



## 21<sup>ST</sup> CENTURY LEARNING

### WHAT IT IS AND HOW TO APPROACH IT



#### WHAT IS IT?

21<sup>st</sup> century learning refers to identifying key ways in which learning for students now requires the development of additional skills to help student succeed. In addition to placing a greater emphasis on the integration of technology and flexibility to enhance traditional approaches to pedagogy, a core feature of 21<sup>st</sup> century learning is the development of the 4 C's: *creativity, critical thinking, collaboration, and communication*.

Unlike traditional approaches to learning which place a greater emphasis on students' ability to memorize course material and demonstrate their understanding of this knowledge through traditional modes of assessment such as essays and exams, the pedagogical approach informed by 21<sup>st</sup> century learning builds upon these elements but adds several key features as well. These features include developing interpersonal and intrapersonal skills, cultivating leadership and teamwork capacities, engaging in deeper cognitive and meta-cognitive reflection, and utilizing digital technologies effectively and creatively.



#### WHY IS THIS IMPORTANT?

Given the quickly evolving landscape in higher education, the need for students to be well-equipped to meet the demands of the 21<sup>st</sup> century workforce, and to be able to thrive within these environments upon completion of their post-secondary education, is important. The integration of artificial intelligence and digital technologies in the workplace requires students to develop additional skills and competencies as they complete their studies.

As a result, this requires instructors to approach teaching and learning from a new angle, including thinking about course content and delivery in new ways, incorporating technology intentionally and purposefully, and helping to create a learning environment where students will be able to succeed inside and outside of the classroom.



#### HOW CAN INSTRUCTORS IMPLEMENT 21<sup>ST</sup> CENTURY LEARNING INTO THEIR TEACHING?

For instructors who are interested in supporting students in developing skills needed for 21<sup>st</sup> century learning in their own courses, check out some of examples below:

1. **Incorporate problem-based learning and group learning.** Unlike traditional modes of assessment, which are often focused on the student's mastery of course concepts and ideas on their own, the implementation of problem-based learning and group learning can provide students with practical skills that can suit them well in the 21<sup>st</sup> century workforce. In addition to applying core course ideas into their work, the application of course theories to real-world problems allows students to expand their understanding of the course content while simultaneously developing interpersonal skills, such as teamwork and collaboration.
2. **Foster opportunities for self-directed learning.** While developing interpersonal skills and capacities to be able to work on things such as long-term group projects is important, the ability to support independent learning is another 21<sup>st</sup> century skill that needs to be considered. For example, creating self-paced modules that students can complete on their own time, and using

these modules to supplement the core learning experience is one way to help promote self-directed learning and provide students with more agency in how they learn.

3. **Incorporate technology to inspire student creativity.** When used effectively and purposefully, technological tools can be used in various ways to spark student creativity and add a layer of depth to the learning experience. For example, the incorporation and responsible use of [generative AI as a pedagogical tool](#) and other digital technologies can help support student learning and help to further refine their ability to cultivate digital literacy, informational literacy, and technological literacy.
4. **Incorporate experiential education opportunities and activities.** Providing students with hands-on and practical experiences in the classroom gives them a chance to both demonstrate their understanding of course content and helps them develop transferable skills moving forward. Moreover, digital technologies can be incorporated to offer unique learning experiences, such as virtual simulations and roleplaying activities, that provides a way for students to understand how the content there are learning in class can be applied in real-world situations.
5. **Maintain flexibility to support equity and inclusion in the classroom.** While technological advances have the potential to support learning in innovative ways, it is helpful to remember that not all students will have equal access to the same digital technologies as everyone else or have the same level of familiarity with these tools. As a result, maintaining a degree of flexibility with assignment design can help support students, regardless of their comfort level with technology, while helping to [support equity in the classroom](#) at the same time.



#### ADDITIONAL RESOURCES (Internal)

York University. 21st Century Learning.

<https://presidentsreport2023.yorku.ca/our-priorities/21st-century-learning/>

York University Academic Plan. <https://www.yorku.ca/uap2020-25/>

#### ADDITIONAL RESOURCES (External)

##### Explore in 15-30 Minutes

Global Education Innovation Initiative. 21<sup>st</sup> Century Education.

<https://globaled.gse.harvard.edu/21st-century-education>

Laal, M., Laal, M., & Kermanshahi, Z. K. (2012). 21<sup>st</sup> century learning; learning in collaboration. *Procedia-Social and Behavioral Sciences*, 47, 1696-1701.

Leming, M. What is a 21<sup>st</sup> Century Skills-Based Education? The Hun School of Princeton.

<https://www.hunschool.org/resources/21-century-classroom>

Sahin, M. C. (2009). Instructional design principles for 21<sup>st</sup> century learning skills. *Procedia-Social and Behavioral Sciences*, 1(1), 1464-1468.

University of Nebraska-Lincoln. Thoughtful Learning: What are the 4 C's of learning skills?

<https://newsroom.unl.edu/announce/csmce/5344/29195>

What Are 21<sup>st</sup> Century Skills? <https://www.icevonline.com/blog/what-are-21st-century-skills>

**Explore in 30-60 minutes**

Kereluik, K., Mishra, P., Fahnoe, C., & Terry, L. (2013). What knowledge is of most worth: Teacher knowledge for 21st century learning. *Journal of digital learning in teacher education*, 29(4), 127-140.

Kilag, O. K. T., Malbas, M. H., Miñoza, J. R., Ledesma, M. M. R., Vestal, A. B. E., & Sasan, J. M. V. (2024). The Views of the Faculty on the Effectiveness of Teacher Education Programs in Developing Lifelong Learning Competence. *European Journal of Higher Education and Academic Advancement*, 1(2), 92-102.

Mishra, P., & Mehta, R. (2017). What we educators get wrong about 21st-century learning: Results of a survey. *Journal of Digital learning in Teacher education*, 33(1), 6-19.

Quan, Z., & Zhang, Y. (2025). A Historical Review on Learning With Technology: From Computers to Smartphones. In *Encyclopedia of Information Science and Technology, Sixth Edition* (pp. 1-21). IGI Global.

**Explore in 60+ minutes**

Bernhardt, P. E. (2015). 21<sup>st</sup> century learning: Professional development in practice. *The Qualitative Report*, 20(1), 1-19.

Foster, N. and M. Piacentini (eds.) (2023), *Innovating Assessments to Measure and Support Complex Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/e5f3e341-en>. <https://www.oecd-ilibrary.org/sites/3637901c-en/index.html?itemId=/content/component/3637901c-en#>

Orak, S. D., & İnözü, J. (2021). Teachers' Awareness and Actual Practices of 21<sup>st</sup> Century Learning and Innovation Skills. *International Online Journal of Education and Teaching*, 8(2), 975-997.

Tohani, E., & Aulia, I. (2022). Effects of 21<sup>st</sup> Century Learning on the Development of Critical Thinking, Creativity, Communication, and Collaboration Skills. *Journal of Nonformal Education*, 8(1), 46-53.

**Would you like to learn more?**

Contact us at Teaching Commons for additional resources, handouts, applications, courses, workshops, examples, advice, assistance, one-on-one consulting, and everything else related to teaching and learning. We are happy and eager to assist you!



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