Department of Early Childhood, Elementary, and Middle Level Education
EDU 2022-003: Teaching and Learning with Technology in Classrooms

Instructors:	**Dr. Kiran Padmaraju**	**& Mrs. Shilpa Maheshwari**
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Office Hours:	**MW – 2:00 – 4:00 pm; T – 4:00 – 6:00pm**	**M – 12:00 -1:00 pm; TR – 9:00 – 11:00 am**
Class Meetings:	**MW – 9:30 to 10: 45 am**	**Class Location - Buzzard Hall 1430**

UNIT Theme: Educator as creator of effective educational environments, integrating diverse students, strategies, societies, subjects, and technologies.

Course Description: (2-1-2) This course, based on the national and state educational technology standards is designed to prepare teachers to integrate technology into the curriculum. This course will focus on the effective use of technology in teaching and learning.

Course Purpose: EDU 2022 is structured to offer teacher candidates opportunities to:

1. Practice and expand personal use of various kinds of hardware and software.
2. Use technology in the design of curriculum for constructivist teaching and learning.
3. Apply learning theory to evaluate quality technology experiences.
4. Make informed judgments about social and ethical issues involving technology.
5. Develop strategies and commitment to explore new and emerging educational technologies.

Textbooks:
Lever-Duffy, J. & McDonald, J.B. (2011). *Teaching and learning with technology* (4th ed.). Boston, MA: Pearson Education, Inc.

Fewell, P. & Gibbs, W. (2009). *Microsoft office for teachers* (3nd ed.). Columbus, OH: Merrill Prentice Hall.

Supplemental Materials:
Flash drive

Teaching Models:

The Information-Processing Models

- Information-processing models emphasize ways of enhancing the human being's innate drive to make sense of the world by acquiring and organizing data, sensing problems and generating solutions to them, and developing concepts and language for conveying them.

Joyce, B., Weil, M., & Calhoun, E. (2009). *Models of teaching*. (8th ed.). Boston: Pearson.

Dispositions: Candidates in the Department of EC/ELE/MLE will exhibit professional ethical practices, effective communication, sensitivity to diversity, the abilities to provide varied teaching practices evidenced in a supportive and encouraging environment.

Standards:
Course requirements and demonstrated competencies are aligned with the following standards:

- Illinois Professional Teaching Standards (IPTS) http://www.isbe.state.il.us/profprep/PDFs/ipts.pdf
- Language Arts Standards for all Illinois Teachers (ICLAS) http://www.isbe.net/profprep/CASCDvr/pdfs/24110_corelangarts_std.pdf
- Technology Standards for all Illinois Teachers (ICTS) http://www.isbe.net/profprep/CASCDvr/pdfs/24120_coretechnology.pdf
- Nets Standards for Teachers: ISTE National Technology Project: http://www.iste.org/Content/NavigationMenu/NETS/ForTeachers/2008Standards/NETS_for_Teachers_2008.htm
- NETS Standards for Students: ISTE National Technology Project: http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS_for_Students_2007.htm

SPA Standards Alignment (Special Professional Association Standards) based on _____

- ACEI (Association for Childhood Education International) program standards for elementary teacher preparation http://www.acei.org/Synopsis.htm and http://www.acei.org/ncateindex.html
- NAEYC (National Association for the Education of Young Children) NAEYC http://www.naeyc.org/accreditation/next_era.asp

Course Outcomes

Students will be able to

1. Review research studies of the effects and impact of technology on learning.
2. Evaluate ethical, legal and social equity issues pertaining to the impact of technology
3. Apply terminology of the field, including Web 2.0
4. Use, explore, and apply telecommunications opportunities: html editors as appropriate for teaching professionals, course management systems, videoconferencing, webcasts
5. Use and apply word processing, database, presentation and spreadsheet programs relating to teacher administration and the curriculum of elementary and middle schools.
6. Create multimedia learning options, especially interactive whiteboard (SmartBoard) tools and applications
7. Review and apply criteria to evaluate and select blogs, wikis, Web sites, educational software.
8. Design and produce appropriate technology supported instruction.
9. Appreciate the development of computer technology over time and implications of this history for instruction.
10. Practice strategies for continuous updating of computer literacy for teachers and students.
11. Practice ergonomics and proper care of computers and peripherals.
12. Design and maintain your own professionally appropriate website.

COURSE REQUIREMENTS	**NETS Standards for Students**	DEMONSTRATED COMPETENCIES	ALIGNED STANDARDS
PRODUCTIVITY	NETS 6	Performance includes: Creation, editing, evaluation of appropriate professional documents in text and multimedia. Application of spreadsheet, database, presentation, and communications programs to classroom tasks. Focus is on demonstration of computer literacy, integration literacy and fluency, information literacy and fluency..	IPTS 1, 5, 6, 8p TSIT 1, 2, 5, 8 LASIT 1 Dispositions: PEP, PTSL
WEB PRESENCE AND WEB 2.0	NETS 2,3, 4,5	Performance includes: Review and evaluation of active, teacher maintained, classroom Web pages. Creation and use of a personal professional Web site, posted to individual student's account on the EIU pen server. Creation and use of selected personal accounts with such programs and participatory services as a blog, wiki, WebCT discussion board, del.icious, flickr, digg, twitter, google docs., etc. Focus is on participation in and creation of cyber environments for education.	ACEI 3e, 5d, NAEYC 2 IPTS 5, 6, 7, 9 TSIT 6 LASIT 2 Dispositions: PEP, EC
CURRICULUM INTEGRATION	NETS 1, 2, 3a.b.c.d. 4a.b.c.d., 5	Performance includes: Creation of a themed curriculum sequence based on a student selected essential question appropriate for the classroom. The themed curriculum project may include: Introduction and rationale based on Internet research, site evaluations, podcast, Inspiration concept map, Excel graph, webquest evaluated or created, video evaluated or created, Turning Point (student response system) , handheld activities, SmartBoard activities. (Instructors may select stand-alone curriculum applications outside of the themed sequence.) Focus is on integrating and implementing several classroom technologies to investigate and present a single area of inquiry for diverse learners. Elements will be posted to the student's EIU (pen) website using file transfer protocol.	ACEI 2, 3, 4, NAEYC 1, 4 IPTS 1, 2e, 4e,f,g,h, 6 TSIT 3 LASIT 2 Dispositions: PTSL, SDE
DIGITAL CULTURE, CONTEXT AND IMPACT	NETS 1d, 4c, 5, 6	Performance includes: Analysis of turning points and trajectories in computer history, present trends, terminology, review of research, understanding and committing to strategies for keeping abreast of developments in educational	ACEI 1, IPTS 4q, 6 Dispositions:

		technology. Focus is on critical understanding of the role of technology in today's global society and attention to outside influences on classrooms.	SDE
DIGITAL CITIZENSHIP	NETS 4, 5a.b.c.d.	Performance includes research and commitment to the welfare of society and of all children and youth.. Student may investigate the following technology-based issues: Assistive technology, copyright (RIAA & MPAA) and creative commons, net safety, privacy and security, AUP/CIPA and appropriate use, digital divides (economics, gender, race), job loss, Internet addiction, cyber bullying, social networking, gaming, real vs.virtual libraries, virtual classrooms and online coursework, artificial intelligence, corporate controls, technology and health, technology and environment. Focus is on teachers as leaders by modeling best practice in educational technology.	ACEI 3, NAEYC 2 IPTS 2b, 3, 5f, 5k, 6, 9 TSIT 4, 7 LASIT 3 Dispositions: PEP, SDE
PARTICIPATION	NETS 2, 5	Performance includes display of professional dispositions, thoughtfulness, communication, and attention to course projects, assignments, and inquiries, prompt submissions, perfect attendance. Focus is on evident desire for excellence in teaching and learning with technology in classrooms.	ACEI 5, NAEYC 5 IPTS 9, 10, 11 TSIT 2 Dispositions: PEP, EC
Evaluations	NETS 5,6	The students will demonstrate their content knowledge of effective integration of technology in the classroom by completing assessment tools.	IPTS 1,3,4,6,8 ICTS 1,2,3,4,5,7,9 ICLAS 1A, 1B, 1G, 3F NAEYC 4b ACEI 3.1,3.2,3.3,3.4,3.5 Disposition: EC

CORE ASSIGNMENTS	DESCRIPTION	POINTS/DUE DATE	WEIGHTS
PRODUCTIVITY	Instructor will select classroom related projects created with word processing, publishing, spreadsheet, database, presentation, graphics, and communications programs.	**See WebCT**	10%
WEB PRESENCE AND WEB 2.0	Instructor will select classroom related projects: Review of active, teacher maintained, classroom Web pages. Creation and use of a personal professional Web site, posted to individual student's account on the EIU pen server using a file transfer protocol. Creation and use of selected personal accounts with such programs and participatory services as a blog, wiki, WebCT discussion board, del.icious, flickr, digg, twitter, google docs., etc.	**See WebCT**	15%
CURRICULUM INTEGRATION	Students will develop a themed curriculum sequence based on a student selected essential question appropriate for the classroom. Instructors will select elements of the themed curriculum project. Included may be: Introduction and rationale based on Internet research, site evaluations, podcast, Inspiration concept map, Excel graph, webquest evaluated or created, video evaluated or created, PPT with Turning Point (student response system) , handheld activities, SmartBoard activities, computer generated books. Instructors may select stand-alone curriculum applications outside	**See WebCT**	15%

	of a themed sequence.		
DIGITAL CULTURE, CONTEXT AND IMPACT	Reviews of research and related literature in technology education.	**See WebCT**	5%
DIGITAL CITIZENSHIP	Research and discussion projects in ethical issues in technology education.. Topics include: assistive technology, copyright (RIAA & MPAA) and creative commons, net safety, privacy and security, AUP/CIPA and appropriate use, digital divides (economics, gender, race), job loss, Internet addiction, cyber bullying, social networking, gaming, real versus virtual libraries, virtual classrooms and online coursework, artificial intelligence, corporate controls, technology and health, technology and environment, technology and global community. Elements of course projects must adhere to copyright law and use with permission. Research and discussion may take place on WebCT, a class blog, a class wiki, etc.	**See WebCT**	5%
PARTICIPATION	Performance includes display of professional dispositions, thoughtfulness, communication, and attention to course projects, assignments, and inquiries, prompt submissions, perfect attendance. Focus is on evident desire for excellence in teaching and learning with technology in classrooms. **This course requires active participation by completing projects as assigned by the due dates. For late assignments, points will be deducted.** **Only two absences will be excused based on prior notice. For other absences, 5 points per absence will be taken off from the final points to determine the final grade.**	**See WebCT**	10%
EVALUATIONS	Instructor will select appropriate midterm and final exam formats. **Final Exam: Tuesday, Dec. 11 - 8:00-10:00 a.m.**		10%
Optional Assignments	Students will complete optional assignments as determined by the instructor.		30%

Optional assignments:
Handhelds, WebCT Discussion board, podcasting, PowerPoint Producer, digital storytelling, emerging technologies, Student Response Systems, digital photography, Paint, resumes, newsletters, and cover letters

Grading Scale: A = 92%-100%, B= 84%-91%, C= 72%-81%, D= 62%-71%, F = Below 62%

Web site for assistance with APA questions:
http://owl.english.purdue.edu/owl/resource/560/01/

Course Topics

I. Integrating Technology into the Curriculum
- **A. Information literacy and terminology**
- **B. Identifying today's digital kids**
- **C. ISTE standards**
- **D. Technology throughout the school and community**

II. Networks, communications, Internet and World Wide Web
- **A. Components of communications systems**
- **B. Browsers and search engines**
- **C. Web 2.0, social networking and K-8 teaching and learning**
- **D. Web impact on teaching and learning**

III. Productivity tools
- **A. Looking at operating systems and how they differ**
- **B. Teacher authoring and student authoring of documents and presentations**

1. Different programs for different purposes
2. Expense, availability, and ease of use
C. Video authoring and editing in K-8 schools.

IV. Hardware for Educators
A. System units, ASCII, bits, bytes, input, output, storage
B. ASCII, bits, bytes, MBs, GBs, binary code

V. Digital Media for the subject areas
A. Use and creation of digital media
B. Inquiry curriculum, learning cycle, project based models
C. Examining models of best practice

VI. Assistive Technology
A. Curriculum adaptations and accommodations
B. State services
C. classroom devices to meet special needs

VII. Evaluation
A. Evaluation of information sources
B. Evaluation of student learning

VII. Ethical considerations throughout educational technology

Academic Integrity

"The Department of EC/ELE/MLE is committed to the learning process and academic integrity as defined within the Student Conduct Code Standard I. "Eastern students observe the highest principles of academic integrity and support a campus environment conducive to scholarship." Students are expected to develop original and authentic work for assignments submitted in this course. "Conduct in subversion of academic standards, such as cheating on examinations, plagiarism, collusion, misrepresentation or falsification of data" or "submitting work previously presented in another course unless specifically permitted by the instructor" are considered violations of this standard."

Student Success Center

Students who are having difficulty achieving their academic goals are encouraged to first contact their instructor. If needing additional help, please contact the Student Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Student Success Center provides individualized consultations. To make an appointment, call 217-581-6696, or go to 9th Street Hall, Room 1302.

EDU 2022 References

Bissell, J., Manring, A., & Rowland, V. (2001). *Cybereducator: The internet and world wide web for K-12 and teacher education* (2nd ed.). New York: McGraw-Hill.

Bloom, B. S. (1956). *Taxonomy of educational objectives. Handbook I: The cognitive domain.* New York: David McKay, Co.

Brewer, T. (2003). *Technology integration in the 21st century classroom.* Eugene, OR: Visions Technology in Education.

Dice, M. L., & Goldenhersh, B. L. (2002). *How to create a professional electronic portfolio.* Dubuque, IA: Kendall Hunt.

Howell, J. H., & Dunnivant, S. W. (2000). *Technology for teachers: Mastering new media and portfolio development.* New York: McGraw-Hill.

McKenzie, J. (1999). *How teachers learn technology best.* Bellingham, WA: FNO Press.

McKenzie, W. (2002). *Multiple intelligences and instructional technology: A manual for every mind.* Eugene, OR: International Society for Technology in Education.

Provenzo, E. F. (1999). *The internet and the world wide web for preservice teachers.* Needham Heights, MA: Allyn & Bacon.

Richardson, W. (2006). *Blogs, wikis, podcasts, and other powerful web tools for classrooms.* Thousand Oaks, CA: Corwin Press

Roblyer, M. D. (2006). *Integrating educational technology into teaching* (4th ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.

Sharp, V. (2002). *Computer education for teachers: Integrating technology into classroom teaching* (4th ed.). New York: McGraw-Hill.

Standley, M. & Ormiston, M. (2003). *Digital storytelling with PowerPoint.* Eugene, OR: Visions Technology in Education.

Tapscott, D. (1999). *Growing up digital: The rise of the net generation,* New York, : McGraw-Hill.

Tiene, D., & Ingram, A. (2001). *Exploring current issues in educational technology.* New York, NY: McGraw-Hill.

Worchester, T. (2003). *50 quick & easy computer activities.* Eugene, OR: Visions Technology in Education.

Willard, N.E. (2002). *Computer ethics, etiquette, and safety for the 21st century student.* Eugene, OR: International Society for Technology in Education

Helpful Websites:
The Horizon Report (2007 edition) http://www.nmc.org/pdf/2007_Horizon_Report.pdf
EDUCAUSE http://www.educause.edu
ISTE http://www.iste.org
Thinkfinity http://www.thinkfinity.com
Kathy Schrock's Guide for Educators http://school.discovereducation.com/schrockguide/
WebQuests http://webquest.org
Edutopia http://www.edutopia.org

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Students with Disabilities: If you have a documented disability and wish to discuss academic accommodations, please contact the Office of Disability Services at 581-6583.

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