Using Technology to Enhance Content-Area Learning

Canter®

GRADES K–12   GRADUATE CREDIT: 3 SEMESTER HOURS

Educators strive to develop their students as self-directed and creative thinkers; increase engagement in the classroom; deepen their students' understanding of content-area concepts and skills; and provide meaningful, authentic educational experiences to support and extend learning. Technology can help achieve all of these goals when integrated into content-area instruction. In this course, educators design technology-infused projects that motivate students and help them to meet specific curricular standards. They explore strategies for using technology to develop learning experiences that foster students' creativity and independence as learners. Educators also examine developmentally appropriate ways of using multimedia and Internet technologies to bring concepts to life and foster interdisciplinary connections that enhance learning across the curriculum.

This course is designed for K–12 classroom teachers, lead teachers, content-area teachers, curriculum coordinators/developers, special educators, instructional coaches, and department chairs.

COURSE TOPICS

- Technology integration—starting with standards promoting self-directed learning with technology

- Supporting creativity with authentic instruction

- Enriching learning experiences with technology

- Using technology to help diverse learners

- Accessing content technology and assessment of problem-based learning (PBL)

- Social networking and online collaboration

- Digital storytelling

COURSE OUTCOMES

By the end of the course, educators will:

- Develop a personal GAME plan for learning about technology and the NETS-T standards.

- Develop a lesson that incorporates technology to support creative thinking in an authentic, content-based learning situation.

- Explore the relationships among self-directed learning, creative thinking, technology integration, and content standards.

- Investigate how technology functions as tutor, mind tool, and conversation support.

- Construct a lesson plan integrating technology to increase student engagement and enrich the learning experience.

- Analyze online resources for customizing instruction to meet the needs of diverse learners.

- Evaluate the role of technology in addressing various instructional factors as described in a learning scenario.

- Select and implement various assessment formats using technology.

- Collaborate with colleagues to develop an understanding of problem-based learning (PBL) and address concerns related to implementing PBL in the content areas.

- Create a content-area, problem-based learning activity that integrates technology to support student learning.

- Explore appropriate social networking and online collaboration tools and develop a learning activity that incorporates those tools to support content learning.

- Develop a learning activity that incorporates digital storytelling to support student content learning and analyze the impact of digital storytelling on student engagement, learning, and assessment.

METHODS OF ASSESSMENT

This course provides numerous opportunities to apply research-based concepts and theory to practical teaching situations. Assessment is conducted in the following ways:

- **Activities** are short assessments that help educators explore concepts and make connections between the content and their teaching practice. Some activities are ungraded but serve to prepare educators for other graded assignments. Any ungraded activities are clearly marked as such.
- **Dialogue Summaries** allow educators to share ideas about the course content with other teachers, then ask them to analyze and summarize the discussion, and then describe how their understanding of the topic has been enhanced or expanded.
- **Applications** assist educators in applying the theories, concepts, and strategies to their teaching practice.
- **Quizzes** provide educators with instant feedback on their understanding of the course material. There are three quizzes, each reviewing several sections of content.
- The **Final Reflection** requires educators to synthesize the content and reflect on their key learnings throughout the course.

COURSE FORMAT AND MATERIALS

Course texts, websites, and journal articles help facilitate learning and transfer theory into practice. Video programs feature interviews with nationally recognized education experts. Classroom scenes provide a view into the classrooms of master teachers who demonstrate the strategies taught in the course.

This course is offered in an online format. Educators access the course content via an online classroom. The course textbook is shipped to educators, but the video programs and other resources are available within the online classroom. Educators are required to participate in virtual discussions with fellow educators via a discussion board. Assignments are submitted through the online classroom.

The online course includes:

→ Access to the online classroom for:

- Using Technology to Enhance Content-Area Learning

→ Access to the video programs in the online classroom as well as a backup DVD:

- Laureate Education, Inc. (Executive Producer). (2009). *Using technology to enhance learning*. Baltimore: Executive Producer.

→ The course textbook:

- Cennamo, K.; Ross, J.; and Ertmer, P. (2010). *Technology integration for meaningful classroom use: a standards-based approach*. Belmont, CA: Wadsworth, Cengage Learning.

→ Access to the other required readings

USING TECHNOLOGY TO ENHANCE CONTENT-AREA LEARNING

SYSTEM REQUIREMENTS FOR ONLINE COURSE FORMAT:

- Operating system for PC: Windows® XP, Windows Vista®, or Windows® 7
- Operating system for Mac®: OS X or higher
- Processor: 1 GHz, 32/64 bit or higher
- Memory: Minimum 512 MB of RAM; 1 GB recommended
- Browser: Microsoft Internet Explorer® 6.0 or higher; Firefox® 3.6 (also for Mac®: Apple® Safari® 4 or higher)
- Internet connection: Broadband (DSL, cable modem, or similar) required
- Software: Microsoft Word®, Adobe® Flash® Player 7 or higher (free), Adobe® Acrobat® Reader® version 8 or higher (free)
- Monitor resolution: 1280 x 800 pixels or higher

Note: If you are using a Macintosh®, please be sure to download Mozilla® Firefox® 3.6. It's free, and the download should take only a few minutes at **www.mozilla.org**.

Trademark Information

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- Mozilla and Firefox are registered trademarks of the Mozilla Foundation.
- Adobe, Flash, and Acrobat Reader are registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

EDUCATION EXPERTS

Katherine Cennamo, Ph.D.

Dr. Katherine Cennamo has more than 20 years of experience in the design and development of instructional materials in the corporate, educational, and nonprofit sectors. For the past 12 years, she has taught educational technology courses in higher education settings, first as a professor at Purdue University and since 1996 at Virginia Tech. In addition to publishing more than 20 articles, Dr. Cennamo is the lead author of *Real World Instructional Design*. She has a Ph.D. in Instructional Technology from the University of Texas at Austin.

John Ross, Ph.D.

Dr. John Ross is an instructional designer and multimedia developer who designs products and services to help educators better understand how technology integration enhances school improvement planning and data-based decision making. In his former roles as senior research and development specialist at Edvantia, he spearheaded the launch of their online professional development environment, reaching more than 5,000 educators in Tennessee. He has authored numerous articles and reports on technology integration and frequently speaks on the topic.

Peggy Ertmer, Ph.D.

Dr. Peggy Ertmer is professor of educational technology in the Department of Curriculum and Instruction at Purdue University. Her scholarship focuses on the impact that student-centered instructional approaches and strategies have on learning. Dr. Ertmer earned a Ph.D. in Curriculum and Instruction from Purdue University, an M.A. in Special Education–Learning Disabilities from Cardinal Stritch College, and a B.A. in Elementary Education from the University of Denver.

Vicki Davis

Vicki Davis teaches technology-focused topics to ninth–12th-grade students. She is the co-creator of the Flat Classroom Project, a global, hands-on, technology-based collaborative project for middle school and high school students. In 2008, she and her ninth-grade students received the BBC OpenSim Pioneers award and were filmed by the BBC. She was named by the London Times as a Top Edublogger for her blog, Cool Cat Teacher Blog and has received recognition from multiple organizations for her work in technology integration.

Arnie Abrams, Ph.D.

Dr. Arnie Abrams is the director of the Applied Multimedia Unit and professor of computer science at Southern Oregon University. He has more than 25 years of experience making technology accessible to teachers. He has given workshops on multimedia and digital portfolios to school districts around the world. His presentations at NECC, TCEA, FETC, CUE, and NCCE have drawn capacity crowds for several years. Dr. Abrams' highly visual presentations are known to be practical and lively.

ABOUT CANTER

Canter, a subsidiary of Laureate Education, Inc., is committed to serving the educational community with high-quality, graduate-level courses that blend research-based theory with practical strategies. Canter began with one groundbreaking guide on managing behavior in the classroom and, more than 35 years later, has helped more than 300,000 educators address the most critical issues in education while advancing their careers.

FOR MORE INFORMATION

For more information about Canter graduate-level courses, visit www.Canter.net or call 1-800-669-9011.

ABOUT OUR PARTNERSHIP

Canter offers its courses in partnership with Walden University, allowing you to benefit from Canter's quality curriculum in a self-paced format, while earning graduate credit from a leading accredited university.* The course curriculum is developed and designed by Canter in collaboration with national education experts, while graduate credit is granted through Walden University, which assesses student work. Credit may be applicable for certification renewal and/or salary advancement.† Course credit may be transferable with prior approval from the university providing your advanced degree or planned program.

Walden University

The Richard W. Riley College of Education and Leadership at Walden University is a **National Council for Accreditation of Teacher Education (NCATE)**–accredited college dedicated to enhancing educator effectiveness. As a recognized standard of excellence in professional education for the preparation of teachers, administrators, and other pre-K–12 school professionals, NCATE accreditation ensures the college has met rigorous national standards set by the profession and members of the public.

The college, named for the former Secretary of the U.S. Department of Education, was identified by *U.S. News & World Report* as having the largest online graduate program in education by enrollment (May 2010). Walden students were awarded the fourth most TEACH Grants to students nationwide in 2010–2011, according to the U.S. Department of Education. The choice of more than 53,000 students and alumni, including more than 80 state teachers of the year, the college is also a proud partner of the National Education Association (NEA) Academy and a year-round sponsor of the National Association for the Education of Young Children (NAEYC).

Walden University is accredited by The Higher Learning Commission and a member of the North Central Association, www.ncahlc.org. Canter and Walden University are both subsidiaries of Laureate Education, Inc.

*Prospective Washington state students are advised to contact the Office of the Superintendent of Public Instruction at 1-360-725-6275 or prof.educ@k12.wa.us to determine whether Walden's programs in the field of education are approved for teacher certification or endorsements in Washington state. Additionally, teachers are advised to contact their individual school district as to whether this program may qualify for salary advancement.

†It is each student's responsibility to check with his or her state/district and evaluate and understand any requirements related to the use of individual courses for any purpose.