

Syllabus Fall 2008 CIEP 447

CIEP 447: *Technology Enhanced Instruction I*

Fall 2009

Course Time: M 7:00- 9:30

25 E Pearson Room 710

Instructor: David Ensminger, Ph.D. Phone: 312-915-7527
Office: Lewis Towers, Room 1136 Email: densmin@luc.edu
Office Hours: by Appt.

Texts:

David Jonassen, et. al. Meaningful Learning with Technology 4th ed. Merrill/Prentice Hall ISBN: ISBN 9780132565585 (DJ)

Thom Markham, Project Based Learning Handbook (Hardcover) 2nd, Buck Inst for Education , ISBN:974034304 (Handbook)

Linda Torp, Problems as Possibilities Problem-Based Learning for K-16 Education 2nd ed. Association for Supervision & Curriculum Development, ISBN: 871205742 (T&S)

Additional readings to be provided the instructor. (AR)

Social Justice Foundation: Technology has become a constant in our society. More and more jobs require that workers have technology competencies. These competencies extend beyond the basic skills of operating technology. We must prepare all students to use technology as a tool for problem solving, organizing and analyzing data, communication, and production. These new cognitive skills will allow students to be more successful in college and in the workforce

Conceptual Framework:

Our Conceptual Framework – through its components of service, skills, knowledge, and ethics – guides the curricula of School of Education programs in the preparation of “professionals in service of social justice.” These dimensions of the conceptual framework also serve as the foundation to the School of Education [Conceptual Framework standards](#) – standards that are explicitly embedded in major benchmarks across all SOE programs. This course emphasizes the following framework standard:

- CF5: Candidates demonstrate technological knowledge and skills which enhance education.

Diversity

Student learning styles and cognitive processing abilities, and cultural background and experiences contribute to their methods of problem solving. This class focuses on developing PBL and technology integrated lessons that encourage and even facilitate students using their unique differences while learning specific content objectives.

Technology: This course will use variety of software programs and approaches to technology integration as a foundation for enhancing student learning and developing lessons to teach both content and NETS*S.

Course Description: This course will focus on two main themes. First is the development of instruction using problem based and project based designs. The second is the integration of computers and software to enhance these problem based and project based instruction. Specific emphasis will be placed on using common software packages to meet the National Educational Technology Standards for Students (NETS*S).

Course Objectives: As a result of this course, students will be able to:

- o Recall the NETS*S for grades P-12
- o Recall the levels of proficiency for measuring the NET*S
- o Describe the process for developing problem based instruction
- o Recall and apply NetQ design processes for developing instructional lessons that integrate technology into lesson/unit plans to meet NETS*S, and content standards.
- o Develop lesson and unit plans using problem based or project based instructional models that incorporate computers and common software programs (e.g. Excel, Access, Inspiration) to meet NETS*S and content standards.
- o Develop lesson plans using problem based or project based instructional models that incorporate computers and software programs specific to a content area. **CF5: Technological Knowledge/Skills**
- o Develop a professional workshop to teach the use and application of (Excel, Access, or Inspiration)
- o Use understanding by design processes to develop a stand alone learning object

Course requirements:

Problem Construction Assignment: Using inspiration software or C-mapping software you will construct a map of the problem that would be used in your first lesson plan. The assignment requires you to build a map that deconstructs the problem into the core principles and relevant learning goals and objectives as well as identifies the standards associated with the learning goals and objectives. Additionally, address the 3C and 3R components in your problem construction.

Lesson plan Assignment (CF5: Technological Knowledge/Skills): During the semester you will create a lesson plans using PBL framework for the lesson and that integrates technology using the NTeQ model. The lesson plan must be an original lesson plan that uses the PBL framework and NTeQ model. You will use the problem you constructed in problem construction assignment for this lesson plan. You must determine the content and NETS*S objective for this study and report the associated content and NETS*S standards. You must integrate at least one type of software other than presentation software (e.g. PowerPoint) or word processing software (e.g. Word) Examples software you can use are Inspiration, Spreadsheet, Databases, video software, audio software or explore one of the many software programs presented in the Jonassen book. The lesson plan must also provide links and rationale for how software will be used in both fulfilling the content and NETS*S. This lesson plan should be detailed enough to allow any teacher working in the same grade to understand, and implement the lesson plan with little effort.

Knowledge by design project: This is a two part project that involves the story boarding a stand alone learning object and students can choose to either develop a learning object using PowerPoint as the software or create a slowmation video.

PowerPoint Learning object:

This project will involve the use of the elaboration theory or cognitive flexibility theory to construct a stand-alone instructional product (learning object) using digital resources (graphics, audio, and video) this can include website and web resources. You will construct the instructional product using PowerPoint. Specific Guidelines will be posted on Blackboard.

Slowmation: This project involves the use of digital photographs and slowmation processes to create a slowmation learning object. The object must include narration, pedagogical prompts, and learning objectives and assessments. Specific Guidelines will be posted on Blackboard

Storyboard: For each of the above projects you will need to bring to class a storyboard of the learning object or slowmation object that provides information detailing the design, content, sequencing and structure of the project. Story board will be reviewed one on one with the instructor during class.

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Participation: Class participation is based on:

- Attendance of all classes, being on time and not leaving early,
- Completing all reading assignments before coming to class, **This is critical for discussion.**
- Meaningful participation is actively participating in class activities and discussions that includes insightful comments, relevant examples, thought-provoking questions, and appropriate responses to the comments/questions of others. Such participation also requires students to be sensitive to their level of participation in relation to others in the class.

Late assignments: I strongly discourage turning in assignments after the due date. Given how some assignments build on one another in the course, turning in assignments late will hinder progress in the course. I will accept late assignments, but will reduce points for late assignments. Additionally, I will provide less feedback and will not as rapidly return your graded assignment to you. If you know in advance that you will be gone when an assignment is due, please plan ahead and submit it early. If you have an unexpected personal circumstance, please talk to me about your concerns with completing course obligations.

Point break down:

Problem Construction	30
Lesson plans	50
Storyboard	15
Knowledge by design project	50
Participation	10
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Total	155

Grading Scale: Percentage of total possible points

94-100	A	77-79	C+
90-93	A-	73-76	C
86-89	B+	70-72	C-
83-85	B	60-69	D
80-82	B -	<60	F

Course Expectations

As this is a graduate level course, I perceive each of you as students, learners and scholars. As such, I expect that you view yourself in the same manner. You have chosen to be here and therefore are responsible for our own behavior, learning, and success. However, as a group we make up a class and as such are a professional and scholarly community. In order to succeed as individuals and as a group we must be willing to agree that all members of the community provide meaningful contributions to discussions and activities. This can include insightful comments, relevant examples, thought-provoking questions, and appropriate responses to the comments/questions of others. Such participation also requires students to be sensitive to their level of participation in relation to others in the group, as well as respect the differences in perspectives, thoughts and ideas.

University Policies:

Academic Honesty

Academic honesty is an expression of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students, and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. The School of Education's Policy on Academic Integrity can be found at: http://www.luc.edu/education/academics_policies_integrity.shtml. For additional academic policies and procedures refer to: http://www.luc.edu/education/academics_policies_main.shtml

Accessibility

Students who have disabilities which they believe entitle them to accommodations under the Americans with Disabilities Act should register with the Services for Students with Disabilities (SSWD) office. To request accommodations, students must schedule an appointment with an SSWD coordinator. Students should contact SSWD at least four weeks before their first semester or term at Loyola. Returning

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students should schedule an appointment within the first two weeks of the semester or term. The University policy on accommodations and participation in courses is available at: <http://www.luc.edu/sswd/>

Harassment (Bias Reporting)

It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias.

In order to uphold our mission of being Chicago's Jesuit Catholic University-- a diverse community seeking God in all things and working to expand knowledge in the service of humanity through learning, justice and faith, any incident(s) of bias must be reported and appropriately addressed. Therefore, the Bias Response (BR) Team was created to assist members of the Loyola University Chicago community in bringing incidents of bias to the attention of the university. If you believe you are subject to such bias, you should notify the Bias Response Team at this link: <http://webapps.luc.edu/biasreporting/>

Course calendar in on the next page

***Course calendar:**

Date	Topic Area	Readings (due on the date listed)	Assignments due
Aug 29	Syllabus, overview of the course, livetext	Syllabus	
Sept 5	LABOR DAY No Class		
Sept 5	Learning and technology NTeQ overview, NETS *S	DJ-1 & 2 AR-1 NETS *S	
Sept 12	PBL Overview, NETS *T	DJ 3 T&S Ch 1 & 2 Handbook (pg 3-10) AR- 2, AR-3 and NETS*T	
Sept 19	Models of PBL and designing a problem Inspiration software	T&S Ch 3, 4, & 5 Handbook (pg 13- 32 & 37-42) AR-4 (3C 3R)	
Sept 26	Inspiration/Mywebspiration and Excel Software	DJ -5 AR-9 Grabe Ch 9	
Oct 3	NTeQ model Lesson plans- Access software	AR-10 (M L Chapters 3 & 4) DJ – 4	Problem Construction Assignment
Oct 10	Mid semester Break		
Oct 17	Assessment in PBL and NTeQ Implementing PBL and NTeQ	T&S Ch 7 Handbook (pgs 45-80) AR- 11 (Assessment in PBL Article) T&S Ch 6 AR-13 (Jumping hurdles in PBL article)	
Oct 24	Knowledge by Design, Slowmation, Windows Movie	AR (Knowledge by Design) AR Slowmation1	Lesson Plan assignment

Comment [ITS1]: For next class Bring in sample objectives or data manipulation explanations for m previous students work and have students make direct connection s to the NETS S this could be a class activity.

Comment [ITS2]: To help facilitate the connection of 3c and 3r to objectives, bring in student samples of objectives and ask students to make connection to the C content and specifically the 3r

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	Maker	Slowmation2 DJ pgs 204-215	
Oct 31	Cog Flexibility and Elaboration Theory Building Learning objects in PowerPoint- Learning by Design	AR-5 (Grabe Ch 7) AR-6 Elaboration Theory Article 1 AR-7 Cognitive flexibility article 1 AR-8 Elaboration theory Article 2	
Nov 7	Story Boarding – Work on Story Board		
Nov 14	Building communities and communicating with technologies	DJ 6 and 7	
Nov 21	Class Work on Project		Storyboard assignment
Nov 28	Class work on project		
Dec 5	Responsible Technology Use, Work on Project Course Evaluation	AR-15 (Grabe Ch 10)	Learning Object Assignment Due Dec 11th

*This calendar is subject to revision depending upon time constraints, instructor preference, and student interests.