

Universal Design For Learning Considerations for Increasing Student Engagement in Virtual Contexts

UDL Guidelines	Strategy	Examples + Ideas
Provide Options for Recruiting Interest	Optimize individual choice and autonomy	• Give students opportunities to make choices in their learning process and the eventual product (e.g., written essay, video, or podcast) • Encourage students to participate in the design of virtual learning activities or projects; give them the option to take a leadership role if appropriate • Involve students in setting personal and academic goals on a regular basis and incorporate opportunities for growth in personal goals in academic contexts (e.g., use class discussions to work on public speaking) • Create roles and responsibilities for students to hold during synchronous and asynchronous learning times (e.g., note-taker, facilitator, time-keeper)
	Optimize relevance, value, and authenticity	• Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to students. Use distance learning as an opportunity for students to incorporate their interests and passions into their academic work. • Invite personal response, evaluation, and self-regulation to content and activities. Teaching and learning in a remote setting is a great way to elevate student voice in different ways. • Include activities that involve creative problem solving or making sense of complex issues in creative ways. Learning in a new environment could give students a new perspective on how to solve challenges in a new way.
	Minimize threats and distractions	• Leverage clear, organized learning materials that connect to learning objectives and overarching competencies. Ensure students know where to go to find the right resources and learning materials are clear in their purpose/intent. • Vary the social demands required for learning or performance and the requirements for public display and evaluation. For students who are more disengaged in a virtual setting, offer them options to demonstrate learning in 1:1 conversations vs. large groups

		Involve all participants in whole-class discussions during synchronous learning time. Encourage students to keep each other accountable for participating in virtual discussions.
Provide Options for Sustaining Effort + Persistence	Vary demands and resources to optimize challenge	- Differentiate the degree of difficulty or complexity within which core activities can be completed. For more complex tasks, break them down into more bite-sized chunks. - Vary the degrees of freedom for acceptable performance. To accommodate students who are less comfortable in a purely virtual learning environment, provide options for participation and more structured guidance for completing work asynchronously. - Emphasize process, effort, improvement in achieving competencies/meeting standards as alternatives to external evaluation and competition.
	Heighten salience of learner goals and objectives	- Frequently review learning outcomes and tie to competencies in multiple ways; use prompts or scaffolds for visualizing desired outcome - Prompt or require learners to explicitly formulate or restate the goal in his/her own words - Encourage division of long-term goals into short-term objectives - Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests
	Foster collaboration and community	- Create cooperative learning groups with clear goals, roles, and responsibilities. Encourage students to maintain a sense of community by collaborating as often as they can through digital tools (e.g., Zoom, Google Hangouts, FaceTime) - Offer differentiated objectives and supports for students to promote best practices in a virtual learning environment. For students who are more comfortable in an in-person setting for example, offer them a different set of operating procedures for virtual learning to play up their strengths and make them feel more comfortable. - Provide prompts that guide learners in when and how to ask peers and/or teachers for help. Use different tools for different kinds of feedback and set expectations for when students can expect to receive feedback from teachers (e.g., 24 hour turnaround time for emails) - Encourage and support opportunities for peer-to-peer interactions and support (e.g., peer-tutors/mentors).

		• Construct communities of learners engaged in common interests or activities. Encourage them to pursue a passion project that connects with academic material. • Create expectations for group work (e.g., rubrics, norms, etc.)
	Increase mastery-oriented feedback	• Provide feedback that encourages perseverance, focuses on development of efficacy and self-awareness, and encourages the use of specific supports and strategies in the face of challenge • Provide feedback that emphasizes effort, improvement, and achieving a standard/mastering a competency rather than on relative performance (Growth Mindset) • Provide feedback that is frequent, timely, specific, substantive, and informative rather than comparative or competitive
Provide Options for Self-Regulation	Promote expectations and beliefs that optimize motivation	• Make time for fun. Virtual learning can be stressful, but also a time for levity and infusing joy into teaching moments (e.g., incorporate pop culture references and jokes, start new traditions and norms like a spirit day) • Provide prompts, reminders, guides, rubrics, checklists that focus on: ○ Self-regulatory goals like how to handle stress or frustration related to virtual learning or not having in-person contact with classmates for extended periods of time ○ Increasing the length of on-task orientation in the face of distractions (e.g., the Pomodoro Method for structuring periods of deep work) ○ Elevating the frequency of self-reflection and self-reinforcements (e.g., journaling on a daily or weekly basis to reflect on feelings, frustrations, and gratitudes) • Provide coaches, mentors, or agents that model the process of setting personally appropriate goals that take into account both strengths and weaknesses • Support activities that encourage self-reflection and identification of personal goals
	Facilitate personal coping skills and strategies	• Managing frustration (e.g., mindfulness moments, meditation) • Seeking external emotional support (e.g., counseling services) • Developing internal controls and coping skills (Article: How to Maintain Your Mental Health While Working from Home – direct applications to learning from home)

		• Appropriately handling subject specific phobias and judgments of “natural” aptitude (e.g., “how can I improve on the areas I am struggling in?” rather than “I am not good at math”) • Use real life situations or simulations to demonstrate coping skills (e.g., make connections between dealing with stress/frustrations in an in-person context and how the situation can be similarly handled in current circumstances)
	Develop self-assessment and reflection	• Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors (e.g., journal prompts, mood reflection tool, check-in/out questions) • Use activities that include a means by which learners get feedback and have access to alternative scaffolds (e.g., charts, templates, feedback displays) that support understanding progress in a manner that is understandable and timely
Provide Options for Perception	Offer ways of customizing the display of information	Display information in flexible formats so that the following perceptual features can be varied (particularly in slide decks): • Size of text, images, graphs, tables, or other visual content • Contrast between background and text or image • The color used for information or emphasis • The volume or rate of speech or sound (tip: speak slower when recording learning if playback platform has the ability to speed up recording for students who might want to listen/watch at a faster pace) • The speed or timing of video, animation, sound, simulations, etc. • The layout of visual or other elements
	Offer alternatives for auditory and/or visual information	• Use text equivalents in the form of captions or automated speech-to-text (voice recognition) for spoken language on recordings (Tip: YouTube can do this automatically after a video is uploaded, but there are often many errors sprinkled throughout) • Provide visual diagrams, charts, notations of music or sound • Provide written transcripts for videos or auditory clips and American Sign Language (ASL) for spoken English for students who are deaf and hard of hearing • Use visual analogues to represent emphasis and prosody (e.g., emojis, symbols, or images) • Provide visual equivalents for sound effects or alerts • Provide visual and/or emotional description for musical interpretation

		• Provide descriptions (text or spoken) for all images, graphics, video, or animations • Provide spatial models to convey perspective or interaction • Provide auditory cues for key concepts and transitions in visual information • Follow accessibility standards (NIMAS, DAISY, etc.) when creating digital text • Allow for a competent aide, partner, or “intervener” to read text aloud • Provide access to text-to-speech software
Provide Options for Physical Action	Vary the methods for response and navigation	• Provide alternatives for physically interacting with technology by hand, voice, single switch, joystick, keyboard, or adapted keyboard
	Optimize access to tools and assistive technologies	• Provide alternate keyboard commands for mouse action • Build switch and scanning options for increased independent access and keyboard alternatives • Provide access to alternative keyboards • Customize overlays for touch screens and keyboards • Select software that works seamlessly with keyboard alternatives and alt keys
Provide Options for Expression + Communication	Use multiple media/platforms for communication	• Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance/movement, visual art, or video • Use social media and interactive web tools (e.g., discussion forums, chats, web design, annotation tools, storyboards, comic strips, animation presentations)
	Use multiple tools for construction + composition	• Provide spell checkers, grammar checkers, word prediction software (incorporated into Google Docs) • Provide text-to-speech software (voice recognition), human dictation, recording • Provide calculators, graphing calculators, virtual geometric sketchpads, or pre-formatted virtual graph paper

		• Use story webs, outlining tools, or concept mapping tools (Google Jamboard or Miro) • Provide Computer-Aided-Design (CAD), music notation (writing) software, or mathematical notation software
	Build fluencies with graduated levels of support for practice and performance	• Provide differentiated models to emulate (i.e. models that demonstrate the same outcomes but use differing approaches, strategies, skills, etc.) • Provide differentiated mentors (i.e., teachers/tutors who use different approaches to motivate, guide, feedback or inform) • Provide scaffolds that can be gradually released with increasing independence and skills (e.g., embedded into digital reading and writing software) • Provide differentiated feedback (e.g., feedback that is accessible because it can be customized to individual learners) • Provide multiple examples of novel solutions to authentic problems
Provide Options for Executive Function	Guide appropriate goal-setting	• Provide prompts and scaffolds to estimate effort, resources, and difficulty • Provide models or examples of the process and product of goal-setting • Provide guides and checklists for scaffolding goal-setting (e.g., SMART goals) • Post goals, objectives, and schedules in an obvious place to encourage accountability among students (e.g., Google Classroom page or classroom website)
	Support planning and strategy development	• Embed prompts to “stop and think” before acting as well as adequate space, particularly in webinars or synchronous virtual class sessions • Embed prompts to “show and explain your work” (e.g., portfolio review, art critiques) • Provide checklists and project planning templates for understanding the problem, setting up prioritization, sequences, and schedules of steps • Embed coaches or mentors that model think-alouds of the process • Provide guides for breaking long-term goals into reachable short-term objectives

	Facilitate managing information and resources	• Provide graphic organizers and templates for data collection and organizing information • Embed prompts for categorizing and systematizing • Provide checklists and guides for note-taking
	Enhance capacity for monitoring progress	• Ask questions to guide self-monitoring and reflection • Show representations of progress (e.g., before and after photos, graphs and charts showing progress over time, process portfolios) • Prompt learners to identify the type of feedback or advice that they are seeking or wi • Use templates that guide self-reflection on quality and completeness • Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback) • Use of assessment checklists, scoring rubrics, and multiple examples of annotated student work/performance examples