Advanced Instructional Design   **George Mason University**
EDIT 730 – 3 credits (*pre-requisite EDIT 705*)
Course Syllabus   **http://mymason.gmu.edu**
Fall 2011

General Information

Time: Tuesdays, 4:30 PM – 7:10 PM
Location: Commerce II 100   **Homepage:** http://mason.gmu.edu/~ndabbagh
Instructor: Dr. Nada Dabbagh   **Office:** Commerce II Building, Room 107C
Phone: (703) 993-4439   **Email:** ndabbagh@gmu.edu

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, distributed learning, online learning, and learner-centered instruction. The readings expose students to theoretical perspectives and design principles 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 technology supported learning environments using a variety of constructivist-based pedagogical models.

Pre-requisites: EDIT 705; students are expected to be proficient in the principles and processes of instructional design (e.g., performing task and audience analysis, writing learning outcomes or instructional objectives, and aligning learning outcomes with taxonomies for identifying learning domains and assessment, etc.)

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 Blackboard Learn (BL) or provided as handouts in class. The BL course website will also have a variety of **instructional resources organized according to the learning modules in the timeline below and should be explored with each module**. To access BL go to mymason.gmu.edu and use your GMU email userid and password to login. Click on the Courses tab. If you miss class, it is **your responsibility** to **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 <u>opposing learning paradigms</u> (one objectivist and the other constructivist). Students will demonstrate contrasting characteristics of the selected learning environments to the class in a 10-15 minute oral presentation. Students should justify or support these characteristics using the theoretical principles of each learning paradigm and citing class readings and resources. The presentation, links to the selected applications (if applicable), and references/resources used, should be uploaded to Blackboard. More detail about this assignment and how it will be evaluated is provided on the course website.

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

This course will adopt a **blended** delivery approach allowing for in-class and online discussions. Online discussions will center on the readings and will be primarily facilitated by the instructor. Discussion questions will be posted a few days before the discussion begins to allow students ample time to formulate responses. Rubrics for evaluating participation in online and in-class discussions and activities are provided on the course website. There will be two online discussions worth ten points each. Ten points will be allocated towards in-class participation, which includes discussion of readings and in-class group activities.

Designing a Constructivist Learning Environment (CLE)   **40% of grade**

Each student will select a constructivist pedagogical model (e.g., cognitive apprenticeship, CFH, situated learning, PBL, Microworld, etc.) and design **a prototype of the CLE** for a specific audience and learning content based on the pedagogical characteristics of the selected model. The final deliverable for this assignment should include the following **four** elements or components:

➢ A proposal describing the parameters of the CLE including the pedagogical model selected; the learning problem (authentic context) or challenge that will engage the learners; the learning outcomes; characteristics of the target audience; the learning activities; and the assessment approach.
➢ A short paper describing constructivism and its implications on teaching and learning. The paper should begin with a brief description of constructivism based on class readings followed by a more detailed description of the pedagogical model you selected for the CLE justifying why this model is rooted in constructivist epistemology and citing related research (**APA style required**).
➢ A matrix (table) depicting the pedagogical design of the CLE. The matrix is essentially a blueprint or storyboard of the prototype and should illustrate the mapping or alignment of four design elements: (1) learning outcomes, (2) instructional strategies (derived from the instructional characteristics of the pedagogical model you selected), (3) learning activities (what the learners will do), and (4) assessment criteria.
➢ A prototype of the CLE showing the learning activities that the learners will engage in. The prototype can be web-based, or, it can be developed in PPT or a technology of your choice (e.g., wiki, LMS, etc.).

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 should demonstrate critical thinking skills through active synthesis of reading material, integration of prior knowledge and experience, and through problem-solving, argumentation, and reasoning.

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 30   *f2f Class*

➢ Course Intro
➢ General discussion on learning theories and epistemologies
➢ Post bios and initial idea for final project to BL "Meet and Greet" forum
➢ Complete the icebreaker activity and begin exploring online resources for module 1

Readings/resources to be completed by **Tuesday September 6**
➢ Ertmer & Newby. (1993). Behaviorism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective. (BL)
➢ Merrill (1996). Reclaiming the Discipline of Instructional Design. (BL)
➢ Jonassen (1996). There is No Need to Reclaim the Field of ID: It's Just Growing. (BL)
➢ Continue exploring **module 1** online resources
➢ Read bios and project ideas and provide comments as appropriate
➢ Prepare for debate

Tuesday September 6   *f2f class*

➢ Discuss readings/resources, complete related class activities, engage in debate

Readings/resources to be completed by **Tuesday September 13**
➢ Jonassen (1991). Objectivism versus Constructivism: Do We Need a New Philosophical Paradigm? (BL)
➢ Duffy & Cunningham (1996). Constructivism: Implications for the design and delivery of instruction (BL)
➢ Continue exploring **module 1** online resources

Tuesday September 13   **ASSIGN TEAMS FOR C&C**   *f2f class*

➢ Discuss readings/resources, complete related class activities

Module 2: Situated Cognition, Anchored Instruction, Cognitive Apprenticeships, Communities of Practice

Readings/resources to be completed/explored by **Tuesday September 20**
➢ Chapter 1 (Online Learning text)
➢ Dennen – Cognitive Apprenticeship article (BL)
➢ Explore online resources under **module 2** (Jasper Series, CoP Primer)

Tuesday September 20   *f2f class*

➢ Discuss readings/resources, complete related class activities

Module 3: Instructional Design for Constructivist Learning Environments (CLE)

Readings/resources to be completed/explored by **Tuesday September 27**
➢ Chapter 4 (Online Learning text)
➢ Chapter 1, 2 & 3 (ILT text)
➢ Explore **module 3** online resources

Tuesday September 27   **FIRST ONLINE DISCUSSION**   *No Class*

➢ Online discussion begins Sunday September 25th at 5 pm and ends Sunday October 2rd at 5 pm. Discussion questions will be posted on Friday September 23.

Tuesday October 4   *f2f class*

➢ Recap online discussion, work on C&C presentations

Tuesday October 11   **COLUMBUS DAY RECESS**   *No Class*

Tuesday October 18   **C&C PRESENTATIONS**   *f2f Class*

Module 3: Instructional Design for Constructivist Learning Environments (CLE)

Readings/resources to be completed/explored by **Tuesday October 25**
➢ Chapters 5 & 6 (Online Learning text)
➢ Chapters 9 (ILT text)
➢ Complete related activities

Tuesday October 25   *f2f class*

➢ Discuss readings/resources, complete related class activities

Readings/resources to be completed/explored by **Tuesday November 1**
➢ Chapter 7 (Online Learning text)
➢ Chapters 4, 5, 6, & 7 (ILT text)
➢ Continue exploring **module 3** online resources

Tuesday November1   **FINAL PROJECT PROPOSAL DUE**   *f2f class*

➢ Discuss readings/resources, complete related class activities

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

Readings/resources to be completed/explored by **Tuesday November 8**
➢ Kim, Hannafin, & Thomas (2004). Case-Based Reasoning. (BL)
➢ Godshalk, Harvey, & Moller (2003). The Role of Learning Task on Attitude Change using CFH. (BL)
➢ Explore **module 4** online resources

Tuesday November 8   **ONLINE DISCUSSION #2**   *No class*

➢ Online discussion begins Sunday November 6 at 5 pm and ends Sunday November13 at 5 pm. Discussion questions will be posted on Friday November 4 or earlier.

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

Readings/resources to be completed/explored by **Tuesday November 15**
➢ Gredler – Games and Simulations (BL)
➢ Rieber – Microworlds (BL)
➢ Explore **module 5** online resources

Tuesday November 15   **FEEDBACK ON FINAL PROJECT**   *f2f class*

➢ Discuss readings/resources, complete related class activities

Tuesday November 22   **GUEST SPEAKERS?**   *f2f class*

Module 6: Problem-Based Learning

Readings/resources to be completed/explored by **Tuesday November 29**
➢ Dabbagh et al paper on PBL (BL)
➢ Barrows chapter on PBL (BL)
➢ Kolodner, et al. (2003). PBL Meets CBR. (BL)
➢ Explore **module 6** online resources

Tuesday November 29   *f2f Class*

➢ Discuss readings/resources

Tuesday December6   **WORK ON FINAL PROJECT**   *No class*

Tuesday December 13   **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.**