

Applying The Basics of Universal Design for Learning to Your Syllabus and Course

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Today's Presenters!



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Poll: What is your reason for joining us today?

- A. I am new to accessibility and want to learn more about the topic
- B. I have students with disabilities enrolled in my courses and want to learn how to create accessible content for them.
- C. I lead others who develop content and want to provide my team with tips and resources on accessibility
- D. Other: Please share in the chat

ATE: Advanced Technological Education

- NSF Funding – focus on technician education; program development; professional development; community colleges
- Approximately 311 projects & centers currently funded
- Not just a funding program; a true community
- Variety of cross-cutting support for community members baked into the program

About ATE Central

ATE Central's primary purpose is to amplify the impact of ATE.

ATE Central offers:

- Information hub and portal
- Resource collection
- Services and tools
- Outreach and dissemination
- Annual Spotlight Series

AEM Center Mission and Goals

Provides expert technical assistance to increase the **availability and use** of high-quality accessible materials and technologies



Stakeholders include:

- Early Childhood Programs (EC)
- States and Districts (K-12)
- Institutes of Higher Ed (IHEs)
- Workforce Development and Workplace Agencies (WF)
- Publishers and Developers
- Parent Centers

CAST Mission and Goals

CAST is a multifaceted organization with a singular ambition: **Bust the barriers to learning** that millions of people experience every day.

We do this by helping educators and organizations apply insights from the learning sciences and leading-edge practices to educational design and implementation.



Poll: What is your current role?

- A. I belong to an ATE project or center
- B. I am seeking ATE funding
- C. I am at a non-ATE institution
- D. Other: Please share in the chat

Objectives

- Understand how accessibility fits into the Universal Design for Learning framework
- Provide examples of the application of the four POUR principles in the context of a syllabus
- Identify AEM Center and CAST resources for further learning about universally designed educational materials

Your syllabus is your road map

How might you adapt your syllabus to address the changes in how teaching and learning happen in your context? Please share your answers in the chat.

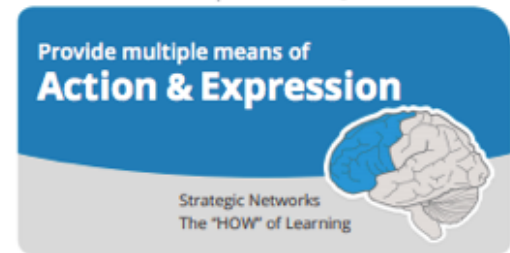
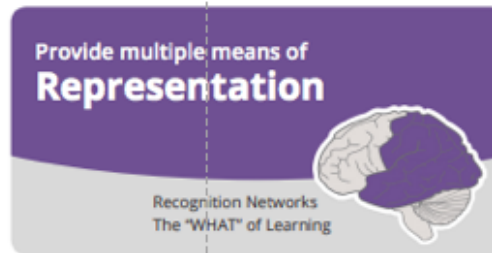


Know the destination



Universal Design for Learning

A **framework** based on scientific insights into how humans learn that seeks to optimize instruction in order to allow **every person** to **become an expert learner**.



Accessibility and Universal Design for Learning

“The purpose of education is not to make information accessible, but rather to teach learners **how to transform accessible information into useable knowledge.**”

Introduction to the [UDL Guidelines](#) (CAST, 2012)



3 Layers of UDL Guidelines



Questions?



Access Layer



Functional Definition of Accessibility (US DOE OCR)

A person with a disability can:

acquire the same information

engage in the same interactions

enjoy the same services

in an equally effective,
equally integrated manner,
and with substantially
equivalent ease of use

as a person without a disability.

POUR on the Accessibility: WCAG

Web Content Accessibility Guidelines 2.1

POUR

Perceivable | Operable | Understandable | Robust



Accessibility Statement

- In addition to your institution's accommodations language, consider including a statement in your syllabus that describes accessibility/UDL supports
- Enhances usability
- Communicates a welcoming environment

Model Accessibility in your Syllabus

- **Understand POUR:**
Perceivable
- Can everyone see and hear the content?
- **How:**
Include alternative text for visuals, **captions & transcripts for videos**



POUR: Videos

- Video can be a powerful medium for conveying information and for connecting. **See: [UDL on Campus Video Resource](#)**
- Captions and transcription can make the content from video accessible to everyone. **See: [How to Create Captions in Youtube](#)**
- Audio descriptions added post production for details: who is in the room, expressions, space description. **See: [NCAM CADET](#)**

The screenshot displays the UDL ON CAMPUS website interface. At the top, the navigation bar includes 'Home', 'UDL in Higher Ed', 'Course Design', 'Media & Materials', and 'Accessibility & Policy'. A dropdown menu is open under 'Media & Materials', listing options: Video, Audio, Image, Text, Web Conferencing, and Creating Accessible OERs. The main content area features a 'VIDEO' section with a list of links: Video, Audio, Image, Text, Web Conferencing, Creating Accessible OERs, and EPUB: Supporting Learner Variability in EPUB Creation. Below this, there are sections for 'WHY' (explaining the importance of video in higher education), 'UDL CONNECTION' (with three sub-sections: 'Provide multiple means of engagement', 'Provide multiple means of action and expression', and 'Provide multiple means of representation'), and 'EXAMPLE' (describing Professor Reed's use of video). On the right side, there is an 'Accessibility at a Glance' sidebar with a list of resources: WebAIM Overview, 3Play Media Webinars, WCAG 2.1 Guidelines, Captions (with links to WGBH Accessibility, Captioning Vendors, and Captet), Caption How-To (with links to YouTube, Vimeo, and Google Drive), Transcription (with links to Access Best Practices, sTranscribe, and Express Scribe), Audio Description (with links to Description Vendors, ADP's Series of Audio Description, and DisabilityNow's How-To Guide), and Video Describe.

Using Videos in Your Syllabus

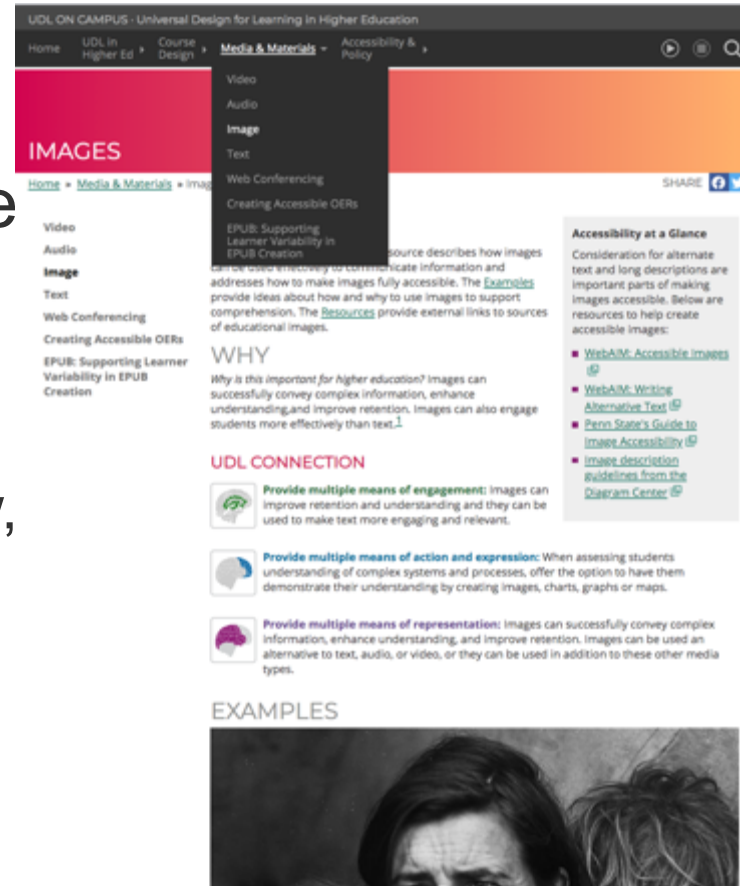
- Faculty introduction
- Introducing activities for the week
- Demonstrating a skill or practice
- Providing feedback
- Social media
- Other ideas – **please post in the chat**



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Twitter: @math114
Skype name: MBenson-Young

Accessibility Practices for POUR

- Images should have alternative text. Complex images should have image descriptions
 - Understand the purpose of the image
 - Start with a broad overview, the big picture
 - Focus on a few relevant details and describe any important relationships. See: [Images resource](#)



The screenshot shows a web page with a navigation menu at the top: Home, UDL in Higher Ed, Course Design, Media & Materials, and Accessibility & Policy. The 'Media & Materials' menu is open, listing options: Video, Audio, Image, Text, Web Conferencing, and Creating Accessible OERs. The main content area is titled 'IMAGES' and includes a sidebar with links to 'Video', 'Audio', 'Image', 'Text', 'Web Conferencing', and 'Creating Accessible OERs'. The main text discusses the importance of images for higher education, mentioning 'Examples' and 'Resources'. A 'UDL CONNECTION' section lists three principles: 'Provide multiple means of engagement', 'Provide multiple means of action and expression', and 'Provide multiple means of representation'. An 'EXAMPLES' section is partially visible at the bottom, showing a close-up of a person's face.

Using Images in Your Syllabus

- Presenting course materials
- Introducing activities for the week
- Demonstrating a skill or practice
- Links to social media
- Other ideas – **please post in the chat**



Alt Text: Brazil Mechatronics Team at the World Skills Competition in 2009 in Calgary, Alberta Canada

[CC BY-NC-ND 2.0](#)
WORLDSKILLS

POUR: Can everyone navigate your syllabus?

- Can everyone navigate the content with ease?

How: Use styles for section headers, create descriptive links

Understanding POUR - The Basics of Universal Design for Learning

- Wednesday, March 25, 2020
- To access the archived recording & slides links please see below.
- [Playback YouTube Recording](#)
- [Webinar Slides](#)

Ensuring your Syllabus is Operable

- Apply styles to indicate section headings (should be descriptive and unique)

Textbook

Foundations of Algebra, 3rd Ed. (2010)

by Ross, Messier, & Kram

If you need an accessible version of this text, please contact the Disability Support Services office.

Course Web Site

All students must log onto the course web site several times each week. Here you will be able to engage in online discussions with classmates, submit assignments, and view your grades and progress.

AaBbCcDdEe

Normal

AaBbCcDdEe

No Spacing

AaBbC

Heading 1

AaBbCcDdEe

Heading 2

AaBbCcDdEe

Heading 3

Leveraging Resources: Creating Accessible Materials from the Start

Designing for Accessibility with POUR



Many of the learning materials educators use in the classroom are self-created. This has been made possible by the greater availability and improved ease of use of authoring tools. These tools now often include options for adding [accessibility](#) into the content creation workflow, and standards such as the [Web Content Accessibility Guidelines \(WCAG\)](#) [↗](#) provide guidance for how to do so. WCAG, which is now at version 2.0, is the international standard for making web content accessible. It is the foundation for many national accessibility laws, including [Section 508](#) [↗](#) in the U.S.

The WCAG guidelines are written in technical language that can be confusing to even veteran developers. Fortunately, they can be distilled into a set of simpler principles, as captured by the acronym **POUR**, that define four qualities of an accessible user experience.

Designing for Accessibility with POUR

Designing for Accessibility



Questions?



Build Layer



Choice is essential

- Learn a new accessibility practice to improve how you deliver materials and share materials remotely. **This will give your learners choice in how to engage.**
- Think about how each of your students can connect with you in the current situation.
 - How might I reach this person?
 - How might I be of help?
 - What choices can I offer for how to connect with me both "live" and not?

Communication choices in your syllabus

- Offer more than one way to reach you
- Provide a demonstration on how to use a communication technology
- Use accessibility practices in the technologies you choose. See: [Web Conferencing Resource](#)



The screenshot shows a website interface for 'UDL ON CAMPUS - Universal Design for Learning in Higher Education'. A navigation menu is open, highlighting 'Media & Materials'. The main content area features a 'WEB CONFERENCE' section with a list of media types: Video, Audio, Image, Text, and Web Conferencing. The 'Web Conferencing' option is selected, leading to a page titled 'Creating Accessible OERs: EPUB: Supporting Learner Variability in EPUB Creation'. This page includes a 'WHY' section explaining the importance of web conferencing for higher education, a 'UDL CONNECTION' section with three bullet points, and an 'EXAMPLE' section.

WHY
Why is this important for higher education?

- Web conferencing can be a powerful tool for students both in blended classroom and the online learning environment.
- Both students and faculty can benefit from real-time interactions outside of the classroom as a way to include interactive media, hold review sessions, and support learning communities.

UDL CONNECTION

- **Provide multiple means of engagement:** Web conferencing can support social learning where students engage in peer-to-peer interaction, which is important for sustained engagement.
- **Provide multiple means of action and expression:** Many built-in features (e.g., tools for chat, video, screen sharing, drawing) allow for students to participate in different ways that they would not have access to in a typical face-to-face setting or through asynchronous online instruction.
- **Provide multiple means of representation:** Web conferencing can be an effective way to include several forms of rich media to support the delivery of content.

EXAMPLE
Professor Higgins teaches a nursing course online that focuses on critical care of children. Rather than posting slides or a pre-recorded lecture, she would like to use web conferencing to broadcast interactive lectures with her students to promote dialogue between her students and answer their

Communication choices in your syllabus (cont.)

Be proactive and **send out a statement asking if students require any accommodations** to participate remotely such as [Communication Access Realtime Translation \(CART\)](#). Captioning should always have its own chat window.

Speaker(s) should **use her/his webcam and have good lighting** so users can see them speaking.

Introduce yourself before you speak and have students do the same.

Pace the delivery so that students have time to digest what you are saying (and what you are sending) especially if they are looking at something while you are talking.

adapted from [DeafTec Communication](#)

(In)Dependence Layer



Social to Self Model of Self-Regulation

- Self-regulation and executive functioning will need to be addressed within new structures for teaching and learning. See: [Executive Functioning in Online Environments resource](#).



The screenshot shows a website interface for 'UDL ON CAMPUS - Universal Design for Learning in Higher Education'. A navigation menu is open over the 'Course Design' link, listing various options: UDL Syllabus, Learning Goals, Emotion and Learning, UDL and Assessment, Executive Functioning in Online Environments (highlighted), Social Learning, Blended Courses, Case-Based Learning, Working with Industry Partners, and Using LMS Data to Inform Course Design. The main content area features a pink header for 'EXECUTIVE FUNCTIONING ENVIRONMENTS', a 'SHARE' button with social media icons, and a paragraph of text. Below this is a 'UDL CONNECTION' section with two icons and text boxes. The 'EXECUTIVE FUNCTIONING' section includes a definition and a bulleted list of skills: setting appropriate goals, planning and organizing, developing steps to achieve a goal, using strategies for problem-solving, remembering, attending, prioritizing and self-discipline, and monitoring progress. An 'EXAMPLE' section follows with a paragraph about a student named Andrew.

Strategies to make problem-solving visible

Stuck Station - A standalone video recording station that students visit to explore strategies to get “unstuck”.

Can provide **prompts to help students record frustration, iterations, troubleshooting**. Students can reflect on each others strategies.

A low-tech alternative - create a thread in your discussion board, on slack or elsewhere to describe problem-solving.

[Playful Assessment Beyond Rubrics Toolkit](#)

How mig
Possibilit
students
variety of
together.

Resources and Contact

- [CAST](#)
- [UDL on Campus](#)
- [AEM Center](#)
- [AEM Resources for Distance Education](#)
- [UDL Guidelines](#)

Contact:

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Connect with ATE Central

- Visit us at atecentral.net
- Email us at info@atecentral.net
- Ring us - 608-262-6587
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