

Department of Early Childhood, Elementary, and Middle Level Education
**EDU 2022 (Section 002): Teaching and Learning with
Technology in Classrooms**

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Tuesday: 9:30 – 10:30 am
Thursday: 9:30 – 10:30 am
Or by appointment

Office Phone: 217-581-5728 (leave message)
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Class Meeting: Tuesday and Thursday (8:00 – 9:15 am)

Room: Buzzard Hall 1430

Prerequisite: Passing score on the CEPS technology proficiency.

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:

Shelly, G., Cashman, T., Gunter, R., & Gunter, G. (2008). *Teachers discovering computers: Integrating technology and digital media in the classroom* (5th ed.). Boston, MA, Thompson Learning.

Fewell, P. & Gibbs, W. (2006). *Microsoft office for teachers* (2nd ed.). Columbus, OH: Merrill Prentice Hall.

Web site for assistance with APA questions:

<http://owl.english.purdue.edu/owl/resource/560/01/>

Supplemental Materials: Flash drive (minimum 2 GB)

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><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.pdfhttp://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 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
- VIII. Ethical considerations throughout educational technology

EDU 2022 References

- Bissell, J., Manning, 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>

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.

Instructional Strategy

An emerging perspective of learning (sometimes referred to as Web 2.0) includes engagement, collaboration, and distribution. The instructor is a facilitator of learning. Students must be actively engaged in their learning, work with others and share what they have learned. That perspective is the foundation of this class. Students will work collaboratively to learn and share what they have learned.

Web-based Activities

Supplemental web site (www.scsite.com/tdc5)

Tentative Assignments

1. PARTICIPATION: Each student must bring 2 questions to class that they have generated from reading the text, or other materials. These questions should be asked in class for full credit (2 pts for written questions plus up to two additional points for asking questions in class).
2. AUTOBIOGRAPHY: each student will submit an autobiography with a recent photo to the instructor based on guidelines provided in class.
3. ARTICLES: Each group must select one article from professional education journals (related to education technology) to review, write a one-page summary and share with class.site (guidelines will be provided in class):
4. GROUP PRESENTATIONS: Each student will work in a group of 2-3 others to investigate and present on various topics each weeksite (guidelines will be provided in class):
 - a. One-page summary
 - b. Demonstration of use
 - c. Educational implications
5. INDIVIDUAL WEB PRESENTATIONS: Each student will develop and share their personal web page, created on their EIU site (guidelines will be provided in class):
6. ONLINE ASSESSMENT: Each chapter has an online practice test. Take the test, print it out and submit by the due date. Each student must submit a printed copy of his/her test, but they may be completed collaboratively.(www.scsite.com/tdc5)
7. CURRICULUM UNIT: Pairs of students will develop a unit lesson that uses technology to meet a content and an ISTE standard. site (guidelines will be provided in class)
 - Substitute: students may participate in a school-based technology project at a local elementary school developing podcasts (3-4 hours total). This visits must be scheduled between 1-3 pm between September 21 – October 16.

Tentative Assignment Values:

• Participation points (2 questions per class; 30 @ 4 points each)	120
• Autobiography	25
• Article presentations	25
• Group presentations (6 @ 25 pts)	150
• Web Page development and presentation	50
• Read chapter and take online tests (8 @ 20 pts each)	160
• Curriculum Unit (or participate in School-based project)	<u>100</u>
	605

Grading Scale:

A = 95%-100%, B= 85%-94%, C= 75%-84%, D= 65%-74%, F = Below 65%

Revisions of assignments

All assignments will be evaluated and returned to the student. Any student may choose to revise a completed assignment and resubmit based on feedback for a new grade.

Flexibility

There may be some revision of assignments and topics based on the capability and relevance of topics to enrolled students. There may also be unique opportunities that arise during the course that necessitate revisions in course topics, schedules and assignments.

Communication Devices

You must silence your phones when in class. If the instructor hears a phone ring in class, it must be for him and he will answer it. DO NOT use any communication devices in class that is not a part of a class activity or it will be "collected".

Note on Written Material

The quality of written material produced by students should reflect the highest standards of scholarship. Please obtain the APA Manual and study the style of written material in that manual. Ask others to edit your "first draft" and proofread your final draft before turning the assignment in. ALL written work must be typed (double-spaced) on a computer and printed on good quality paper. Substandard written work (errors in spelling, grammar, sentence construction, etc.) will be returned for revision prior to evaluation. PLEASE SAVE ALL ASSIGNMENTS ELECTRONICALLY!! This will ease the revisions you will make.

Each student is expected to adhere to the University's policy and professional ethics concerning the use of copyrighted material and/or material created by a fellow professionals, other students, or other individuals when she/he is completing assignments for the course.

Thursday Presentations

Each student will work in a small group (4 students) to become an “expert” on several topics during the course and become proficient on the rest. Each group must sign up for one topic in each major category for presentations on Thursdays. Specific details will be provided in class.

Hardware/Software tools

- Digital camera
- Video camera
- SmartBoard
- Podcasting
- Scanner
- Wiki
- Blog
- Other (get approval from instructor in advance)

Digital Media presentation

Google Docs (web-based tools)

- Gmail
- Calendar
- Documents
- Reader
- Sites
- Web
- Google Earth

Web-based Resources

- Flickr
- Delicious
- Survey Monkey
- Teacher Blog sites
- Youtube/Teachertube
- Apple Learning Interchange
- WebQuests
- Other (get approval from instructor in advance)

Educational Organizations

- Partnership for 21st Century Skills
- Annenberg Institute for School Reform
- National Commission on Teaching and Americas Future
- Education Commission of the States
- Other (get approval from instructor in advance)

Education Professional Organizations (see p 517)

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| IRA | NSTA | NCSS |
| ASCD | NSDC | NAGC |
| CEC | NMSA | NREA |
- Other (get approval from instructor in advance)

Tentative Class Schedule

The schedule includes general topics and assignments. More detail will be provided on WebCT and in class. Please check WebCT calendar for specific due dates.

This schedule is tentative and may change due to pace of instruction.

Week of August 24

Tuesday, August 25

In Class: MindStyle Indicator
Campus walkabout for photo shoot
Assignments: Complete Profiler on line
Take WebCT workshop via Gregg Computer Lab

Thursday, August 27

In Class: Web 2.0/Teaching and learning with technology (video)
Review presentation guidelines

Week of August 31

Tuesday, September 1

In Class: ISTE standards
Intro to video and editing

Thursday, September

In Class: video editing
DUE: Chapter 1 online test

Week of September 7

Tuesday, September 8

In Class: Web design

Thursday, September 10

In Class: Presentations: Hardware/software tools

Week of September 14

Tuesday, September 15

In Class: web design
Discuss guidelines for digital media project

Thursday, September 17

In Class: Presentations: Hardware/software tools
DUE: Chapter 2 online test

Week of September 21

Tuesday, September 22

In Class: Webquests
DUE: Chapter 2 online test

Thursday, September 24

No Class – work on digital media project

Week of September 28

Tuesday, September 29

In Class: Webquests

Thursday, October 1

In Class: Presentations: Google Docs

DUE: Chapter 3 online test

Week of October 5

Tuesday, October 6

In Class: Ethics/Copyright

Thursday, October 8

In Class: Presentations: Google Docs

DUE: Chapter 4 online test

Week of October 12

Tuesday, October 13

In Class: Midterm exam

Thursday, October 15

In Class: Presentations: Web-based resources

DUE: Chapter 5 online test

Week of October 19

Tuesday, October 20

In Class: Assistive Technology

Thursday, October 22

In Class: Presentations: Web-based resources

Week of October 26

Tuesday, October 27

In Class: Evaluating web resources (BIAS on web sites)

Thursday, October 29

In Class: Presentations: Education reform sites

DUE: Chapter 6 online test

Week of November 2

Tuesday, November

In Class: Student initiated topics

Thursday, November

In Class: Presentations: Professional Education Organizations

DUE: Chapter 7 online test

Week of November 9

Tuesday, November 10

In Class: Student initiated topics

Thursday, November 12

In Class: article presentations

Week of November 16

Tuesday, November 17

In Class: digital media presentations

Thursday, November 19

In Class: digital media presentations

DUE: Chapter 8 online test

Week of November 23: Thanksgiving Break

Week of November 30

Tuesday, December 1

In Class: digital media presentations

Thursday, December 3

In Class: personal web page presentations

Week of December 7

Tuesday, December 8

In Class: personal web page presentations

All revised assignments must be completed by this date

Thursday, December 10

In Class: review for final

Reflections on the course

Week of December 14

Tuesday, December 8

In Class: FINAL EXAM
