CIED 5365 – Technology and Cognition

Department of Curriculum & Instruction

Spring 2018

Required course for the M.Ed. in Instructional Systems Design & Technology

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Online office hours:
Monday & Wednesday
7:00 pm – 8:30 pm
Via Google Hangout or Skype

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Course description

The purpose of Technology and Cognition is to incorporate technology into teaching and learning in relation to the cognitive development in learners. To emphasize learning and instructional theories and instructional techniques for enhancing learners' cognitive development through the use of technology. Students will design and implement lesson plans using advanced technological applications for instruction, based upon best practices in technology and cognition.

Course objectives

After completing this course, you will be able to:

- Explain how theories of behaviorism, cognitivism, and constructivism describe how learning occurs
- Use a concept mapping tool to facilitate learning and assessment
- Recognize benefits and educational uses of different educational technology tools
- Apply specific learning theories to design a lesson
- Create an effective technology-enhanced lesson plan, given lesson-specific instructional objectives
- Evaluate the quality of the lesson plan in a systematic manner.

IDEA objectives

Essential

- Learning to apply knowledge and skills to benefit other or serve the public good

Important

- Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)**.**
- Learning to analyze and critically evaluate ideas, arguments, and points of view.
- Developing skill in expressing myself orally or in writing.
- Learning to apply course material (to improve thinking, problem solving, and decisions).
- Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course.

Required texts

There is no textbook required for this course.

Assignments and grades

The course will be divided into 4 Modules. Each Module description is listed below. In addition, an overview of the course assignments and point values are listed in the table below.

- **Module 1**- In this module, students will be learning theories to inform how learning occurs and how instructions should be designed to facilitate learning processes. This knowledge will help us figure out how technology can be effectively integrated into instructions to make learning fun, engaging, and effective. In this module, you will learn some important learning theories by watching videos, taking quizzes, and engaging in discussion.
- **Module 2**- Using a concept map, you can assess a learner's current understanding of a concept. Inspiration, Kidspiration, and Webspiration are educational technology applications that can be used to easily create a concept map. In this module, you will form a group and select a concept to teach and Assess a learner's understanding of the concept by using one of the applications. Reflect on how a certain learning/instructional theory can be applied to the use of the chosen application.
- **Module 3**- As technology advances, there are many educational applications available to teachers and learners. Also, some technology tools that were designed for other purposes can be very much appropriate for instructional purposes. In this module, you will showcase how different educational/non educational applications can be effectively used in education and apply learning/instructional theories to the uses of the applications by creating screencasts.
- **Module 4**.1 **& 4.2**-Now that you know how different technology applications can support teaching and learning and how to use those by applying different learning/instructional theories, each of you will design, develop, implement, and evaluate a technology integration lesson.

Grading policy for this course is as follows:

A = 890-990
B = 790-889
C = 690-789
D = 590-689
F = 0-589

Late Submission: Assignments are due at midnight on the established due dates. The following late assignment policy will be applied for late submissions:

- Within first 24 hours: 10% of total points for that assignment
- 24-48 hours: 20% of total points for that assignment
- After 48 hours: I will not accept late submissions after 48 hours.
- Students who have emergencies should immediately inform the instructor. Extensions may not be given for assignments due on the day.

Course outline

Assignments, Discussions, and Quizzes and their points are listed in the table below.

Module 1- Learning Theories **240 points**

Discussion: Introduce Yourself	0
Quiz: Edupuzzle Quiz- Behaviorism	40
Discussion: How to Schedule Reinforcements?	40
Quiz: Edupuzzle Quiz- Cognitivism	40
Discussion: How to Retain Information Better	40
Quiz: Edupuzzle Quiz- Constructivism	40
Discussion: How to Design a Collaborative Learning Activity	40

Module 2- Concept Map **140 points**

Assignment: Concept Map Planning Document	40
Assignment: Concept Map Reflection Paper	100

Module 3- Ed Tech Apps **210 points**

Discussion: Form a Group	0
Assignment: Complete a contract	20
Discussion: Showcase Ed Tech Applications (Individual)	40
Discussion: Function Matrix	100
Discussion: Review and Reply	30
Assignment: Collaboration and Evaluation Google Doc	20

Module 4.1- Design Tech Lesson **190 points**

Assignment: Lesson Plan Draft	50
Discussion: Peer Review of Lesson Plan	40
Assignment: Final Lesson Plan	100

Module 4.2- Implement & Evaluate **200 points**

Assignment: Final Implementation Report	150
Assignment: Individual Reflection Paper	50

Total Points: 980

Blackboard and online access

This class is taught online. Students will need an active Sam Houston e-mail account to access the course website through Blackboard. This site will have announcements, assignment memos, and other course materials. Students will need reliable internet access in order to participate in this class and receive a passing grade.

Students are expected to log-in to Blackboard Learn at least three times a week.

Learning environment

As your professor, I am committed to fostering a positive learning environment for you, my students. If something is inhibiting your ability to study the course materials or complete the necessary work for this class, please come talk to me as soon as possible. I am confident that we will find a way to help you resolve this problem.

In particular, if you have a disability and will require accommodation(s) to participate in this course, please contact me as soon as possible. You will be asked to provide documentation from the office of SSD (Services for Students with Disabilities). Failure to contact me in a timely manner may delay your accommodations.

As a student, you can contribute to a positive environment by following the golden rule and treating other students as you would like to be treated. Another way to create a positive learning environment is to be take responsibility for your own actions. To wit: tardiness is very human, but it is not very professional. Please turn in your assignments before 5 PM on the due date. Any work turned in late will be deducted one full letter grade. If you anticipate difficulty with this, please speak to me as soon as possible. Those who seek help early are more likely to find a solution to their problem

Acting with integrity is another way you can build our scholastic community. Dishonesty in an academic setting is inexcusable. In other words, do your own work. If there is a reasonable suspicion that you are cheating or plagiarizing, you will be reported to the Dean of Students Punishment may be as severe as failing the course, or even expulsion.

If you are not sure what plagiarism is, please read APA pp. 15-16 and 170, or ask during office hours. But remember, the ultimate responsibility is your own. When in doubt, err on the side of caution.

Schedule – Spring 2018

Week	Dates	Topic	Due	Assignment
1	1/17-1/21	**Module 1**- Learning Theories		**Discussion:** Introduce Yourself
2	1/22-1/28			**Quiz:** Edupuzzle Quiz- Behaviorism **Discussion:** How to Schedule Reinforcements?
3	1/29-2/4			**Quiz:** Edupuzzle Quiz- Cognitivism **Discussion:** How to Retain Information Better
4	2/5-2/11			**Quiz:** Edupuzzle Quiz- Constructivism **Discussion:** How to Design a Collaborative Learning Activity
5	2/12-2/18	**Module 2**- Concept Map		**Assignment:** Concept Map Planning Document
6	2/19-2/25			**Assignment:** Concept Map Reflection Paper
7	2/26-3/4	**Module 3-** Ed Tech Apps		**Discussion:** Form a Group **Assignment:** Complete a Contract
8	3/5-3/11			**Discussion:** Showcase Ed Tech Applications (Individual)
Spring break				
9	3/19-3/25			**Discussion:** Function Matrix (Group)
10-11	3/26-4/8			**Discussion:** Review and Reply **Assignment:** Collaborate and Evaluation Google Doc
12	4/9-4/15	**Module 4.1-** Design Tech Lesson		**Assignment:** Lesson Plan Draft
13	4/16-4/22			**Discussion:** Peer Review of Lesson Plans
14	4/23-4/30			**Assignment:** Final Lesson Plan
15	5/1-5/6	**Module 4.2**- Implement & Evaluate		**Assignment:** Final Implementation Report **Assignment:** Individual Reflection Paper