Advanced Instructional Design
EDIT 730 – 3 credits (*pre-requisite EDIT 705*)
Course Syllabus
Fall 2010

George Mason University

http://courses.gmu.edu

General Information

Time: Tuesdays, 4:30 PM – 7:10 PM
Location: Commerce II 100
Instructor: Dr. Nada Dabbagh
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Course Objective

This course provides students with the knowledge and skills for designing highly contextualized and engaging learning environments based on the principles of constructivism, situated cognition, open-ended learning, and learner-centered instruction. The readings expose students to current and emerging theoretical perspectives as evidenced by instructional design literature and applications. The focus is on **grounded or theory-based design**, which differs from the systematic process of instructional design (ADDIE model) as discussed in EDIT 705. However, many principles of systematic instructional design will be fundamental to understanding and implementing this design approach. Additionally, the course emphasizes the design of e- learning environments using a variety of constructivist-based pedagogical models.

Delivery Approach: The course will be conducted through a mixture of lecture, in-class discussions and learning activities, online discussions, and individual and collaborative project-based activities.

Learning Outcomes

1. To develop an understanding of epistemological approaches to learning and cognition such as **objectivism**, **cognitivism**, and **constructivism**.
2. To be able to **compare** and **contrast** constructivist and objectivist approaches to learning and instruction.
3. To develop an **applied** understanding of **constructivism** and **situated cognition** for instructional design.
4. To explore constructivist **pedagogical models** and their implications for the design and evaluation of technology-supported learning environments.
5. To appreciate the importance of the linkage between theories of learning and instructional design practice.

Instructional Resources

Required Texts:

(1) Dabbagh, N., & Bannan-Ritland, B. (2005). *Online Learning: Concepts, Strategies, and Application*. Prentice Hall, Merrill Education.

(2) Kitsantas, A., & Dabbagh, N. (2010). *Learning to Learn with ILT: A Practical Guide for Academic Success*. Information Age Publishing.

Additional readings will be in PDF format on the Blackboard (BB) LMS or provided as handouts in class. The LMS course website will also have a variety of instructional resources **organized according to the learning modules in the timeline below and should be visited with each module.** To access the LMS, go to courses.gmu.edu and use your GMU email userid and password to login. If you miss class, it is **your responsibility** to check on what you missed and make up the work (***this includes classwork***).

Learning Activities and Grading Policy

Compare and Contrast Assignment (C&C) **30% of grade**

In groups of two, students will identify and compare and contrast two **technology supported** learning environments (or instructional applications) that are rooted in two opposing learning paradigms or epistemologies (objectivist and constructivist). Students will demonstrate contrasting characteristics of the selected learning environments to the class in an oral presentation. Students should justify or support these characteristics using the theoretical principles of each learning paradigm and citing class readings/resources and additional resources as appropriate. The presentation, characteristics of the applications, theoretical principles, and references/resources used, should be uploaded to the course website. More detail about this assignment is provided on the course website.

Online and In-Class Participation **30% of grade**

This course will adopt a **distributed** or **blended** delivery approach allowing for online and in-class discussions and activities. Online discussions will center on the readings and will be primarily facilitated by the instructor. Discussion questions will be posted before the discussion begins to allow students time to formulate responses. Rubrics for evaluating participation in online and in-class discussions and activities are provided on the course website. Students will also be required to post reflections and commentaries on the readings and resources.

Designing a Constructivist Learning Environment **40% of grade**

Each student will select a constructivist pedagogical model based on the modules of the course and design **a prototype of a learning environment** for a specific audience and learning content based on the instructional characteristics of the selected model. This final project should include the following elements:

- A **project proposal** describing the context of the learning environment including the pedagogical model you selected, the learning problem, learning outcomes, target audience, learning activities, etc.
- A **short paper** depicting **your understanding** of constructivism and its implications on teaching and learning. The paper should begin with a discussion of constructivism citing the course readings and why the pedagogical model you selected for this project is based on constructivist principles and why this model is a good fit for your learning environment and context. The paper should conclude with what other models could have worked in your context and how your prototype can be extended to different learning contexts (e.g., different learner population or different skills/content). (**APA style required**).
- A **matrix (table)** demonstrating the mapping or alignment of the learning outcomes to the instructional strategies (i.e., the instructional characteristics of the pedagogical model that you selected), the learning activities (what the learners will do), and the assessment criteria.
- A **prototype** of the learning environment showing all instructional parameters and learning activities. The prototype can be web-based, or, it can be done in PPT or a technology tool of your choosing (e.g., a wiki).

Grades are based on the successful completion of course requirements and on the scope, quality and creativity of the assignments. To get an A in this course, students must demonstrate critical thinking skills through active synthesis of reading material, integration of prior knowledge and experience, and through problem-solving, argumentation, and reasoning skills.

Grade distribution is as follows: A + = 97 - 100 (exceeds expectations on all requirements); A = 93 - 96 (meets expectations, excellent performance); A- = 90 - 92 (meets expectations, very good performance), B+ = 86 - 89 (meets expectations, good performance), B = 83 - 85 (meets most expectations, good performance); B- = 80 – 82 (meets some expectations, average performance); C = 70 - 79 (notably below expectations).

The instructor reserves the right to deduct up to 10% of an assignment grade per day for late submissions without a valid excuse. Missing more than 2 classes over the semester can also result in grade reduction.

Course Timeline ***(subject to change)***

Module 1: Learning Paradigms and Instructional Design

Tuesday August 31 ***f2f Class***

- Course Intro
- General discussion on learning theories and epistemologies
- Post bios and initial idea for final project to BB main discussion area
- Complete icebreaker activity and begin exploring **module 1** resources (e.g., Take the C Test)

Readings/resources to be completed by **Tuesday September 7**

- Ertmer & Newby. (1993). Behaviorism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective. (handout)
- Merrill (1996). Reclaiming the Discipline of Instructional Design. (BB)
- Jonassen (1996). There is No Need to Reclaim the Field of ID: It's Just Growing. (BB)
- Continue exploring **module 1** online resources
- Read bios and project ideas and provide comments as appropriate

Tuesday September 7 ***f2f class***

- Discuss **module 1** readings/resources, complete related class activities

Readings/resources to be completed by **Tuesday September 15**

- Jonassen (1991). Objectivism versus Constructivism: Do We Need a New Philosophical Paradigm? (BB)
- Chapter 1 (Online Learning text)
- Continue exploring **module 1** online resources

Tuesday September 14 ***ASSIGN TEAMS FOR C&C*** ***f2f class***

- Discuss **module 1** readings/resources, complete related class activities

Module 2: Situated Cognition, Anchored Instruction, Cognitive Apprenticeships

Readings/resources to be completed/explored by **Tuesday September 21**

- Dennen – Cognitive Apprenticeship article (BB)
- Chapter 1 & 9 (ILT text)
- Explore **module 2** online resources

Tuesday September 21 ***f2f class***

- Discuss **module 2** readings/resources, complete related class activities

Module 3: Instructional Design for Online Learning

Readings/resources to be completed/explored by **Tuesday September 28**

- Duffy & Cunningham (1996). Constructivism: Implications for the design and delivery of instruction (BB)
- Chapter 4 (Online Learning text)
- Explore **module 3** online resources

Tuesday September 28 **FIRST ONLINE DISCUSSION** ***No Class***

- Online discussion begins Sunday September 26th at 5 pm and ends Sunday October 3rd at 5 pm. Discussion questions will be posted on Friday September 24.

Tuesday October 5 ***f2f class***

- Recap online discussion, work on C&C presentations

Tuesday October 12 **COLUMBUS DAY RECESS** ***No Class***

Tuesday October 19 **C&C PRESENTATIONS** ***f2f Class***

Readings/resources to be completed/explored by **Tuesday October 26**
- Chapters 5&6 (Online Learning text)
- Continue exploring **module 3** online resources

Tuesday October 26 ***f2f class***

- Discuss **module 3** readings/resources, complete related class activities

Readings/resources to be completed/explored by **Tuesday November 2**
- Chapter 7 (Online Learning text)
- Chapters 2&3 (ILT text)
- Continue exploring **module 3** online resources

Tuesday November2 **FINAL PROJECT PROPOSAL DUE** ***f2f class***

- Discuss **module 3** readings/resources, complete related class activities

Module 4: Cognitive Flexibility Hypertexts, Case-Based Learning, and Goal-Based Scenarios

Readings/resources to be completed/explored by **Tuesday November 9**
- Kim, Hannafin, & Thomas (2004). Case-Based Reasoning. (BB)
- Godshalk, Harvey, & Moller (2003). The Role of Learning Task on Attitude Change using CFH. (BB)
- Explore **module 4** online resources

Tuesday November 9 **ONLINE DISCUSSION #2** ***No class***

- Online discussion begins Sunday November 7 at 5 pm and ends Sunday November14 at 5 pm. Discussion questions will be posted on Friday November 5 or earlier.

Module 5: Games, Simulations, and Computer-Based Microworlds

Readings/resources to be completed/explored by **Tuesday November 16**
- Gredler – Games and Simulations (BB)
- Rieber – Microworlds (BB)
- Chapter 4&5 (ILT text)
- Explore **module 5** online resources

Tuesday November 16 **FEEDBACK ON FINAL PROJECT** ***f2f class***

- Discuss **module 5** readings/resources, complete related class activities

Tuesday November 23 **WORK ON FINAL PROJECT** ***No Class***

Module 6: Problem-Based Learning

Readings/resources to be completed/explored by **Tuesday November 30**
- Dabbagh paper on PBL (BB)
- Barrows chapters on PBL (handout)
- Chapter 6 (ILT text)
- Explore **module 6** online resources

Tuesday November 30 ***f2f Class***

- Discuss **module 6** readings/resources

Tuesday December7 **GUEST SPEAKERS** ***f2f class***

Tuesday December 14 **FINAL PROJECT DUE** ***f2f class***

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

All students must abide by the following:

Students are expected to exhibit professional behavior and dispositions. See http://gse.gmu.edu/facultystaffres/profdisp.htm for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#Anchor12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See http://www.gmu.edu/facstaff/policy/newpolicy/1301gen.html. Click on responsible Use of Computing Policy at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See http://www.gmu.edu/student/drc/ or call 703-993-2474 to access the DRC.