

Course Faculty

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Course Description

This course provides teachers with a solid and practical foundation in the application of the learning sciences to online and blended learning. Technology is just a tool - a computer *can't* take the place of a great teacher. However, when applied thoughtfully, technology *can* help teachers extend their reach, automate certain tasks, and engage students in challenging, meaningful learning experiences.

The course anchors online learning to best practices by engaging teachers with key findings from education research using the simple and actionable framework of The Hallmarks of Great Online Learning. Teachers apply the findings to their own practice as they develop online learning experiences. By the end of the course, all participants will be comfortable writing assessments that can be used online, creating short and engaging teaching videos, and designing new online teaching experiences that are anchored in the science of learning.

The teaching strategies emphasized in this course are best suited to grade 6-12 teachers who teach STEM or social studies subjects, but teachers at other grade levels and in other subject areas also stand to benefit from the course. Rather than requiring participants to teach with specific software, this course is designed to allow teachers to select and use the technologies that are most appropriate for their school and their students.

Course Objectives

By the end of this course, teachers will be able to:

- Analyze key findings from education research, and make online course design choices based upon those findings.
- Provide specific and actionable approaches to cultivate students' digital literacy and self-efficacy when learning online.
- Describe best practices in designing online instruction for all learners, including learners with disabilities.
- Identify equity issues at play when a school or class transitions from face-to-face to online instruction, and propose specific and achievable ways to mitigate those equity challenges.
- Research technologies and instructional techniques, and propose how those could be implemented in online teaching in a way that aligns with the science of learning.
- Develop structured asynchronous interactions (such as discussions) that can be used to support online learning.
- Develop assessments of a variety of types that can be implemented online,

and describe clear rules for evaluating the rigor and quality of those assessments.

- Create a short and compelling online teaching video, and explain how this video exemplifies research-backed best practices.

Representative Readings

Brame, C. J. (2016). Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content. *CBE Life Sciences Education*, 15(4). <https://doi.org/10.1187/cbe.16-03-0125>

Brame, C. J., & Biel, R. (2015). Test-Enhanced Learning: The Potential for Testing to Promote Greater Learning in Undergraduate Science Courses. *CBE—Life Sciences Education*, 14(2), es4. <https://doi.org/10.1187/cbe.14-11-0208>

Brown, P., Roediger, H. L., & McDaniel, M. (2014). *Make It Stick* (pp. 1-22). Harvard University Press.

Darby, F. (2019). How to Be a Better Online Teacher. *The Chronicle of Higher Education*. <https://www.chronicle.com/interactives/advice-online-teaching>

Michigan Virtual. (2020). Teacher Guide to Online Learning. <https://michiganvirtual.org/resources/guides/teacher-guide/>

Morton, N. The digital equity issues of confronting coronavirus with online education. (2020). *The Hechinger Report*. <https://hechingerreport.org/should-schools-teach-anyone-who-can-get-online-or-no-one-at-all/>

National Academies of Sciences, Engineering, and Medicine (2018). *How People Learn II: Learners, Contexts, and Cultures* (pp. 110-134). The National Academies Press. <https://doi.org/10.17226/24783>.

Terada, Y. Boosting Student Engagement Through Project-Based Learning. (2018). *Edutopia*. Retrieved May 25, 2020, from <https://www.edutopia.org/article/boosting-student-engagement-through-project-based-learning>

Wallis, C. A Better Way to Study Through Self-Testing and Distributed Practice. (2017). *KQED*. Retrieved May 31, 2020, from <https://www.kqed.org/mindshift/49750/a-better-way-to-study-through-self-testing-and-distributed-practice>

Technical Requirements

Please review the following technical requirements carefully. It is your sole responsibility to ensure that you have met the technical requirements to participate and succeed in this course.

Computer, Operating System, and Software Specifications

- Laptop or desktop computer*
- Windows: XP or later operating system; Mac: OSX 10.7 or later operating system

- Minimum screen size of 1366 x 768 pixels
- ≥1GB RAM
- ≥2GHz processor

*This course may also be taken on Android and iOS mobile devices; a mobile app must be installed to view the course on a tablet or phone. For an optimal learning experience, laptop or desktop access is strongly recommended.

Internet and Video Specifications

- Recommended browsers: Chrome (v30+) or Firefox (v27+)
- Google Suite-compatible
- Reliable internet connection with a minimum speed of 10 Mbps
- Working headphones or earbuds that can be used for class video conferences
- A working webcam and microphone compatible with your computer
- The Zoom teleconferencing application needs to be installed on your computer before the first class video call. You need to set up a free Zoom account to participate in the course.
- One course assignment also requires you to install recording software and capture a teaching video. A system compatible with Zoom should also be able to support this type of software.

Course Requirements

Requirement	% of grade
Course text and readings	NA
Videos	NA
Class videoconference sections (5 total; participation-graded)	10
Quizzes and surveys	10
Discussion forum posts (rubric-graded)	20
Major Assignments	
Develop an online-ready teaching video	15
Develop an online-ready asynchronous learning interaction	15
Develop online-ready assessments	15
Final project	15
Total	100

Attendance and Participation

There are five videoconference sections in this course. The Zoom teleconferencing software is used for these sections (see Technical Requirements, above). Attendance and participation is required. Participants must attend at least three of the course sections. **Participants who miss more than two sections will be automatically issued a failing grade.**

Grading

This course follows a mastery-based approach to learning. Course letter grades will be issued in accordance with the grading scheme below. Cumulative score will be calculated as a weighted percentage, with the weights indicated in the “Course Requirements” table, above.

Letter Grade and Designation	Cumulative Score Range
A - Mastery	> 90.0% and all major assignments complete
B - Proficiency	75.0 - 90.0 and all major assignments complete
F - Fail	< 75.0 or any major assignment incomplete

Participants are required to achieve a minimum score of “proficient” on the major course assignments (see “Course Requirements” for the list of the major assignments). If any major assignment is scored less than proficient, it must be revised, re-submitted, and scored at least “proficient” in order to complete the course.

All major assignments are graded based upon rubrics. Assignments will be graded in full upon submission, with instructor-provided feedback for improvement. Participants may choose to revise and re-submit each major assignment once (regardless of the score on the first submission). If a participant fails to achieve a minimum score of “proficient” on a second submission, but has shown improvement relative to the first submission, s/he may be allowed one additional submission to achieve a proficient score.

Deadlines, Extensions, and Late Work

Course Duration and Extensions

The course runs for fourteen weeks. Participants are expected to complete all course work by the end of the course run. If a participant is late in completing the course, s/he may request a twelve-week extension before the end of the course run. Extensions will only be granted if the participant has shown that s/he is making meaningful progress towards course completion. This extension requires administrators and instructors to adjust individual participant deadlines and continue providing participant support and feedback after the end of the course run. Therefore, an administrative fee of **\$100** will be charged to the participant for a single twelve-week extension. Participants who do not complete the course within 26 weeks total (14 weeks plus 12 weeks of extension) will receive a grade of F.

Dropping the Course

Participants may drop the course within 21 days of the course start date. Participants will be refunded their course payment less a **\$100** administrative fee. The course may not be dropped more than 21 days after the start date.

Deadlines for Videoconference Sections

Major course assignments are largely self-paced, however, participants are expected to complete pre-work in advance of class videoconference sections in order to arrive to section prepared. Section pre-work and its associated deadlines will be clearly marked in

the course calendar.

Deadlines for Major Assignments

The list of major assignments may be found under “course requirements,” above. The deadline for each major assignment will be clearly specified in the course calendar. If a participant makes her first submission of each major assignment before the corresponding deadline for that assignment, this ensures that there is adequate time for the assignment to be scored (and revised and re-scored, if needed). Any participant who makes a first submission after the indicated deadline may need to apply for an extension in order to ensure adequate time to complete the course.

Credit Registration Deadlines

Participants must register for graduate course credit with an Enact Academy partner university and provide proof (an electronic copy of a confirmation email) within 21 days of the course start date.

Incomplete Grades

In the event that any participant does not achieve the minimum score of proficiency on major assignments, fails to attend required Videoconference sections, or fails to complete any other course work, by default s/he cannot pass the course. Incomplete grades will be handled according to the University rules and regulations. Participants who wish to void an incomplete grade and replace it with a letter grade must re-register and re-take the course.

Participant Conduct

All course participants agree to follow the Enact Academy Honor Code and Code of Community Conduct, which include clear policies for academic integrity and professional conduct. In addition, participants will abide by all relevant policies of credit-granting partner universities.