

Provide multiple means of **Engagement**



Affective Networks  
The "WHY" of Learning

Access

Provide options for **Recruiting Interest**

- Optimize individual choice and autonomy
- Optimize relevance, value, and authenticity
- Minimize threats and distractions

Build

Provide options for **Sustaining Effort & Persistence**

- Heighten salience of goals and objectives
- Vary demands and resources to optimize challenge
- Foster collaboration and community
- Increase mastery-oriented feedback

Internalize

Provide options for **Self Regulation**

- Promote expectations and beliefs that optimize motivation
- Facilitate personal coping skills and strategies
- Develop self-assessment and reflection

Goal

**Expert learners** who are...  
**Purposeful & Motivated**

Provide multiple means of **Representation**



Recognition Networks  
The "WHAT" of Learning

Provide options for **Perception**

- Offer ways of customizing the display of information
- Offer alternatives for auditory information
- Offer alternatives for visual information

Provide options for **Language & Symbols**

- Clarify vocabulary and symbols
- Clarify syntax and structure
- Support decoding of text, mathematical notation, and symbols
- Promote understanding across languages
- Illustrate through multiple media

Provide options for **Comprehension**

- Activate or supply background knowledge
- Highlight patterns, critical features, big ideas, and relationships
- Guide information processing and visualization
- Maximize transfer and generalization

**Resourceful & Knowledgeable**

Provide multiple means of **Action & Expression**



Strategic Networks  
The "HOW" of Learning

Provide options for **Physical Action**

- Vary the methods for response and navigation
- Optimize access to tools and assistive technologies

Provide options for **Expression & Communication**

- Use multiple media for communication
- Use multiple tools for construction and composition
- Build fluencies with graduated levels of support for practice and performance

Provide options for **Executive Functions**

- Guide appropriate goal-setting
- Support planning and strategy development
- Facilitate managing information and resources
- Enhance capacity for monitoring progress

**Strategic & Goal-Directed**

# UDL

## Universal Design for Learning Principles, Checkpoints, and Applications

Adopt practices that reflect high values with respect to both diversity and inclusiveness.  
—Sheryl E. Burgstahler

The term **Universal Design for Learning** means a scientifically valid framework for guiding educational practice that 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 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. —U.S. Higher Education Opportunity Act of 2008 (HEOA).

## Provide Multiple Means of Engagement

**THE WHY OF LEARNING** There is no one means of engagement that will be optimal for all learners; providing options for engagement is essential. Consider:

- How can you incorporate variety in your teaching approaches and student learning activities?
- How might you incorporate student interaction and collaboration into your course?
- How might technology be used to engage students in an authentic way?
- What opportunities exist to incorporate student choice?
- How can you encourage student self-regulation and personal coping skills?

<b>Multiple Means of ENGAGEMENT</b>	
Variety in teaching and learning activities	Incorporate small group activities; embed engagement materials in lecture notes, such as sample exam questions or puzzles
Interaction with others	Online discussions; problem-based learning; inquiry-learning; study groups
Use of technology	Online links to news articles, practice exam questions, videos; student and instructor profiles
Student choice of course content	One optional unit or topic after standard units have been addressed; each group researches and presents on a different topic
Self-regulation and motivation	Goal setting; provide rubrics at the beginning of an assignment to prompt self-assessment; checklists for students to track their own progress; low-stakes quizzes for immediate student feedback

# Provide Multiple Means of Representation

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**THE WHAT OF LEARNING** There is no one means of representation that will be optimal for all learners, so providing options for representation is essential. Consider:

- How can you ensure that your course materials are accessible to as many students as possible?
- How might you present main course concepts in more than one format?
- Does your course offer opportunities to encourage student agency?
- What learning activities could emphasize comprehension of key concepts?
- How might you informally gauge student understanding of course concepts?

<b>Multiple Means of REPRESENTATION</b>	
Accessible course materials	Use file formats compatible with text-to-speech software; place textbook on reserve in the library; provide links to Creative Commons resources; use OER; post slides, readings, and course materials in advance
Multimodal sources of information	Include captions for graphics and transcripts for videos; add video recordings of lectures if allowed; provide models and graphics in addition to text; use animations
Pedagogical approaches	Use different pedagogical approaches to topics or concepts, such as logic, statistics, narrative, case study, multiple perspective, and testimonial
Student-created materials	Graphic organizer summary; concept maps; metaphors, illustrations, storyboards; students post their class notes (perhaps in small groups); students create their own glossary of terms throughout the course
Comprehension and key concepts	Study guide (outline and list of key concepts); key concepts overview at the beginning of each class; practice exercises and solutions; highlight patterns and themes between ideas; post FAQs and responses
Check for understanding	Discussion forums; Q&As; student response systems to check for comprehension and guide further discussion

# Provide Multiple Means of Action & Expression

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**THE HOW OF LEARNING** There is no one means of expression that will be optimal for all learners; providing options for action and expression is essential. Consider:

- How might you incorporate multiple means of expression on exams?
- What opportunities exist to incorporate multiple means of expression in assignments?
- How might you provide opportunities for feedback?

- What choices might you offer students regarding assignments, communication, and content delivery?
- What course design decisions can you make to mitigate student anxiety regarding assessment?

<b>Multiple Means of ACTION &amp; EXPRESSION</b>	
Exams	Variety of question types on exams; exam questions that assess various ways of understanding (Bloom’s Taxonomy); incorporate graphics into some questions
Assignments and demonstration of skills	Presentations; different methods of demonstrating skills, such as role-play, debate, discussions; provide opportunities to develop skill in real settings
Opportunities for feedback	Use question sets from the textbook as practice; in-class peer feedback; use rubrics; student-led study groups; cumulative assignments with feedback at various stages; office hours
Student choice	Choice of due date or topic; choice of assignment format; incorporate social media as a communication tool; offer tools and technologies to support learner needs and reduce barriers
Assessment anxiety	Use assignment guidelines to outline your expectations; provide templates or outlines if appropriate; option to write final exam as a take-home exam if appropriate; provide sample assignments showing feedback and grading if appropriate

## Tips

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- **Learn more about the UDL framework!** Bookmark CAST (Center for Applied Special Technology) [cast.org](http://cast.org)
- **Add an inclusive statement to your course Syllabus!** This course is designed to be welcoming to, accessible to, and usable by everyone, including students who are English-language learners, have a variety of learning styles, have disabilities, or are new to online learning. Be sure to let me know immediately if you encounter a required element or resource in the course that is not accessible to you. Also, let me know of changes I can make to the course so that it is more welcoming to, accessible to, or usable by students who take this course in the future.
- **Learn more about UDL application in higher education!** Bookmark UDL On Campus: Universal Design for Learning in Higher Education [udloncampus.cast.org](http://udloncampus.cast.org)
- **Connect with local UDL enthusiasts!** Bookmark the Portland State Office of Academic Innovation [udlpdxedu.wordpress.com](http://udlpdxedu.wordpress.com)