Instructional Technology Tools

ETT 530 - Section PKC1
Fall, 2008
Thursdays, 4:30pm - 8:30pm
Deer Path West Middle School (Lake Forest)

Instructor: Wynter Rose, Ed.D.
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Office Hours: Before and after class, and by appointment

Catalog Description

Advanced use of common as well as new and emerging instructional technology software and hardware tools. Three semester hours.

Texts

There are no required texts for this course. Several texts and articles will be recommended to students during the semester as we investigate the topics of media tools.

While significant class time will be dedicated to working hands-on in specific activities, students are required to have access to a suitable computer with appropriate software outside of class hours. The instructor will review the kinds of hardware and software that will be needed for the course during the first class meeting.

Finally, each student is expected to provide his or her own portable media storage devices (e.g., a flash drive, external USB hard drive, writable CDs/DVDs, etc.). Such devices will allow the student to save work created on the computers during class time, and to transport projects to and from class. As digital media can require extensive storage space the instructor recommends the largest and fastest device the student can afford. Students may also need to purchase consumable materials (e.g., digital video tapes, CD/DVDs, labels, etc.).

Course Objectives

ETT 530 is a graduate-level course focusing on what we do and do not know about the processes and practices of using software and hardware tools to support learning. Some of the central questions to be addressed throughout this course are: What makes a good IT software tool? How do these tools relate to learning? How well can the techniques and construction of these tools be used to understand the processes of learning? What is the educational value of a given tool? How do the various useful tools relate to each other?

Course Goal & Objectives

The goal of ETT 530 is to provide students with an analytical and design framework to understand the adoption of IT software and hardware tools, through a combination of classroom and individual / small-group experiences and hands-on exercises that can be put to use in classroom instruction and the creation of self-standing or supportive interactive instructional materials.

By the end of this course you will be able to:

1. Make advanced use of common software tools to develop instructional materials
2. Select instructional technology tools that solve specific instructional problems
3. Evaluate the effectiveness of instructional technology tools
4. Teach others to use an instructional technology tool
5. Create a job aid or other instructional support materials
6. Develop a plan for building skills in instructional technology tools
7. Analyze advanced uses of instructional technology tools in business and academic contexts

Prerequisites

Together we will establish the learning needs of the whole class. If you feel you need more basic instruction with the hardware and software tools utilized for the assignments, please see the instructor. Also information about additional resources where IT tutorials are available will be given to students.

During the course you will be expected to work with different multimedia hardware (e.g., a computer and various software). You should feel comfortable working with computers and multimedia hardware, and have a willingness to explore and try new things. Access to equipment and software outside of class (whether in your school building, at a district resource, or at home) is a necessity, since it will not always be possible to finish all assignments during scheduled class time. Having such access is also extremely help for review, further practice, and skill development.

The instructor will also strive to provide multiple potential resources for each class activity and assignment; for example, suggestions of different software titles, some of which may be free or low-cost. Purchasing multimedia equipment and/or software is not an expectation of this course. Be aware, though, that students pursuing advanced study in Instructional Technology often do invest in personal computers, multimedia software titles, digital cameras and camcorders, and other equipment and supplies. Many students will find that such purchases are, in terms of a degree and overall career, an excellent investment.

Structure

Classes begin at the scheduled times. Each student is expected to be on time and to remain until the entire class (for whole group efforts), or their assigned activities (for individual, partner, or small group projects), are completed. Readings, when assigned, are expected to be completed <u>prior</u> to the class day in which the material will be covered.
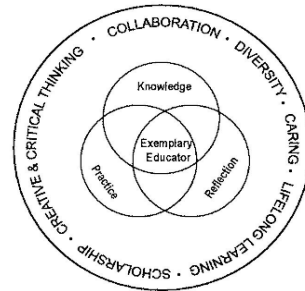
The computers in the classroom/laboratory have sufficient free hard disk space for students to work on all class activities/projects; however, due to the shared nature of the room students should not expect that anything left on a computer will be there beyond the end of class meeting. Therefore, students <u>must</u> back up their work (preferably to two different media), and take their backups with them, at the conclusion of each class. Creating these backups may take a while as well, and students should plan their class time accordingly so that all backups are complete prior to the absolute ending time of each class meeting.

Conceptual Framework for Northern Illinois University

NIU Conceptual Framework

This course ascribes to a conceptual framework for all courses offered by the College of Education and other programs at NIU that prepare professional educators. During the semester, you should be aware of what we do in this course that may reflect components of the following statement:

The NIU community of learners builds *knowledge*, *practice*, and *reflection* to produce exemplary educators. The community encompasses scholars, education professionals, and pre-service teachers in an interaction that develops the strengths that embody excellence in education. These strengths include creative and critical thinking, scholarship, and caring. Application of these strengths emerges through the collaborative efforts of a diverse community which supports lifelong learning.

In keeping with the Conceptual Framework, this class will be based on sound learning theory and conducted to encourage the dynamic exchange of ideas between all enrolled students. The instructor will use and encourage written and/or verbal feedback and a variety of instructional techniques appropriate to the topic and goals of the course, including the following:

- whole group sharing of readings, group activities, and individual projects;
- small group discussion and sharing on various topics related to technology;
- hands-on technology use;
- teacher and student facilitation and presentations;
- research and written assignments;
- feedback through group and one-to-one interaction, E-mail, Blackboard, or other means to meet individual needs.

Evaluation

Activities	Point Value
Assignment 1 - Newsletter	10
Assignment 2 - Tech Tool Presentation	10
Blog, Wiki & Social Network participation	10
Assignment 3 - Job Aid	10
Assignment 4 - Final Project	20
8 weeks of participation	<u>40</u> (5pts. Per session)
	100 TOTAL

Participation
Active participation in class presentations, discussions, and activities is a must! This class is all about hands-on learning, and students are expected to engage fully in the process. Your participation will be evaluated for each session and a total of five (5) points per session will be earned toward your final grade.

Individual Final Project
At the last class meeting of the semester each student will be expected to present a completed final project demonstrating the student's knowledge of emerging technologies and their uses. More details on this project will be given during the semester. This project is worth twenty (20) points.

Grading Scale
There are a total of 100 points possible in this class. Grades will be assigned based on a percentage of the total points earned: A = 90% - 100%; B = 80% - 89%; C = 70% - 79%; D = 60% - 69%; F = 59% or less.

Policies

1. Students must e-mail all assignments to the instructor at wyn1025@aol.com by 1 pm on the due date. You will receive an e-mail response to confirm it was received by the instructor. You should name your files with your last name and assignment number.
   For example:
   > Rose-1.doc
2. <u>ETT 530 is an active participation class.</u> Students must be in attendance and actively participate in all class activities (both discussion and activities) in order to receive credit for each class session. Students are responsible to catch up on any material missed during absences, including skills components.
3. <u>Students must come to the each class ready to participate in the activities for that day.</u> There may be certain readings and other assignments that need to be completed prior to each class. Students should be sure to bring their back-up media to each and every class.
4. <u>The work you submit must be your own.</u> Specifically designated group projects are expected to be completed with an equal degree of participation by all group members. If you are found to be cheating on an assignment, examination or demonstration you will fail the course. Please see the section on academic integrity in the university catalog if you are unsure of what constitutes cheating. IGNORANCE OF WHAT CONSTITUTES CHEATING WILL NOT BE AN EXCUSE.

Accommodations for Students with Disabilities

Your academic success is of importance to me. If you have a disability and may require some type of instructional and/or examination accommodation, please contact me early in the semester so that I can provide or facilitate in providing accommodations you may need. If you have not already done so, you will need to register with the Center for Access-Ability Resources (CAAR), the designated office on campus to provide services and administer exams with accommodations for students with disabilities. The CAAR office is located on the 4th floor or the University Health Services (815-753-1303). I look forward to talking with you to learn how I may be helpful in enhancing your academic success in this course.

Academic Integrity

"Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated, for example, if they copy the work of another or use unauthorized notes or other aids during an examination or turn in as their own a paper or an assignment written, in whole or in part, by someone else. Students are guilty of plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students guilty of, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university.

The university has adopted additional policies and procedures for dealing with research misconduct among its students, faculty, and staff. The guidelines, entitled Research Integrity at Northern Illinois University, are available in department offices, in the office of the dean of the Graduate School, and online at www.niu.edu/provost2/facpers/appm/I2.htm, and pertain to the intentional commission of any of the following acts: falsification of data, improper assignment of authorship, claiming another person's work as one's own, unprofessional manipulation of experiments or of research procedures, misappropriation of research funds."

Tentative Schedule

Class   Date   Activities (upon discussion with the class, these activities/assignments may be changed)

#1   Aug 28   Introduction to the class, survey of skill/interests, explanation of assignments, advanced uses of MSWord and art/image software, GoogleDocs
Assignments:
   1. Completing the needs analysis (including page 3)
   2. Adding your profile to the GoogleDoc page (I have added those who e-mailed their profile)
   3. Uploading a new document to GoogleDocs and making me a collaborator
   4. Readings #1 and 2
   5. Technology newsletter
Due Date: September 11

#2   Sept 11   Advanced uses of MSPowerPoint, Blogs, Social Networking (Ning), Wikis
Assignments:
   1. Add a "useful link" to the class wiki
   2. Contribute to the discussion on the wiki home page
   3. Read 2 out of the 4 blogging articles which can be found in the NIU library databases and comment on each article on the class blog, then comment 2 more times on other people's comments (a discussion)
   4. Contribute to the class discussion on the Ning social network site
   5. Readings #3 & #4 listed on class syllabus
   6. Confirm your topic with me & view the presentation dates on the class wiki
   7. Download GoogleEarth
(begin MSPowerpoint Tech tool presentation assignment)
Due Date: September 25 (presentation due on individual assigned date)

#3   Sept 25   Presentations, Google Applications
Assignments:
   1. Explore http://www.google.com/educators/index.html check out the classroom activities link and the other resources on this helpful site
   1. Create a Google calendar & readings listed on handout
   2. Set up iGoogle
   3. Explore Google Earth, watch tutorials, & readings (e-mail 2 assignments)
   4. Respond on the class wiki on the discussion tab for the tech tool presentation page
Due Date: October 9

#4   Oct 9   Presentations, Video conferencing (Skype), Voice Thread, Podcasting
Assignments:
   1. Make a call to the instructor and transmit a document using Skype
   2. Readings
(begin Job aid assignment, due November 6th)
Due Date: October 23

#5   Oct 23   Presentations, Virtual Environments
Assignments:
   1. Register with Second Life and complete orientation
   2. Readings
   3. Job Aid posted on class wiki & e-mailed to instructor
Due Date: November 6

#6   Nov 6   *Second Life online class meeting
                   Assignments:
                          1. Read assigned article for next week's discussion
                          2. Contribute to the discussion on the class wiki about Second Life
                   (Begin Final Project, due December 11th)
                   Due Date: Article read by November 20, Final Project due by December 11

#7   Nov 20   Presentations, discussion of emerging technology tools and their uses
                   Assignments:
                          1. Readings #5 & #6
                          2. Final Project

No Class –Nov 27 (Thanksgiving)

#8   Dec 11   Final Project Presentations, wrap-up

*Online meeting time will be announced. You must have access to high-speed Internet to participate, if there is a problem with access, please let the instructor know ASAP.

All assignments are due on the due date by 1 PM.
All assignments will be e-mailed to wyn1025@aol.com, unless otherwise noted.

Assignment 1: Technology Newsletter
Due Date: September 11

Procedures: Create a one page (single or double-sided) newsletter designed to inform your staff of emerging technology information related to the grade levels in your school. Possibly include helpful educational websites, tech tips, lesson plan ideas that integrate technology, introduce a new technology tool or highlight software available in your school.

Use MSWord or other approved word processing program
Include:
 -a layout that utilizes columns or a table
 -use a header
 -at least one self-created or manipulated clipart image using an art program such as Paint, Adobe Photoshop, etc.
 -at least one clipart image from a free source (without copyright restrictions)
 -at least one image created using WordArt or the Drawing tool bar shapes
 -at least one screen shot image
 -at least four sections or features included

Worth 10 points
Resources:
-How to create a screenshot on a PC: http://www.microsoft.com/windowsxp/using/setup/tips/screenshot.mspx
-How to create a screenshot on a MAC: http://www.intermedia.net/support/kb/default.asp?id=923
-Help with using MSWord: http://www.tutorialized.com/tutorial/Basic-to-Advance-Level-Word-Tutorial/10187

Grading Rubric:

Requirements	Possible Points	Points Earned
Includes a layout that utilizes columns or a table	1	
Includes use a header	1	
Includes at least one self-created or manipulated clipart image using an art program	1	
Includes at least one clipart image	1	
Includes at least one image created using WordArt or the Drawing tool bar shapes	1	
Includes at least one screen shot image	1	
Images are formatted & layout is correct	2	
Content that informs staff of emerging technology	2	
Total	**10**	

Assignment 2: Instructional Technology Tool Presentation
Due Date: Oct. 9- Nov. 20 (At 1 PM the day before the week assigned to each individual)

Procedures: Create a Microsoft PowerPoint presentation about the uses of a technology tool or software program. You are a teacher or tech-coordinator presenting an instructional technology tool to the rest of your staff. Topic must be approved by instructor via e-mail or face-to-face discussion by September 15th. Some possible topics include Google Earth, Google Sketch Up, podcasting, digital storytelling, Adobe Photoshop, Kidpix, Gradebook software, Inspiration, etc.

At a minimum, these slides must be included:
>   -title
>   -description of tool/program
>   -explanation of its effectiveness as an instructional tool (possibly how it addresses ISTE technology standards)
>   -examples of how it can be used in your instructional setting (lesson ideas, etc.)
>   -related links for tutorials, lesson ideas, articles about the topic, etc.

This assignment will be presented to the class in approximately 10-15 minutes and a 1-page summary of the presentation will be posted for the class
Worth 10 points, 7 for the PowerPoint and 3 for the oral presentation

Resources:
http://www.quasar.ualberta.ca/edpy202/tutorial/PowerPoint/pptBasics/pptBasics.htm#Graphics PowerPoint help

Assignment 3: Job Aid
Due Date: November 6th

Procedures: Create a job aid, instructing the recipient how to complete an advanced task using a technology tool. Provide step by step instructions, utilizing screen shots where needed. Examples will be given in class. This project cannot be on the same topic as assignment #2, the tech tool presentation.

Use MSWord or other approved word processing program
Job aid should be a minimum of 1 page and not more than 4 pages
Topic must be approved by instructor via e-mail or face-to-face discussion by October 15th.
Bring to class a copy of your job aid for each class member

Worth 10 points

Assignment 4: Final Project
Due Date: December 10 (December 11th you will present your project in 2-3 minutes)

Procedures: Create an instructional, online project in the form of a website, wiki, or blog. You will turn in a project design report with a link to your online project or copies of each page of your project if you do not have a website to post it on.

A classroom webpage, wiki, or blog that highlights your knowledge of emerging technologies; A website with job aids for common tasks requested by your staff; A themed unit you intend to teach

The project must be at least 5 pages that are hyper-linked to a main page.

The project design report (one page):

Items	Descriptions
Topic	What is the project about?
Target audience	Who are your learners?
Goal(s) and Objective(s)	What should the outcome of using it be?
Content/Subject matter	What is the subject matter of the project? You may also describe how it can be used for your classroom learning or training need
Learning Domain	Concept, principle, procedure, affective, inter-personal skills, etc…
Creative Treatment	How is this "unique" compared to anything already out there? Describe how you plan to use various computer-supported techniques to visualize and/or objectify knowledge constructs (e.g., concepts that are difficult/complex to explain verbally).
Instructional Strategies	What type of instructional strategies you are going to used in your project – Behaviorist (stimulus and response, shaping), cognitivist (Gagne's events of instruction), or constructivist approach (PBL)

Resources:
http://edutechwiki.unige.ch/en/Pedagogic_strategy Some help with instructional strategies

Worth 20 points

General Readings

#1-Software:The Best of the Basics http://www.education-world.com/a_tech/tech151.shtml
#2-20 Technology Skills Every Educator Should Have http://www.instructor.aviation.ca/content/view/133/71/
#3-7 Things You Should Know About   by Educause
http://www.educause.edu/7ThingsYouShouldKnowAboutSeries/7495
#4 Top 100 Tools for Learning http://c4lpt.co.uk/recommended/top100.html
#5-Just in Time Technology by Jamie McKenzie (The Educational Technology Journal) http://fno.org/jan03/jitt.html
#6-Prospecting for Digital Riches by Jamie McKenzie http://fno.org/mar02/prospecting.html
#7 Digital Age Assessments, Part 1 http://www.techlearning.com/story/showArticle.php?articleID=196605062
   Digital Age Assessments, Part 2 http://www.techlearning.com/story/showArticle.php?articleID=196605168
Assigned articles from Edutopia (George Lucas Educational Foundation) http://www.edutopia.org/tech-integration
Assigned articles from E-Learn Magazine http://elearnmag.org/index.cfm
Educational Benefits of Social networking http://www.sciencedaily.com/releases/2008/06/080620133907.htm

Blog & Wiki Readings

- Colombo, M. W., & Colombo, P. D. (2007). Using Blogs to Improve Differentiated Instruction. *Education Digest: Essential Readings Condensed for Quick Review*. *73*(4), 10-14.

- Botterbusch, H. R., & Parker, P. (2008). Copyright and Collaborative Spaces: Open Licensing and Wikis. *TechTrends: Linking Research and Practice to Improve Learning*. *52*(1), 7-9.

- MacBride, R., & Luehmann, A. L. (2008). Capitalizing on Emerging Technologies: A Case Study of Classroom Blogging. *School Science and Mathematics*. *108*(5), 173-183.

- Chase, D. (2007). Transformative Sharing with Instant Messaging, Wikis, Interactive Maps, and Flickr. *Computers in Libraries*. *27*(1), 7-8, 52-54, 56.

Google Application Readings

- http://www.google.com/educators/index.html check out the classroom activities link and the other resources on this helpful site

iCalendar

- http://teaching.mrbelshaw.co.uk/index.php/2007/02/17/how-to-use-google-calendar-as-a-tool-for-lesson-planning/
- http://webworkerdaily.com/2007/03/22/rock-your-google-calendar-in-18-ways/

Google Earth

- http://www.googleearthcoolplaces.com/ Explore this site, use the links on the right side of the homepage.
- http://www.google.com/educators/p_earth.html Google Earth for Educators intro
- http://gelessons.com/ Google Earth Lessons (this is a great site for new ideas!)

Second Life Readings

- Atkinson, T. (2008). Inside Linden Lab. *TechTrends: Linking Research and Practice to Improve Learning*. *52*(2), 18-21.

- Foster, A. L. (2008). Professor Avatar. *Education Digest: Essential Readings Condensed for Quick Review*. *73*(5), 12-17.

Articles can be found using the ERIC (First Search) database through the NIU library or by the link provided.

Resources

My school website: http://www.westpark.cps.k12.il.us/
Wikispace for this class: http://rosetech.wikispaces.com/
GoogleDocs website: http://docs.google.com/
Blog site for this class: http://rosestechnology.blogspot.com/
The Ning Site for this class: http://rosenetwork.ning.com/
Skype (video conferencing tool): http://www.skype.com
Voice Thread: http://voicethread.com

Blogging & Social Networking

https://www.blogger.com A free blog hosting website
http://edublogs.org/ A free blog hosting website
http://wordpress.com/features/ A free blog hosting website
http://www.infosearcher.com/ An excellent & informative example of a blog about emerging technologies
http://classblogmeister.com/ A free blog hosting website
http://www.ning.com/ Ning, a social networking site
      http://www.necc2008.org/
      http://globaleducation.ning.com/
http://www.youtube.com/watch?v=6a_KF7TYKVc Social Networking explanation

Wikis

http://www.wikispaces.com/ A free wiki hosting website
http://couros.wikispaces.com/emerging+technologies A good example of a wiki about emerging technologies
http://www.classroom20.com/forum/topic/show?id=649749%3ATopic%3A96384 A good example of a wiki developed by a tech coordinator

Virtual Environments

http://secondlife.com/ A virtual community
http://tappedin.org/tappedin/ A community of education professionals

Free software useful in teaching

http://www.getpaint.net/index.html Similar to Photoshop
http://juicereceiver.sourceforge.net/ Podcast tool
http://www.teach-nology.com/downloads/ Educational software

Sources for Current Trends in Educational Technology

http://caret.iste.org/ Caret (Center for Applied Research in Educational Technology)
http://www.cln.org/ CLN (Community Learning Network)
http://people.uis.edu/rschr1/et/blogger.html Educational Technology News Blog
http://www.ncrel.org/sdrs/areas/te0cont.htm North Central Regional Educational Laboratory: Technology
http://elearnmag.org/index.cfm Education-Learn Magazine
http://www.educause.edu Educause
http://www.techlearning.com/ TechLearning-articles on current trends in teaching with technology

Lesson Plans that Integration Technology

http://www.microsoft.com/education/lessonplans.mspx Microsoft's Lesson Plan search
http://nschubert.home.mchsi.com/education/edfind.html Telecollaborate site for Online projects
http://www.teachertube.com/ Teacher Tube
http://www.internet4classrooms.com/integ_tech_lessons.htm Internet 4 Classrooms
http://www.teach-nology.com/ Great site for teachers

Software Tutorials

http://www.tutorialized.com/
http://www.guidesandtutorials.com/
http://www.instructor.aviation.ca/content/view/133/71/ 20 Skills educators should have & where to get help
http://movies.atomiclearning.com/k12/tutorials Many are free