

TECHNOLOGY (TECX)

TECX 500 ePortfolio Tools for the Classroom 3 credits

Learning portfolios have been a best practice in the classroom long before the digital age. However, with advancements in content hosting and curation, portfolios have gotten a 21st-century upgrade in the form of e-portfolios. But how do you manage a large Web-based project like this? What structures do you put in place to keep students on task and engaged, and what programs do you use that will ensure appropriate accessibility and privacy? In this course, you will construct an e-portfolio strategy for your classroom and incorporate best practices to enhance the learning experience for your students. You'll survey research supporting the positive impact of this type of project, and select the e-portfolio tools that will work best for your students' diverse needs and your specific educational context. In addition, you'll learn how to structure your assessment plans to better integrate a portfolio project so you can more easily compile students' learning artifacts. This course is offered through Advancement Courses. By the end of this course, you will have a comprehensive plan to implement an e-portfolio project that will help students reflect on their previous learning, demonstrate alignment with course standards, and showcase their proficiency to the outside world. This course is offered through Advancement Courses.

TECX 501 Essential Classroom Technology for Teachers 3 credits

The importance of technology in our society cannot be overstated. However, teaching with technology can be overwhelming, if not frustrating. How do you sort through all the options available, make sure you know how to use what you select, and keep students on task while using technology? This course arms you with concrete strategies for how to choose, use, and monitor technology in the classroom. You will learn to use technology as a teaching and planning tool, design meaningful learning experiences, incorporate technical terminology in your speech, and accommodate underserved populations such as special education and English language learners. You will also learn how to plan instruction that meets the standards for technological literacy set forth by the International Society for Technology in Education (ISTE) and the Common Core State Standards (CCSS). After finishing this course, you'll be able to immediately implement technology-based activities in your classroom, allowing your students the opportunity to connect to content in new and engaging ways and giving them skills they will use far beyond your classroom. This course is offered through Advancement Courses.

TECX 502 Fostering Computer Literacy 3 credits

It goes without saying that computer literacy is essential in today's world. Every career, every mode of communication, every aspect of life is touched by computers and technological devices, and our students must be prepared to enter that world. Regardless of what subject or grade you teach, you can help your students develop and master computer literacy skills. In this course, you will learn how to integrate computer literacy lessons into any classroom to meet Common Core and ISTE standards and prepare your students for a lifetime of computer use. You will develop strategies for teaching students typing skills, the difference between hardware and software, and how to be good digital citizens. In addition, you will explore how you can take advantage of Google tools for education and coach students on how to care for school-owned and personal devices. With the knowledge and techniques from this course, you will be prepared to provide your students with a plethora of engaging learning opportunities to encourage computer literacy in your classroom. This course is offered through Advancement Courses.

TECX 503 Social Media Tools for Teaching and Learning 3 credits

Although some teachers may view social media as nothing but a distraction, it can actually be an effective instructional tool when used correctly. Social media can help students become media literate and teach collaboration, communication, and critical-thinking skills they will need for future success in this technological age. In this course, you will receive an in-depth guide to successfully planning and implementing authentic, integrated social media tools regardless of what grade you teach. You'll cultivate strategies for how to integrate a variety of social media applications into core curriculum content areas, prepare students to participate safely through digital citizenship practices, and support the needs of diverse learners through social media platforms. In addition, you will examine how you might use social media for formative and summative assessment, and how to create rubrics for these assessments. Using the methods from this course, you will be able to increase student engagement and improve overall achievement through the use of various social media tools. This course is offered through Advancement Courses.

TECX 504 Teaching Computer Science in 6-12 3 credits

Our society's increased dependence on technology is generating a need for highly qualified individuals who have the skills to support and create that technology. Therefore, it is essential to equip middle and high school students with the fundamentals of computer science so they have a foundation upon which to navigate the world and their future careers. In this course, you'll learn how to prepare students to meet the needs of our modern economy through an overview of what computer science is, a discussion of how it affects our society, and tools for bringing computer science skills into a variety of learning environments. You'll review several resources and choose which ones will work best in your classroom setting given your level of access to technology. In addition, you'll examine the long-term benefits of teaching students computer science skills and how to be good digital citizens. With the techniques from this course, you'll be able impart skills that students will use for a lifetime and also give them a head start in a highly valuable vocational field. This course is offered through Advancement Courses.

TECX 505 Teaching Computer Science in K-5 3 credits

Our society's increased dependence on technology is generating a need for highly qualified individuals who have the skills to support and create that technology. Thus, it is never too early to introduce the fundamentals of computer science to elementary school students—and this course will help you do just that. In this course, you'll learn strategies for preparing children to meet the needs of our modern economy, starting with the basics of computational thinking in K–3 and moving into beginning programming in grades 4–5. You'll review a variety of resources and choose which ones will work best in your classroom setting given your access to technology. In addition, you'll learn the long-term benefits of teaching students computer science skills and how to be good digital citizens. With the techniques from this course, you'll be able impart skills that students will use for a lifetime and also give them a head start in a highly valuable vocational field. This course is offered through Advancement Courses.

TECX 506 The Role of Technology in the Inclusive Classroom 3 credits

Both individualized education programs (IEPs) and new technologies can sometimes feel like overwhelming additions to your already-packed curriculum. However, in reality, technology tools can be a great solution for you when planning differentiated instruction for the diverse needs of your students, and can also be a valuable way for your students to become more independent learners. In this course, you will discover how to use technology to engage your students and help meet their special needs, thereby improving behavior and attention span and increasing the likelihood of academic success. Using Universal Design for Learning principles, you'll learn how to plan instruction that will motivate a wide variety of learners, and how to stay organized and efficient while managing a scaffolded, individualized curriculum. In addition, you'll explore digital tools (including assistive technology) that you can use to present core content so all students can access the curriculum according to their specific needs. With the strategies from this course, you'll be able to use technology to foster a sense of independence and empowerment among all your students to encourage them to grow and succeed. This course is offered through Advancement Courses.

TECX 508 Using Technology to Support Students With Special Needs 3 credits

Today's teachers are tasked with meeting the needs of students who have a diverse range of abilities and learning styles, and differing levels of prior knowledge in specific content areas. Students who have learning differences face even more challenges than their peers in accessing the general education curriculum. Fortunately, teachers have the opportunity to use technology to inspire and ignite their students' interest in learning before these challenges become true roadblocks to academic success. In this course, you will learn all about the wide variety of technology resources available to teach subjects such as reading, writing, math, science, and social studies. You'll develop strategies for incorporating assistive technologies to help all students access curriculum, and further, how to use technology to differentiate instruction and motivate students with disabilities. In addition, you will explore methods for choosing the right technology tools for your classroom and finding funding to help ensure your students with special needs get the resources they require. Using the techniques from this course, you will be equipped to select and implement technology into your curriculum for a wide variety of subjects to meet the needs of all students in your classroom. This course is offered through Advancement Courses.

TECX 509 Computerless Coding: Play-Based Strategies and Tools 3 credits

Coding has quickly become one of the most important 21st-century skills. Coding is behind every app, every web page, and every social media post, and it will only become more integral to our students' lives and careers as technology advances. But how can you teach this essential skill to students without depending on constant access to a classroom's worth of computers? In this course, you will learn basic coding skills and how to teach these skills to students through play-based classroom activities—no computer and no previous coding knowledge required! You'll develop lesson plans and classroom activities to help students develop the logical thinking and problem-solving skills they need for coding. Algorithms, patterns, flowcharts, conditionals, and variables will all transform from scary words into fun classroom games. You'll also learn how to create a classroom environment where the word coding is associated with fun and where you are nurturing the next generation of coding masters. With the knowledge and skills from this course, you will be equipped to teach coding foundations to your students in a way that supports their future success as coders and critical thinkers. This course is offered through Advancement Courses.

TECX 510 Equity in the Digital Classroom 1 credit

Online learning presents many challenges, not the least of which is providing an equitable experience for all learners. Some student populations are more at risk of falling behind than others, and teachers are often at a loss for how to keep these students engaged and on track in a digital space. In this course, you'll take a deep dive into the "digital divide" that can develop when education moves online. Not every student experiences online learning in the same way or with the same supports in place, so we'll examine the challenges for different student populations, including low-income and homeless students, struggling learners, English language learners, and students who experience mental health challenges such as depression, anxiety, or ADHD. Most importantly, you'll learn how to address these issues of inequity, including targeted strategies to help you bridge the digital divide and create an even playing field for all students. By the end of this course, you'll have a roadmap for how to avoid the pitfalls of online learning and plan an equitable learning experience for all your students.

TECX 511 Fostering Student Interaction in Online Learning 1 credit

For many people, online learning brings to mind the image of a student sitting isolated with nothing but a computer for company. But as a teacher, you know that rich learning experiences require interaction, and the best lessons often involve more than just teacher-to-student interaction. When students engage and collaborate with their peers, they will enjoy the class more and ultimately benefit more from online learning. In this course, you'll examine how to effectively map out, design, and leverage a range of techniques to get your students interacting online. You'll explore the different types of barriers to engagement (social, motivational and cultural) and develop a plan to overcome these barriers using online learning tools. Finally, you'll learn how to design lessons that incorporate dynamic online discussions and activities that will keep your students engaged all year long.

TECX 512 Tech Tools for Teaching and Learning 3 credits

Educational technology used to be an option; now, it's a fundamental reality for most classrooms across the country. However, many teachers feel unprepared for this unprecedented shift in education. How do you design an effective tech-based learning experience? How can you find tools that (a) you can actually figure out how to use and (b) truly make your life easier and your students' learning better? This course gives you the digital tools you need to improve your professional practice and ensure your students actively participate and engage in all aspects of learning. Whether you're teaching in an online or face-to-face setting, you'll learn how to design or find tools that help you (a) personalize and differentiate learning and (b) create rigorous instruction and assessments in an online setting. In addition, you'll establish digital routines and communication practices that will help you create a supportive, collaborative online culture for your students and their families, as well as for yourself and your colleagues. Using the tools from this course, you will be able to prepare powerful, purposeful learning experiences for students in the physical classroom, online classroom, or both!

TECX 513 Developing 21st-Century Skills in a Digital World (K-5) 1 credit

Digital literacy is just one dimension of the kinds of skills students need to succeed in the 21st century. Critical thinking, collaboration, creativity, communication—these are all important skills for students to develop. But how does the prevalence of technology impact students' ability to learn these skills? Is technology merely competition for students' attention, or can teachers use it for pedagogy? And how can teachers keep up with the ever-changing technology landscape? In this course for middle and high school teachers, you will learn how to use technology to develop and refine 21st-century skills in older students, who may or may not already be quite tech savvy themselves. You'll take a close look at 21st-century learning and literacy skills, their relevance to students' development, and their connection to the use of technology. In addition, you'll explore resources and strategies for how to make your lessons fun, hands-on, and relevant and how to grab students' attention through the use of some of their favorite technology. With the knowledge and techniques from this course, you will be equipped to support your students in developing the 21st-century skills they need to succeed in our tech-focused world and workforce. Note: If you have taken the Advancement Courses online course Developing 21st-Century Skills in a Digital World (K-5), we advise you not to take this course because its contents are similar. You may, instead, take one of our other courses in technology.

TECX 514 Developing 21st-Century Skills in a Digital World (6-12) 1 credit

Digital literacy is just one dimension of the kinds of skills students need to succeed in the 21st century. Critical thinking, collaboration, creativity, communication—these are all important skills for students to develop. But how does the prevalence of technology impact students' ability to learn these skills? Is technology merely competition for students' attention, or can teachers use it for pedagogy? And how can teachers keep up with the ever-changing technology landscape? In this course for K-5 teachers, you will learn about age-appropriate activities and technologies for young learners just beginning to develop 21st-century skills. You'll take a close look at 21st-century learning and literacy skills, their relevance to students' development, and their connection to the use of technology. In addition, you'll explore resources and strategies for how to make your lessons fun, hands-on, and relevant and how to grab students' attention through the use of some of their favorite technology. With the knowledge and techniques from this course, you will be equipped to support your students in developing the 21st-century skills they need to succeed in our tech-focused world and workforce. Note: If you have taken the Advancement Courses online course Developing 21st-Century Skills in a Digital World (6-12), we advise you not to take this course because its contents are similar. You may, instead, take one of our other courses in technology.

TECX 515 Making Curriculum-Driven Technology Decisions 3 credits

From administrators to classroom teachers, everyone in K-12 education knows the importance of technology in preparing 21st-century learners. However, when choosing specific technology tools, there's often not a lot of clarity about who makes the decisions or why and how those decisions should be made. So how can schools make decisions that not only take into account teachers' and students' input, but also positively impact academic curriculum and instruction? In this course, you'll begin with a big-picture overview of how to vet different technology platforms, including how to balance district-level concerns and regulations such as FERPA, COPPA, and Section 504. At both the school and classroom level, you'll learn how to align technology decisions with mission and vision, as well as your curriculum and pedagogy. Additionally, you will explore how to leverage teachers' and students' voices in selecting tools and how to create an effective online environment with the tools available. Finally, you'll review core concepts in equity, including the accessibility and adaptability of educational technology. Using the techniques and resources from this course, you'll be able to make informed, well-rounded decisions about what technology will work for your students' needs and unique school setting. This course is offered through Advancement Courses.

TECX 516 Mission Possible: Organizing Your Digital Files, Forms, and Slides 1 credit

Have you ever opened an email from a parent one morning, only to realize that you forgot to answer it several days later? Have you even saved something to your computer and then when you finally needed it, you couldn't find it anywhere? For some teachers, it can be easy to start downloading documents onto your computer and before you know it, you are lost in a sea of digital clutter. Sorting and organizing digital teacher files, lesson plans, and student digital work is not an easy task for some, but luckily there is an array of teacher resources online and strategies that you can implement in your own classroom that can help you declutter your digital workspace. In this course, you will learn about the tools, strategies, tips and tricks that you can use to create and maintain an organized digital workspace. Through this course, you will be able to plan and organize your digital files, forms and slides that best support your professional role. By creating a functioning digital filing system for storing important resources and materials, you will be able to take ownership of your digital space and will never struggle to look for a document again. By the end of this course, you will be able to implement organizational strategies that increase instructional time and planning time, promote productivity, a sense of control and efficacy that will be life-changing for both you and your students! This course is offered through Advancement Courses.