ACCESSIBILITY GUIDE FOR ONLINE TEACHING AND LEARNING DURING COVID19

Recognizing and addressing the special needs of students under the rapid move to the online learning environment

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Stress and anxiety hinder students' capacity for learning

We know from the Maslow pyramid of human needs that focusing on activities like learning might be harder when our physical health and well-being are at risk (McLeod 2020). Currently, all of us experience increased levels of stress and anxiety because of the COVID19 global crisis. Keeping to self-isolation or being in forced quarantine only adds to our mental load. In these circumstances, for some students your course may become a helpful escape from worries and a way to stay socially connected, for others it might create an additional stressor in an already difficult life situation.

What you as an instructor can do?

➢ Start the class by asking **how everyone is doing**.
➢ Create **channels of communication with students** to flag to you their issues of concern (via e-mail, Moodle messenger, or social media channels).
➢ Create **an informal space for students** to share 'good news' stories and their personal strategies to deal with the current stressful environment, share some of your own stories via an informal Moodle forum, or course group in social media.
➢ Add to the course page some resources with tips and **strategies for successful online learning**.
➢ If you detect that some of your students might require **psychological support**, reach out to them individually and direct them to the CEU Psychological Counseling.

Note: Even though many of the issues might be out of your reach to 'fix', showing empathy and understanding will send a powerful message to your students that you are there to support them.

Additional resources:

✓ Laura Horne (2020) Coping and Staying Emotionally Well During COVID-19-related School Closures, ActiveMinds
✓ Maurice J. Elias (2020) Managing virtual instruction during COVID19 crisis, New Jersey Education Association
✓ How to be successful in online classes during COVID19 – a resource for students, DevRy University
✓ Supporting Online Students – curriculum design and support for online learning, teachers' guide

Accessibility issues related to COVID19 can prevent students from staying on track with the course

Do not simply assume that your students are 'lazy' and that is why they stay behind with the course work. There are many factors that can affect student learning progress at the moment, that might be beyond their control due to the current crisis situation.

Issues to consider

- Students need to prioritize learning among other duties (taking care of children and family members; solving financial issues).
- When studying from home students might have poor access to internet or computer.
- Finding a comfortable learning environment might be an issue (e.g. quiet study space/time).
- Time differences mess up the school schedule.
- Reduced access to the library materials makes it hard to continue working on course assignments and research projects.

What you as an instructor can do?

- **Learn about the study conditions of your students**: what physical setting they are in, what devices they have access to; do they have other extra duties/commitments beyond the course.
- **Create a shared course schedule** as a pinned post or shared document and include deadlines for weekly activities, discussions, and assignments.
- Encourage students to create their own **personal learning schedules** to keep on track with the course.
- Put the major **focus on the asynchronous activities and assignments** – this will allow greater flexibility of learning schedules for your students (check CTL's Online Teaching Guide for helpful suggestions).
- Store **all resources for your course in one shared space** (e.g. Moodle course page, shared OneDrive folder) and make sure that all students can access them.
- **Ask students regularly about the course experience** via mini-survey on Moodle or via OneDrive Forms: what worked or did not work for them in the course - this will give you an insight into their learning progress and help you to improve your course.
- **Communicate your expectations clearly**: how many hours per week you expect students to work on the course, if needed adjust your expectations after getting feedback from the students.
- Note that **students need more time** to complete course activities and assignment given that they are now doing it from a distance and online – you might want to review your syllabus and cut down on content and activities that are not essential.
- **Get more ideas on adjusting your course** to online learning using CTL's Online Teaching Moodle page.

Rapid shift to online learning may result in 'cognitive overload' for students

Cognitive overload is related to how students process information, namely, the human mind can only absorb and retain a limited amount of information. If this limit is exceeded, it heavily impedes students' learning and challenges their mental capacity (Sweller et al., 1998; Weinberger et al., 2007). This may be the case in a regular teaching situation, but it is more likely to happen in online learning if it is assumed that in-person teaching can be simply moved to the online environment.

Issues to consider

- Your students are now facing disruptions in their learning process due to the sudden shift from in-person, discussion-based classes to online delivery.
- All their academic activities e.g. courses, consultations, supervision, mentoring are happening online, so they spend all their learning time online.
- Often, these courses have not been meant as online courses, therefore the adjustment of course content and delivery may not be as appropriate as it would "normally" be.
- Your students' attention span is shorter in online "delivery" mode, meaning 10-15 minutes.
- Your students may experience inability to process and absorb new information in this mode of learning.

What you as an instructor can do?

- **Make the necessary resources and your course content available on the CEU E-Learning site** so that students can access those materials whenever needed.
- **Get rid of the unnecessary** materials, activities.
- **Nothing should be more than "one click away"**, meaning your students should find resources quickly and smoothly.
- If you assign tasks in your online course, **provide detailed and concrete instructions**.

When teaching a "live" session (synchronous):

- **Divide complex problems into smaller steps**. Chunk content, such as complex problems or concepts by dividing them into smaller ideas, subtopics, or more focused questions which can be absorbed more easily.
- **Use Miller's "7 plus or minus 2 Rule"** (Miller, 1995), meaning that short-term memory can only process and store 5-9 pieces of information at once. So, keep this in mind when you organize your online session.
- **Allow time for processing information and pause for questions.** "Content Chunks" in your sessions should be then followed by some reflection time e.g. students taking notes, reading through their notes, asking questions.

- ➢ **Plan for variation in terms of modes of delivery**, that is, combine lecture with plenary, pair work, small group discussions, individual reflections, the use of audio-visuals, student presentation etc.
- ➢ **Always carve out time for wrap-up** and take-away messages at the end of the session.

Additional resources

- ✓ Brown, P. C., Roediger, H. L., & McDaniel, M. A. (2014). *Make It Stick: The Science of Successful Learning (1 edition).* Cambridge, Massachusetts: Belknap Press: An Imprint of Harvard University Press.
- ✓ Crosby, J.R. (2015). Reducing cognitive load: keep it simple. Available at: https://teachingcommons.stanford.edu/teaching-talk/reducing-cognitive-load-keep-it-simple
- ✓ Darby, F. & Lang, J. M. (2019). *Small teaching online: Applying Learning Science in Online Classes.* San Fransisco: Jossey-Bass.
- ✓ Hazlett, C. (2013, November 13). Optimal video length for student engagement. Available at: http://blog.edx.org/optimal-video-length-student-engagement/?track=blog
- ✓ Organize Your Online Course for Student Success Designing for Clarity Available at: https://learning.northeastern.edu/organize-your-online-course-for-student-success/

For students with special needs learning online creates additional accessibility concerns

As universities shift from in-person to online instruction, both university management and instructors recognize the need, as well as the opportunity, to design online course materials to be as accessible as possible. A course is accessible to such an extent that students can use simple, consistent navigation in the course content. Designing accessible course content requires careful instructional considerations. The special needs of students are recognized most when the principles of **Universal Design for Learning** (UDL) (Tobin, 2014).

The following are the three principles of UDL. The design of students' learning experiences in higher education:
- incorporates multiple means of engaging with content and people,
- represents information, and
- expresses skills and knowledge.

Hence, instructors should provide multiple methods of presentation to help learners acquire knowledge in different ways and multiple methods to help them express what

they know. They should also provide multiple options to students for engagement, to challenge and motivate their students.

Students in each of the main categories, adapted from [W3C: Diversity in Web Use:](#) visual/auditory/cognitive, learning and neurological differences/physical disabilities/and speech disabilities, experience different types of issues accessing online courses.

NOTE: Students may not be aware of **how to ask for support or what adjustments** may be available to them. So, start by asking **students** if they are experiencing any barriers and give them the **option to raise this in a private** / direct email and / or **signpost them to the CEU disability officer.**

Visual impairments

The main issue for the blind and visually impaired students is that PDF documents are inaccessible for screen readers. Individuals with visual disabilities may need to use a screen reader and the keyboard to access course material and assignments, instead of a mouse. Furthermore, they may face difficulties seeing colors and contrast.

What you as an instructor can do?

- ➢ **make the content auditory**, if the content is visual;
- ➢ **provide documents in accessible format.** If a PDF, or PowerPoint is used, an accessible HTML or Word version needs to be created.
- ➢ **check screen reader accessibility**, you can use the tool [Webaim](#) for this.
- ➢ **have an supportive text** to explain images, charts, and graphs with the help of [Image descriptions and alt-text .](#)
- ➢ **use color with care**, [use color combinations that are high contrast](#)
- ➢ **choose fonts carefully**: the best fonts for a text Arial and Tahoma.

Auditory impairments

Individuals with hearing loss may not be able to hear the audio in podcasts, videos, and other online media. Hearing loss (a lot of this also relates to those with bad connections, poor audio, noisy work environments) - issues around lack of equipment and its compatibility. Some students who have very mild hearing problems, not normally issue in class, may struggle more now.

What you as an instructor can do?

- ➢ **make the content visual**, if the content is auditory;

- **prepare transcripts** of your recorded videos and audios. It may also be effective, if group Questions are transcribed in text. A free, open-source media player for transcribing is [Able Player on GitHub.](#)
- **carefully choose the online technology tools** for learning carefully. Some channels (Zoom) are much better than others (Skype, Teams) as regards to syncing audio/ video, which makes it easier to lipread
- **provide captions** for videos or other audio-type online course materials (e.g., narrated PPT). Check [Captioning your own video for free](#) for more ideas.
- Encourage all students, where possible, to **use their video** cameras.
- Clarify **discussion questions in writing** using chat facilities or post questions on Moodle, ask students to type up longer or more complicated questions in chat.

Cognitive, learning, and neurological differences

Individuals with cognitive differences include students with learning disabilities, dyslexic students, students on the Autism spectrum, those with visual migraines, or with Attention deficit hyperactivity disorder (ADHD). Individuals with cognitive disabilities may have difficulty reading text or interpreting illustrations. They may experience challenges with following and keeping up with synchronous learning activities.

What you as an instructor can do?

- set **clear rules of communication** (like raising hand function to make a point, outline the discussion roles e.g. chair, note taker, flag the order of speakers in advance, so that students are prepared to respond to your questions, when you pose them);
- remind students periodically about the rules and revise them, if they do not work;
- flag in advance **if a text is going to be discussed**, so students have it open (if possible) or have made advance notes.
- **Provide time to 're-look' at the text**, if you are going to refer to it during the online session;
- provide text for printing out or allow student to participate in Zoom/Teams calls with voice only, to help prevent visual migraines;
- **separate out tasks** into gathering info for the task (e.g. watching video) and doing the task (e.g. reflecting on the Qs).
- allocate time for students to **read and digest the task first**, before starting an activity or a discussion;
- Give students **tasks that enable them to take a 'screen break'** (e.g. making individual notes for 3 mins on a specific question);
- **provide periodic** breaks, when teaching a session online.

Physical differences

Physical disabilities include but are not limited to paralysis, loss or damage of limb(s), multiple sclerosis, arthritis and other conditions with weakness and limitations of muscular control. Individuals with physical disabilities may face problems using a mouse and they may need voice-recognition software such as Google Now to access a course. Not only do they have slow response time, but they tire easily.

What you as an instructor can do?

➢ make sure that **all functions are available from the keyboard** (try tabbing from link to link).
➢ **provide a method for easy navigation** in complex and lengthy content.

Speech differences

Individuals with speech disabilities find it difficult to produce speech that is recognizable by other people or software. The most severe condition is mutism. For voice-impaired individuals communication can be challenging.

What you as an instructor can do?

➢ **Contact CEU Disability Services Officer** (Natalia Nyikes) for web applications with a text-based way to interact.

Additional resources:

✓ CAST (2008). Universal design for learning guidelines version 1.0. Wakefield, MA. Retrieved from http://www.udlcenter.org/aboutudl/udlguidelines/udlguidelines_graphicorganizer
✓ Dell, C. A., Dell, T. F., & Blackwell, T. L. (2015). Applying Universal Design for Learning in Online Courses: Pedagogical and Practical Considerations. The Journal of Educators Online-JEO, 13(2), 166-192.
✓ DO-IT University of Washington (2010). *Working together: People with disabilities and computer technology.* Retrieved from http://www.washington.edu/doit/Video/index.php?vid=33
✓ DO-IT University of Washington (2012). Academic accommodations for students with learning disabilities. Retrieved from http://www.washington.edu/doit/Brochures/Academics/accomm_ld.html
✓ Tobin, T. J. (2014). Increase online student retention with universal design for learning. *Quarterly Review of Distance Education, 15*(3), 13-24.

WHOM TO CONTACT FOR SUPPORT

CEU Center for Teaching and Learning (Helga Dorner, Margaryta Rymarenko) at ctl@ceu.edu for pedagogy-related issues of online teaching and learning.

CEU Disability Services Officer (Natalia Nyikes) at nyikesn@ceu.edu for accessibility issues for students with special needs.

CEU IT Support Helpdesk at helprequest@ceu.edu for issues related to digital accessibility.

CEU Psychological Counseling (Laszlo Biro) at birol@ceu.edu for issues related to psychological support.