LTEC 4100 Syllabus

Instructor: Dr. Gerald Knezek
Office: DP 193D
Office Hours: 10:00 - 11:30 on Mondays & Fridays, and a half hour after class as time permits
Phone: 940-565-4195
Email: gknezek@gmail.com
Course Website: http://courseweb.unt.edu/gknezek

Course Overview/Objectives

This survey course will introduce preservice educators to techniques for integrating technology into daily classroom activities. Topics covered in this course will be areas that impact or have the potential to impact educators working in the classroom environment. Special emphasis will be placed on constructing relevant and appropriate instructional environments in specific content areas such as the four foundation areas required in most US states (math, science, social studies, and English & language arts, with emphasis on emerging areas of national importance such as STEM (science, technology, engineering, and mathematics).

The objectives for this course include the opportunity for participants to be introduced to computer applications in education relevant to student learning in k-12 classroom environments. In addition students should gain knowledge in the selection of educational software including tools, instructional programs and apps, hardware ranging from desktop systems to mobile devices, and training ranging from initial usage to ongoing professional development. The participant should feel comfortable modeling an educational presentation system; understand the integration of technology into the classroom and the use of other electronic sources for educational classroom resources. Students will develop a unit plan of instruction and assemble a portfolio of materials on a chosen topic that integrates technology.

Note that although the focus of the course is on integrating technology into classroom teaching and learning, the extension of learning beyond classroom time is major way in which technology can be effective in amplifying the learning resulting from guided classroom activities. The U.S. National Science Foundation has designed this as Out of School Time (OST) learning coordinated In School Time (IST). The lab activities, hybrid classes, home exams, and social networking activities incorporated into this course are designed to provide you with role models for not only bringing the world into your classroom through technology, but also for extending your classroom activities outside the confines of school walls, into the community and the home.

Course Topics

1. Computers in the Classroom: Technology-infused techniques within and beyond the classroom for enhancing learning.

- Purpose: CAI vs. CMI, historical distinctions for instruction vs. managing the business of learning

- Mode: Tutor, Tool or Tutee (and the 4th T of Topic), including MicroWorlds Tutee Mode Learning

- Pedagogy: Sage on stage, guide on the side; informal learning to formalized classroom instruction; alien pedagogy & adventure learning

- Device/System: Multi-station drill & practice to mobile & wearable computers; thumb drives, hard drives & the cloud

2. Technology Integration: What is it and why do we care?

- Models based on removal of barriers

- Models based on proficiency development

3. Standards and Curricula: Do states, nations, or professional associations run the show?

- Educated Citizenry, Foundation Areas, Workforce Priorities such as STEM

- Technology Applications (TA) Texas Essential Knowledge and Skills (TEKS)

- National Standards for Teacher Competencies

- National Standards for Student Competencies

4. Theories of Learning and Models of Technology-Enhanced Learning & Instruction

-Behaviorism: What do Pavlov's dog & Skinner's pigeons have to do with technology & learning?

- Cognitive Psychology: Wertheimer's Sultan, Bruner's 3 ways of knowing; was Chomsky right or Vygotsky & Piaget?

- Information Processing Theory and Algorithmic/Computational Thinking: What do we gain from learning to think like a machine?

- Games and Simulations: With or versus Drill, Practice, Tutorial, Problem-Solving, and Socratic Dialog?

- Active Learning and PBL: Real world problems and engaging technology-based activities.

5. Educational Software and Systems: How should we evaluate them?

- Searching for Educational Resources: Thornburg's 3 Guiding Principles

- Copyright Laws and Educational Technology

6. Telecommunications and the Internet in the Classroom: Are social media a teacher's friend or foe?

- Managing the Technology-Enriched Classroom: Where goes your normal attention as a Millennial student?

- Cyberbullying and Privacy Rights

7. Computer Ethics and Equity: Are learning technologies for the wealthy or for all?

- Technology and Diverse Needs of Learners

- Special Accommodations and the Law

8. Assessment in a Technology-Enriched World

- Rubrics, Badges, and Apprentice Models in our Technology-Enriched World

- Embedded and Authentic Assessment vs. (recently) traditional forms

- Copying, Cut and Paste, Turn it in Tools for all: At what point is student work not their own?

- Portfolios, Integrated Units: Why are Closure and Cumulative Proficiency important?

Course Prerequisites

CECS 1100 (may be taken concurrently with consent of department). If you have not taken this course, it is your responsibility to make sure you learn the prerequisite skills to be successful in CECS 4100.

Course Policies

Attendance and punctuality are professional behaviors expected of educators. Educational technology is not simply "doing computer activities"--it is much more. Hence, you need to participate in scheduled class discussions and learning activities. Since this is a hybrid course, some days will be scheduled as solely class activities, some will require your attendance at lab exercises or other small group activities, and some will require your virtual participation, even if there is no physical face-to-face meeting, from afar. Attendance will be taken most class sessions through roll call or submitted class activities and will count for a significant part of your grade (Approximately 10%). You will not be allowed to make up missed attendances. You are

expected to conform to all policies of the University of North Texas and work within the honor code.

Classroom Etiquette:

Having a classroom with technology in front of us is not the yet the norm in teaching environments. Many of you went through elementary and secondary school with little or no experience in this environment and therefore expectations for proper behavior in computer-enhanced classroomenvironments vary widely. Probably the most important rule of thumb to remember is that your classroom is not a computer lab. The laboratory is 309, across the hall. As a result, in our classroom activities such as printing when someone else in the room is talking, taking leave and returning at your leisure, text messaging your friends, playing solitaire or other games while your instructor or your classmates are presenting during class time, surfing the web to pass the time while daydreaming -- or generally focusing on any individually important behaviors (such as homework for another class) -- are improper behaviors and will result in deductions from your attendance / participation grade.
In order to make our classroom environment more conducive to learning for everyone the following behaviors are expected:

1. Students are expected to observe classroom etiquette and common courtesy toward the instructor and fellow classmates. Pagers, cell phones, electronic devices, game playing, checking/sending email and surfing the Internet are not allowed during class except during classroom activities that may involve these activities under instructor guidance. Your instructor and your fellow classmates will frequently be distracted by these activities. More importantly, it is our experience that students who are checking their email, making flight arrangements on the Internet, playing solitaire, finishing their assignment that was due at the beginning of the class, etc. -- miss the most important information that is said during class (and ask the same question that was just answered -- only a few minutes later).
2. Please turn off your monitors when class begins until you are instructed to turn them on.
3. Please pay attention during the question/answer sessions at the beginning of class. Repeatedly asking the same question that was just answered to the whole class, for another student, will be counted as a tardy/ attendance deduction.
4. Assignments are due by the beginning of the class and should be uploaded to Moodle before the beginning of class. If paper is required for the assignment, it should be prepared (including stapled or clipped) before coming to class and submitted in room 308 when requested by the instructor (expect this to be at the very beginning of class). Binding all parts together is your responsibility; one point will be deducted for assignments submitted in loose parts. Any assignment submitted electronically DURING FACE to FACE class time will receive no more than 50% credit. (Compare this with 80% for late submission, see below.)
5. If your assignment is not ready to be turned in when due, please complete it after class and turn it in as a late assignment after class or during the following 2 weeks for up to 80% credit. I should not hear the printer running in our classroom after class begins, except when we are working on in-class activities. It is impolite and distracting behavior to get up during the middle of class to walk to the printer, especially when someone (the instructor or another classmate) is speaking. Printing during class lectures and discussions will result in attendance / participation

deductions.

Requirements/Grading

Chapter Readings: You are responsible for the chapter assignments even if they are not covered in lecture.

Workload for CECS 4100: Like all college courses, expect to spend 2-3 hours outside of class for each hour spent in class. In other words, you should expect to spend 6-9 hours each week outside of class completing readings, assignments, and hands-on computer time in addition to the 3 hours you are in class or scheduled hybrid activities.

There will be 3 exams plus 5-6 assignments and a final project (portfolio). Several in-class and/or take home practice exercises/activities will also be included. I will keep your highest 2 exam grades (20 points total). No makeups or late exams will be allowed, so schedule your attendance accordingly.

Hold on to your in-class practice exercises/activities as proof of the quality of your class participation in the event your letter grade is borderline at the end of the course. Plan to bring a packet of these with you to the day of your final project presentation, since it is usually that day when class participants look at their scores to date and decide whether or not to take the final exam. Class participation is expected (possibly including debates) and will count for 10% of your grade.

Class requirements will be weighted as follows:

Exams (best two of three at 10 points each)		20%
PowerPoint supporting topic selected (A1)		10%
Finding Resources supporting your final unit of instruction (A2)	Checklist	10%
Student sample - newsletter or brochure & rubric for your integration unit topic (A3)		10%
Website supporting your unit of instruction (A4)	Website Rubric	10%
Multimedia instruction segment (Probably in annotated / branching Powerpoint) (A5) or alternatives such as Logo programming, Energy Monitoring Activity or Digital Fabrication		5% 5% 5%
Final unit of instruction and portfolio of materials supporting your unit, in notebook / paper plus web site or comparable (approved) format	Checklist	15%

Class Attendance/Participation (Including Discussions/ In-Class Exercises / Debate(s))		10%

Note: For fall 2014, a new (experimental) assignment 1 will be introducing educational survey administration and analysis. This will make the total points available for this semester 110.

Important: Late assignments will receive a maximum grade of 80%. Late assignments are those that are turned in after the beginning of class on the day in which they are due. However, turning in a late assignment is much better than not turning in one at all. No late assignments will be accepted more than 3 weeks late and none will be accepted after the end of dead week (last week of classes prior to final exams). Assignments beyond these late submission deadlines will receive a grade of zero (0). Most assignments will be submitted (at least in part) on paper and in the Moodle content management system (CMS). The latter provides a time stamp of the date, hour and minute submitted.

GRADES

Grades will be calculated by the following scale:
A = 90% or more
B = 80 to 89.4%
C = 70 to 79.4%
D = 60 to 69.4%
F = Below 60%

Required Materials

Textbook: Integrating Educational Technology into Teaching (4th Ed. or higher), by M. D. Roblyer, Prentice Hall.

a USB pen drive - bring one with you every week.

Please complete the Student Information Sheet for Learning Technologies.

EEO/ADA Statement

EEO/ADA: The University of North Texas does not discriminate on the basis of race, color, religion, sex, age, national origin, disability or disabled veteran status in its educational programs, activities, admissions, or employment policies. Please see me outside of class to make any arrangements involving special accommodations.

Cheating: Plagiarism and cheating are serious offenses which may be punished by any of the following:
1. failure on the exam, project or paper

2. failure in the course, or
3. expulsion from the University of North Texas

For more information on EEO/ADA or academic dishonesty, please refer to your current Undergraduate Catalog.

Updated: Sept. 7, 2014

Many course materials adapted from and used by permission of Dr. Rhonda Christensen