Advanced Instructional Design
EDIT 732 – 3 credits (pre-requisite EDIT 705)
Course Syllabus
Spring 2010

General Information

Time: Tuesdays, 4:30 PM – 7:10 PM
Location: Commerce II 100
Instructor: Dr. Nada Dabbagh
Phone: (703) 993-4439

Homepage: http://mason.gmu.edu/~ndabbagh
Office: Commerce II Building, Room 107C
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, 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, online discussions, and project-based individual and collaborative learning activities.

Course Objectives

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 alternative 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:


Additional readings will be in PDF format on Blackboard BB or provided as handouts in class. The Blackboard 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 Blackboard go to courses.gmu.edu and use your GMU email userid and password to login. If you miss a 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 (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/resources and additional resources. The presentation, characteristics of the applications, theoretical principles, and references/resources used, should be uploaded to Blackboard. 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 both in-class and online discussions. Online discussions will center on the readings and will be facilitated by the instructor. Discussion questions will be posted 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. Ten points will be allocated towards each online discussion and ten points will be allocated towards in-class participation, which includes discussion of readings and in-class group activities.

### Designing A Constructivist Learning Environment  
40% of grade  
Each student will select an application/model of constructivism (see the modules of the course) and design a prototype of a learning environment for a specific audience and learning content based on the pedagogical characteristics of the selected application. This final project should include the following elements:

- A short paper depicting your understanding of constructivism and its implications on teaching and learning. The paper should begin with (a) a discussion of constructivism, (b) a discussion of why the pedagogical model you selected for this project is based on constructivist principles, (c) a general description of the parameters and context of your learning environment, and (d) a conclusion describing 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 parameters of the learning environment that you will be designing. The matrix should illustrate the mapping or alignment of the learning outcomes to: (1) the instructional strategies (i.e., the instructional characteristics of the pedagogical model that you selected), (2) learning activities (what the learners will do), and (3) 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 PP 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 should 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 January 19**  
- Course Intro  
- General discussion on learning theories and epistemologies  
- Post bios and initial idea for final project to Blackboard main discussion area  
- Read bios and project ideas and post comments by next class  
- Complete the icebreaker activity and begin exploring resources for module 1 (e.g., Take the C test)

Readings/resources to be completed/explored by **Tuesday January 26**  
- Jonassen (1991). Objectivism versus Constructivism: Do We Need a New Philosophical Paradigm? (BB)  
- 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)  
- Explore online resources under Module 1, prepare draft table, prepare for debate

**Tuesday January 26**  
 ASSIGN TEAMS FOR C&C  
- Discuss readings, complete in-class activities, explore related resources, engage in debate

Readings/resources to be completed/explored by **Tuesday February 2**  
- Duffy & Cunningham (1996). Constructivism: Implications for the design and delivery of instruction (BB)  
- Chapter 1 (Jonassen & Land text)  
- Chapter 1 (Dabbagh & Bannan-Ritland text)  
- Continue exploring the online resources under Module 1

**Tuesday February 2**  
- ONLINE DISCUSSION #1  
- No Class

Readings/resources to be completed/explored by **Tuesday February 9**  
- Chapter 2 & 3 (Jonassen & Land text)  
- Dennen – Cognitive Apprenticeship article (BB)  
- Explore the online resources under Module 2

**Tuesday February 9**  
- Recap online discussion, work on C&C presentations

**Tuesday February 23**  
- C&C PRESENTATIONS

**Module 2: Situated Cognition, Anchored Instruction, Cognitive Apprenticeships**

**Module 3: Instructional Design for Online Learning**

Readings/resources to be completed/explored by **Tuesday March 2**  
- Chapters 4 & 5 (Dabbagh & Bannan-Ritland text)  
- Explore online resources under Module 3

**Tuesday March 2**  
- Discuss readings, complete class activities, explore related resources
**Tuesday March 9**  
SPRING BREAK  
No Class

Readings/resources to be completed/explored by **Tuesday March 16**
- Chapters 6 & 7 (Dabbagh & Bannan-Ritland text)
- Continue exploring the online resources under Module 3
- Complete related activity

**Tuesday March 16**  
f2f class
- Discuss readings, complete class activities

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

Readings/resources to be completed/explored by **Tuesday March 23**
- Kim, Hannafin, & Thomas (2004). Case-Based Reasoning. (BB)
- Godshalk, Harvey, & Moller (2003). The Role of Learning Task on Attitude Change using CFH. (BB)
- Chapter 9 (Jonassen & Land)
- Explore the online resources under Module 4

**Tuesday March 23**  
f2f class
- Discuss readings, complete class activities

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

Readings/resources to be completed/explored by **Tuesday March 30**
- Harper – Constructivist Simulations (BB)
- Gredler – Games and Simulations (BB)
- Rieber – Microworlds (BB)
- Explore the online resources under Module 5

**Tuesday March 30**  
ONLINE DISCUSSION #2  
No class
- Discussion begins Tuesday the 30th and ends Sunday April 4th at 5 pm. Discussion questions will be posted on BB on Friday March 26 so you can adequately prepare

**Tuesday April 6**  
f2f class
- Recap online discussion, explore examples for final project

**Module 6: Problem-Based Learning**

Readings/resources to be completed/explored by **Tuesday April 13**
- Dabbagh paper on PBL (BB)
- Barrows chapters on PBL (handout)
- Kolodner, et al. (2003). PBL Meets CBR. (BB)
- Explore the online resources under Module 6

**Tuesday April 13**  
FINAL PROJECT PROPOSAL DUE  
f2f class
- Discuss readings, complete class activities

**Tuesday April 20**  
GUEST SPEAKERS AND PRESENTERS  
f2f class
- Feedback on final project proposal

**Tuesday April 27**  
WORK ON FINAL PROJECT  
No class

**Tuesday May 4**  
FINAL PROJECT DUE  
Nada@AERA

**Thursday May 6**  
PROJECT PRESENTATIONS (if possible)
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.