**MASTER OF EDUCATIONAL TECHNOLOGY**
**COURSE CATALOG**
**Fall 2016**

### EDU 900: Tech-Infused Classroom

Explores how the specific technology available to each teacher can be integrated into students' daily learning activities to create a more collaborative learning environment, to improve creativity and critical thinking skills, and to customize and differentiate learning and assessment to meet individual student needs.

### EDU 901: Tech Integration

Focuses on foundational elements of technology integration, including understanding the SAMR Model of Technology Integration and its application to lesson development, using digital tools for enhanced communication with parents and students, building a personal learning network, curating resources for direct instruction, using collaboration tools, using an online "home base," and differentiating instruction using current tools.

### EDU 902: Education in a 1:1 Environment

This course focuses on transforming instruction for a 1:1 class environment. Strategies will be presented for developing daily instructional plans that embed local-level technology into the curriculum content and ISTE standards.

### EDU 903: The Flipped Classroom I

Explores the pedagogical structure and philosophy of the flipped classroom. Investigates the tools, content managements and classroom management skills necessary to teach in a flipped environment.

**EDU 904: The Flipped Classroom II**

Explores flipped and blended learning models and the implementation of such models in the classroom. Focuses on technological and pedagogical implementation, including resource identification and logistical and structural development of flipped classroom environments. Pre-requisite: EDU 903

**EDU 905: Creativity and Innovation**

Explores the philosophy and current research analyzing human innovation and creative processes, especially in an educational setting. Focuses on the use of technology to develop innovative and creative practices and to promote innovation and creativity in concert with state and national standards in the classroom.

**EDU 906: Inquiry-Based Learning**

Inquiry learning is an effective, engaging, and relevant way to tackle the rigor and depth requirements of the new Common Core Standards. In this course, educators will participate in a community of inquiry to explore and co-create knowledge about the subject, practice the methods, and build curriculum to implement inquiry-learning with students.

**EDU 907: Data Collection and Visualization**

Explores the connection between education standards and data collection, analysis, and visualization. Develop strategies for guiding students in the use of technology to collect and visualize data in order to more effectively teach higher-order thinking skills and digital-oriented inquiry activities.

**EDU 908: The Mindful Classroom**

Mindfulness implies attention toward and care for the ideas, beliefs, and feelings of others. This course demonstrates the history of mindfulness in the classroom environment and explores techniques designed to aid defusing and navigating social, cultural, and emotional stressors that can occur in a classroom setting.

**EDU 909: Understanding Today's Students**

This course delves into the powerful societal and technological influences contributing to the development of today's students. As the influences of postmodernism shift our world from rational to experiential problem solving, technology moves us from linear to complex thinking, and collaboration replaces individual responsibility, students are learning in a world that has changed dramatically.

**EDU 920: Learning Management Systems**

Investigate the function, benefits and challenges of an LMS in today's learning environment. Evaluate the best components to choose in building an online-supported course, and identify best practices in managing digital content, activities and collaboration using an LMS. Analyze the current shift in personal instructional practices and student engagement.

**EDU 921: Effective Video Production**

Examines the ways in which video content can effectively deliver instruction to the classroom. Through shooting original content, editing original and existing material, and production, teachers will investigate ways to deliver intended messages in multiple content areas. Connects with the ITSE standards for student learning and creativity.

**EDU 922: Google Tools for Educators**

Examines Google Apps for Educators (GAFE) and explores how these technical / educational tools can aid teachers in developing digital learning resources and methodologies. Students will learn to effectively implement GAFE in classroom instruction and activities to facilitate collaborative, independent, and differentiated learning.

**EDU 923: Computational Thinking and Coding**

Develop an understanding and application of computational thinking concepts for educators. Evaluates offline grade-level appropriate computational thinking activities for students, presents instructional strategies that foster student perseverance, and investigates the basics of coding author applications. Participants will develop an implementation plan for teaching computational thinking and coding.

**EDU 924: Digital Portfolios**

Explores the theory, implementation and use of digital portfolios in the classroom environment as ways to create, maintain, and share knowledge. Provides instructions on digital portfolio technology and tools as well as pedagogical applications for digital portfolios in the classroom.

**EDU 925: Game-Based Pedagogy**

Explores the use of videogames in the classroom environment. Examines pedagogical theory supporting the use of game-based learning, especially in developing critical thinking and creativity skills. Participants will analyze, use, and build games as part of the class.

**EDU 926: Gamification in Education**

Gamification is the use of game design principles and elements in non-gaming environments. This course explores the elements and psychology of gamification as applied to the classroom environment, focusing on the application of these systems, gamification tech tools available for use, and developing gamification systems for classroom use. Pre-requisite: EDU 925

**EDU 927: Multimedia Classrooms**

Learn best practices in efficiently creating and manipulating audio, video and image content for the classroom. Investigate and evaluate options that provide cutting-edge technical and educational solutions to educators, empowering them and their students to develop authentic, engaging, and relevant digital learning.

**EDU 928: Emergent Educational Technologies**

Survey emerging technologies that will have applications in the classroom environment. Students will study educational technology integration and the "ed tech" business model and how implementing new technologies will impact the classroom.

**EDU 929: Social Media for Educators**

Explores the use of social media as an educational tool to enhance the learning environment and to create connected learning communities. Examines social media platforms such as Twitter, Diigo, LinkedIn, Google+, and more. Examine pros and cons for various social media platforms.

**EDU 931: Digital Storytelling**

This course will research and define digital storytelling and its application to the classroom. Presents technology tools for compliance with and integration of PA Core Technology Standards into curriculum. Provides instruction and practice in creation of digital storytelling projects.

**EDU 932: ePublishing**

This course will appraise the impact of ePublishing on learning communication and information transfer. Identify and examine the capabilities of ebook formats, understand the visualization of data and gain an understanding of copyright and publishing issues.

**EDU 933: Virtualizing the Library**

Instructs K-12 librarians to be responsive to digital shifts in education. Examines platforms, entry points and services to grow and sustain digital environment libraries. Focuses on assessing each school's unique needs and designing online library environments unique to the structure of individual educational systems.

**EDU 940: Reading Pedagogy (Across Disciplines)**

Explores reading strategies across all content areas for grades 4-12, emphasizing data mining to understand reading levels, text selection to address different learning levels, and approaches to teaching reading suitable across all content areas and disciplines.

**EDU 941: Writing Pedagogy (Across Disciplines)**

Explores strategies for teaching writing across all content areas for grades 4-12, emphasizing key writing skills in the writing process model and technology tools that can be used to develop, practice, and sustain those skills.

**EDU 942: Common Core Elementary Math**

Facilitates an understanding of how the mathematical practices and standards of the National Common Core and PA Core impact the design and delivery of math instruction at the elementary level. Investigates the use of formative and summative assignments to personalize instruction and deliver meaningful interventions.

**EDU 943: Nonfiction and Content Reading (K-6)**

Facilitates a deeper understanding of Pennsylvania's Common Core English Language Arts (ELA) standards and presents effective teaching and learning strategies using non-fiction and content reading for grades K-6, as well as how to apply student work protocols, cross-curricular instruction, and targeted feedback to formatively assess and plan further instruction while leveraging the range of technology available to teachers.

**EDU 944: Google Apps for Science**

Examines how the Google suite of tools can be applied to the science classroom using the SAMR model as a pedagogical model. Demonstrates how students can learn to apply the scientific method utilizing Google Apps for Education to aid in solving problems, conducting research, and facilitating communication.

**EDU 945: "Doing History" Digitally**

"Doing history" is a social studies pedagogical method that asks students not only to think about history, but to replicate the conditions and means under which histories are made. This class examines interactive tech tools that will aid social science teachers in "doing history" and understanding the processes that make history happen.

**EDU 946: American History Teaching Tools**

Examines digital and non-digital methods of organizing and presenting American history, focusing on content organizational strategies, Common Core standards, and essential question development.

**EDU 947: Conflicts in Social Studies Teaching**

This course will guide educators in the appropriate and effective use of academic controversy, common perception, and "myth" in the social studies classroom. Participants will be guided in the development of higher order thinking and discovery-based units of instruction while learning how to both use and challenge commonly held perceptions in history, geography, and sociology.

**EDU 949: Tech in Secondary English**

Examines the use and function of integrative technology in the Secondary English classroom. Explores current trends in educational technology and focuses on the implementation of technology in alignment with Common Core standards for Secondary English.

**EDU 950: Tech in ELL**

Addresses the use of technology as a tool to enhance language acquisition associated with English Language Learners/ing (ELL). Presents background knowledge of the learner, technology tools to assist in achieving academic and social goals, and how to design assessment and adapt activities to match student age and cognitive levels.

**EDU 951: Tech in World Language Studies**

This course helps teachers integrate technology into the World Language classroom. Technology strategies will be presented that spark relevant and engaging activity ideas, with emphasis on using technology to enhance activities that help students improve ACTFL proficiency levels. Technology-based assessment options will also be explored.

**EDU 952: Tech in Secondary Math**

This course will analyze the benefits of available technology for secondary math instruction and assessment. Formative and summative assessment tools will be compared. Online remediation and practice in the mathematics classroom will be investigated and critiqued.

**EDU 953: Tech in Health Education**

Examines the use and function of integrative technology in the middle and high school health and physical education classroom. Explores current trends in educational technology and focuses on the implementation of technology in alignment with the standards set forth by the Best Practices document published by SHAPE America.

**EDU 954: Special Topics in Educational Tech**

Special topics courses offered on an irregular basis to enhance the curriculum in the Educational Technology area.

**EDU 960: iPads in Education**

Explores the broad applications and utility of the iPad as a classroom teaching device. Practical instruction provides strategies and skills for effective classroom integration.

**EDU 961: iPads in Education II**

Building off the practical skills developed in iPads in Education, this course focuses on the collaborative application of iPad tools and apps to enhance delivery of instruction and curriculum, including but not limited to screencasting, greenscreens, timeline and mind-mapping, and iTunesU.
Pre-requisite: EDU 960

**EDU 962: iPads for Special Education**

Examines the design of instructional strategies and creation of learning networks to enhance the development of digital skills for learners with special needs. Explores resources for differentiating instruction and monitoring learner progress, with a view toward optimizing tablet applications that support learners with special needs.

**EDU 963: Chromebooks in Education**

Explores the benefits and limitations of the Chromebook and facilitates the development of classroom management techniques designed for the 1:1 classroom. Investigates topics applicable to a Chromebook-based classroom environment, including project-based learning, cloud computing, the flipped classroom, Web 2.0 solutions, Google Apps for Education, content management systems and screencasts.

**EDU 966: Google Earth in the Classroom**

Presents innovative strategies for the alignment of Google Earth activities with grade-appropriate ELA, STEM and ISTE standards. Engages in research and discussion about how Google Earth can serve as a cross-curricular teaching tool. Investigates both the fundamentals of Google Earth, including its creation, navigation, street view and sky views, as well as in depth exploration of custom features.

**EDU 967: Microsoft Office 365 Tools**

Explores the Office 365 tools available to educators for collaborative learning and personalized instruction in both classroom and online settings. Explore information sharing and collaboration strategies using Outlook, Delve, OneDrive, O365 Video, and Sway. Utilize Office Mix interactive learning platforms for formative assessment and personalized learning.

**EDU 598: Educational Research and Design**


**EDU 599: Master's Project on Action Research**