible formats as they are developed means that no redevelopment is necessary if a blind student enrolls in the class.

UD benefits students with disabilities but also benefits others. For example, captioning course videos, which provides access to deaf students, is also a benefit to students for whom English is a second language, to some students with learning disabilities, and to those watching the tape in a noisy environment. Delivering content in redundant ways can improve instruction for students with a variety of learning styles and cultural backgrounds. Letting all students have access to your class notes and assignments on a website benefits students with disabilities and everyone else. Planning ahead saves time in the long run.

Employing UD principles in everything we do makes a more accessible world for all of us. It minimizes the need to alter it for anyone. For a complete UDI application checklist, consult Equal Access: Universal Design of Instruction at www.uw.edu/doi/equal-access-universal-design-instruction.

