

**Advanced Instructional Design**  
**EDIT 730 – 3 credits (pre-requisite EDIT 705)**  
**Course Syllabus**  
**Spring 2011**



### General Information

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

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### Course Description

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 learning, distributed learning and self-regulation. 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 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, online discussions, and individual and collaborative learning activities including a final design project.

### Course Objectives (Learning Outcomes)

1. To develop an understanding of epistemological approaches to learning and cognition such as **objectivism, cognitivism, constructivism, and situated cognition**.
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 **self-regulation** 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:

- (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 Integrative Learning Technologies (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](http://mymason.gmu.edu) and use your GMU email userid and password to login. If you miss class, it is **your responsibility to make up** the work (this includes classwork).

<b>Learning Activities and Grading Policy</b>
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**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 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.**

<b>Course Timeline</b> <i>(subject to change)</i>
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**Module 1: Learning Paradigms and Instructional Design*****Tuesday January 25******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/activities to be completed by Tuesday February 1**

- 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)
- Read bios and project ideas and post comments by next class
- Continue to explore online resources under Module 1 (Take the C test and bring results to class)

***Tuesday February 1*****ASSIGN TEAMS FOR C&C*****f2f class***

- Discuss readings, complete in-class activities, explore related resources, engage in debate

**Readings/resources to be completed/explored by Tuesday February 8**

- 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 online resources under Module 1

***Tuesday February 8******f2f class***

- Discuss readings, complete in-class activities

**Module 2: Situated Cognition, Anchored Instruction, Cognitive Apprenticeships, Communities of Practice****Readings/resources to be completed/explored by Tuesday February 15**

- Chapter 1 (Online Learning text)
- Dennen – Cognitive Apprenticeship article (BL)
- Explore online resources under Module 2 (Jasper Series, CoP Primer)

***Tuesday February 15******f2f class***

- Discuss readings, complete in-class activities

**Module 3: Instructional Design for Constructivist Learning Environments (CLE)****Readings/resources to be completed/explored by Tuesday February 22**

- Chapter 4 (Online Learning text)
- Chapter 1 (ILT text)
- Explore online resources under Module 3

***Tuesday February 22*****ONLINE DISCUSSION #1*****No class***

- Discussion begins Monday February 21 and ends Sunday February 27 at 5 pm. Discussion questions will be posted on Friday February 18 so you can adequately prepare

***Tuesday March 1*****C&C PRESENTATIONS*****f2f class***

- Recap online discussion, C&C presentations

***Tuesday March 8*****C&C PRESENTATIONS*****f2f class******Tuesday March 15*****SPRING BREAK*****No class***

**Module 3: Instructional Design for Constructivist Learning Environments (CLE)**Readings/resources to be completed/explored by **Tuesday March 22**

- Chapters 5 & 6 (Online Learning text)
- Chapters 5, 6, & 9 (ILT text)
- Complete related activities

***Tuesday March 22******f2f class***

- Discuss readings, complete class activities

**Module 3: Instructional Design for Constructivist Learning Environments (CLE)**Readings/resources to be completed/explored by **Tuesday March 29**

- Chapter 7 (Online Learning text)
- Chapters 2 & 3 (ILT text)
- Explore online resources under Module 3

***Tuesday March 29******f2f class***

- Discuss readings, complete class activities

**Module 4: Cognitive Flexibility Hypertexts, Case-Based Learning, Goal-Based Scenarios**Readings/resources to be completed/explored by **Tuesday April 5**

- Kim, Hannafin, & Thomas (2004). Case-Based Reasoning. (BL)
- Godshalk, Harvey, & Moller (2003). The Role of Learning Task on Attitude Change Using CFH. (BL)
- Explore online resources under Module 4

***Tuesday April 5******f2f class***

- Discuss readings, complete class activities

**Module 5: Games, Simulations, Microworlds**Readings/resources to be completed/explored by **Tuesday April 12**

- Gredler – Games and Simulations (BL)
- Rieber – Microworlds (BL)
- Explore online resources under Module 5

***Tuesday April 12*****ONLINE DISCUSSION #2/ FINAL PROJECT PROPOSAL DUE** *No class*

- Discussion begins Monday April 11 and ends Sunday April 17 at 5 pm. Discussion questions will be posted on Friday April 8 so you can adequately prepare

***Tuesday April 19*****FEEDBACK ON FINAL PROJECT*****f2f class***

- Recap online discussion, explore examples for final project, guest speakers

**Module 6: Problem-Based Learning**Readings/resources to be completed/explored by **Tuesday April 26**

- Dabbagh et al. paper on PBL (BL)
- Barrows chapter on PBL (BL)
- Kolodner, et al. (2003). PBL Meets CBR. (BL)
- Explore online resources under Module 6

***Tuesday April 26******f2f class***

- Discuss readings, complete class activities

***Tuesday May 3*****WORK ON FINAL PROJECT*****No class******Tuesday May 10*****FINAL PROJECT DUE*****f2f class***

## COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

### *Student Expectations*

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

### *Campus Resources*

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
- For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <http://gse.gmu.edu/>].