**TECHNOLOGY INTEGRATOR (CE)**

**CE 5010 Leadership & Management (3 Credits)**
This course will focus on the role and functions of instructional leadership through information and technology management in P-12 Schools. The topics covered will include library and technology instruction, collaboration, planning, and assessment of programs. We will also look at the developments and trends in libraries and technology and how it impacts information-centered organizations. Topics include strategic planning, ethics, and advocacy. Also offered as LM 5010.

**CE 5040 Technology & Innovation (3 Credits)**
This course is designed to provide School Library Media Specialists, Technology Integrators, and other educators with hands-on experiences with innovative technology and the effects on the 21st century classroom. Current and emerging digital tools will be explored. Other topics covered include collaboration, teamwork, and programming in P-12. Also offered as LM 5040.

**CE 5120 Integration of Digital Technology into Common Core Standards (3 Credits)**
This instructional technology course is designed to provide technology educators, School Media Specialists, K-12 educators, and administrators with an understanding of ways current and emerging technologies can be used to facilitate teaching, learning, and managing instruction. Discussions will focus on issues, trends, and current uses of technology in K-12 education. Sessions will focus upon gaining experience integrating digital technology within the Common Core Standards, evaluating web 2.0 tools, exploring video resources, and designing technology enhanced lessons utilizing digital storytelling for K-12 curriculum integration.

**CE 5140 Electronic Portfolio Development and Assessment (3 Credits)**
This course is designed to investigate the principles of assessment educational technology that relate to the design, development, and assessment of electronic portfolios. Students will learn about the history, types, components, process, delivery, presentation, and assessment of electronic portfolios. Student will be expected to define the assessment approach, construct an electronic portfolio, and collaboratively design assessment tools that will be used to evaluate electronic portfolios. Additional areas of study in the course may include the influence of educational policy on the implementation of electronic portfolios, the role of the electronic portfolios in professional development and recertification, or innovate technologies used in electronic portfolio development.

**CE 5200 Netcourse Instructional Methods (4 Credits)**
This course prepares teachers to become online course instructors. This intensive course introduces the pedagogy and methodology of online teaching while guiding each participant through the modification of an existing semester or year-long online high school course. Participants read and discuss required educational articles and book chapters, develop new content for their courses, prepare instructional resources and collaborate with their classmates in group projects. Experienced course facilitators monitor each participant’s progress and act as a mentor and a resource.

**CE 5310 21st Century Teaching and Learning (3 Credits)**
Educators need to integrate technology into their curriculum to transform student learning and meet the goals of the 21st Century. To succeed in today’s information-driven academic environment, students need to know how to find, use, manage, evaluate and convey information efficiently and effectively. This includes not only knowledge of technology, but the ability to use critical-thinking skills to solve problems within a technological environment. Teachers wrap 21st Century Literacy skills into lesson content using a variety of strategies. This course helps educators plan and assess effective technology teaching methods, incorporate technology into any discipline, and develop key accountability and assessment strategies. In this six week course, educators wear both a “student hat” and a “teacher hat” as they use digital technology and communication tools to solve an information problem. Educators experience how to use technology as a tool to research, organize, evaluate and communicate information as well as develop a fundamental understanding of the ethical/legal issues surrounding the access and use of information. This valuable, first-hand experience demonstrates the essential technology skills students need to succeed in the 21st Century.

**CE 5320 The Web-Enhanced Classroom (3 Credits)**
The Web-Enhanced Classroom is a six week course that uses technology to enhance traditional face-to-face (f2f) instruction. Online material is viewed as an extension of the classroom, and traditional lectures or classroom activities are linked with enhancements such as virtual tours, WebQuests, real-time information, maps, pictures, streaming video, audio clips, and open source course components. Web-extended classrooms allow learning to happen in an interesting and exciting way. This course provides teachers with the opportunity to develop a complete unit of study for a web-extended classroom and view other units created by peers. The unit of study is developed using the internet and includes information about open course portal components, while the educator learns how to efficiently and effectively search the web for resources. The topic for the unit of study is of the educator’s choice; some resources will be provided through virtual tours of websites.

**CE 5330 Blended Teaching and Learning (3 Credits)**
A hybrid course combines face-to-face instruction and web or computer-based learning. Common features of hybrid courses will be explored including the delivery of the syllabus, effective online lectures, readings and assignments on web pages; discussions and presentations through online message boards, e-mail and chat; interactive tutorials and labs; and on-line assessments. By taking advantage of web-enhance instruction, less in-class time can be spent on mundane tasks and more time can be spent on collaborative, flexible and meaningful activities that incorporate all student learning styles. In this six week course, teachers determine what aspects of their course are best suited to presentation online, create new approaches to communicating with students and create active independent learning experiences for students. Using computer-based technologies, instructors use the hybrid model to redesign some lecture or lab content into new online learning activities, such as case studies, tutorials, self-testing exercises, simulations, and online group collaborations.
CE 5340 Web 2.0, Collaborative Instruction (3 Credits)
Web-technologies are shaping education in ways that have only been dreamed about before the advent of Web 2.0. The new web enhances teaching practices and student learning because new tools allow the user to publish and interact in ways never before possible. In Web 2.0 learners become consumers of information and need to become critical readers and viewers, ready to hit the edit button, in the age of new literacies. Educators must teach and model methods in which ideas and products can be published on the Internet. Web 2.0 provides the ability to work collaboratively across the virtual environment enhancing literacies such as communication skills and global awareness which has the effect of bringing down classroom walls. In this six week course, participants explore the tools of Web 2.0 while participating in activities involving some of those which are more widely accepted in educational environments. This course demonstrates how Web tools can generate new and exciting learning experiences for students of all abilities and learning styles. The course will offer participants ideas to help them think differently about technology and how it can be used to strengthen student’s critical thinking, writing, reflection, interactive learning and meta-cognition.

CE 5350 Capstone: Teaching Online (3 Credits)
Moving from teaching in a face to face environment to teaching students online is not simply a matter of changing mediums; it also means changing instructional methodologies. In this six week course, participants will have the opportunity to experience online teaching by partnering with an online master teacher in an established middle or high school online course. Through observation, reflection and actively participating in the online classroom environment the participant will first partner with the master teacher to deliver instruction, and then will fully assume online classroom responsibilities.

CE 5560 Special Topics in Computer Education (1-3 Credits)
An in-depth study of a particular topic, contemporary issue or concern. The course is taught by a specialist within the field being studied or, as an alternative methodology, a faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

CE 5580 Special Topics in Web-Based Learning (1-3 Credits)
This course explores the integration of technology across various disciplines and topics. Instruction is offered in an asynchronous format. Action research projects, based on instructor approval, are assigned and reviewed through an independent guided learning contract. Projects, readings and Web links are assigned based on research topic and discipline. Since topics vary, the course may be repeated.

CE 5800 Practicum in Educational Computing (1-3 Credits)
Designed to allow students to pursue, in depth, a personal interest in the field of educational computing. Students working with a faculty advisor will design and carry out an individual project that applies the knowledge and skills gained in the classroom to a real problem in their home district. Projects, which will vary with individual student interest, may consist of original research, curriculum development, programming original courseware, etc. The final report must be approved by the faculty advisor. Offered according to demand.
Prerequisite(s): ED 5030.

CE 5910 Independent Study (1-3 Credits)
Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. An opportunity for an in-depth study of a problem in the field of education. Consent of a faculty supervisor and department chair is required.

CE 5960 Technology Educator Teaching Internship (1-12 Credits)
The teaching internship is to provide the student with a supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience through applying knowledge learned in previous course work to the on-the-job situation. Commitment includes a negotiated number of hours per week. Supervision is by the institution or agency concerned and by PSU faculty.