

Advanced Instructional Design
EDIT 730 – 3 credits (pre-requisite EDIT 705)
Course Syllabus
Spring 2013



General Information

Time: Tuesdays, 4:30 PM – 7:10 PM
Location: Thompson Hall, L003
Instructor: Dr. Nada Dabbagh
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Course Description

Catalog Description: Capstone course of three-course sequence on theory and practice of instructional design. Helps students apply ideas developed in prior courses to complete major instructional design project. Covers leading-edge ideas in evolution of instructional design.

Expanded Description: The course provides students with the knowledge and skills for designing highly contextualized and engaging learning environments based on the principles of constructivism, situated cognition, online learning, distributed learning and self-regulated learning. Readings expose students to a range of epistemological and 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 (e.g., ADDIE) as discussed in EDIT 705. However, the principles of systematic instructional design are fundamental to understanding and implementing this design approach. Additionally, the course emphasizes the design of online and 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.)

Nature of Course Delivery: 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.

For this particular semester, the first three classes will be online (asynchronously).

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 its implications for instructional design.
4. To explore alternative constructivist **pedagogical models** and their implications for the design and evaluation of online and technology-supported learning environments.
5. To appreciate the importance of the linkage between theories of learning and instructional design practice.

Texts and Instructional Resources

(1) Learning to Solve Problems: A Handbook for designing problem-solving learning environments (Jonassen), 2011, Routledge, Taylor & Francis. |ISBN-10: **0415871948** | ISBN-13: **978-0415871945 (required)**

(2) Online Learning: Concepts, Strategies, and Application (Dabbagh & Bannan-Ritland), 2005, Pearson. |ISBN-10: 0130325465 | ISBN-13: 978-0130325464 | **(required, optional purchase, chapters will be provided online)**

Additional readings will be on Blackboard 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 mymason.gmu.edu

Learning Activities, Performance Based Assessments, 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 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 includes both 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 a few days before the discussion officially 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. In-class participation, which includes discussion of readings and in-class group activities will be worth ten points.

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

Each student will select a constructivist based pedagogical model (e.g., cognitive apprenticeship, situated learning, PBL, Microworld, etc.) and apply a **grounded design approach** to develop a **prototype of the CLE** for a specific audience and learning content chosen by the student. The final deliverable for this assignment should include the following **four** 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 detailed description of the pedagogical model selected for the CLE and its theoretical underpinnings (i.e., why the model is rooted in constructivist epistemology or similar, citing related research) (**APA style required**).
- A table depicting the grounded design of the CLE. The table is 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 developed in PPT or a technology of your choice (e.g., wiki, LMS, Flash, website, 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. If you miss class, it is your responsibility to make up the work (this includes classwork).

Rubric for Evaluating Designing a Constructivist Learning Environment (CLE)

Components/Criteria	Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
Project Proposal (6 points)	All key elements of the project proposal are included and effectively described and the elements align with the characteristics of the pedagogical model selected	Most key elements of the project proposal are included and effectively described OR all key elements are covered but the alignment across the elements is not clear	Key elements of the project proposal are missing OR the elements are not described effectively or do not align with the selected pedagogical model
Paper (10 points)	All key elements of the paper are covered and supported in a substantive way	Most key elements of the paper are covered and supported substantively OR all key elements are covered but not substantively	Several elements of the paper are missing, not supported substantively, or not adhered to
Design Table (12 points)	All key elements of the design table are included and pedagogically aligned	Most key elements of the design table are included and pedagogically aligned OR all key elements of the design table are included but not pedagogically aligned	Several elements of the design table are missing or not pedagogically aligned
Prototype (12 points)	Prototype uses appropriate technologies to demonstrate all aspects of the design table that are applicable or available to the learner and the facilitator	Most aspects of the design table are demonstrated in the prototype using appropriate technologies OR all aspects of the design table are included but not effectively demonstrated	Several aspects of the design table are missing in the prototype design OR are not demonstrated effectively and consistently

Course Timeline <i>(subject to change)</i>

Module 1: Learning Paradigms and Instructional Design

Tuesday January 22 (Week 1)

online class

- View the Course Intro PPT (homepage link)
- Read the syllabus thoroughly and explore the course content on Blackboard
- Post bios and initial idea for final project to Blackboard “Meet and Greet” forum
- Read bios and project ideas and provide comments as appropriate
- Complete the icebreaker activity (see blog area)

Readings/activities to be completed by Tuesday January 29

- Ertmer & Newby. (1993). Behaviorism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective (Blackboard)
- Merrill (1996). Reclaiming the Discipline of Instructional Design (Blackboard)
- Jonassen (1996). There is No Need to Reclaim the Field of ID: It's Just Growing (Blackboard)
- Watch Merrill and Jonassen videos under resources for Module 1
- Explore online resources under Module 1

Tuesday January 29 (week 2)

online class

- Post first blog entry on Merrill-Jonassen debate (see questions in blog space)
- Work in groups on epistemology comparison document based on the Ertmer & Newby article

Readings/activities to be completed/explored by Tuesday February 5

- Jonassen (1991). Objectivism versus Constructivism: Do We Need a New Philosophical Paradigm? (Blackboard)
- Duffy & Cunningham (1996). Constructivism: Implications for the design and delivery of instruction (Blackboard)
- Continue exploring online resources under Module 1

Tuesday February 5 (week 3)

online class

- Complete work on epistemology document integrating week 2 readings
- Post document on Blackboard in designated discussion area

Tuesday February 12 (week 4)

f2f class

- Discuss the epistemology document in class, complete related class activities
- Review readings/activities to date
- Assign teams for C&C assignment

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

Readings/activities to be completed/explored by Tuesday February 19

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

Tuesday February 19 (week 5)

f2f class

- Discuss readings in class, complete related class activities

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

Readings/resources to be completed/explored by Tuesday February 26

- Chapter 4, 5, 6 (Online Learning text) (Blackboard)
- Explore online resources under Module 3
- Complete activities Chapters 5&6

Tuesday February 26 (week 6)

f2f class

- Discuss chapters 4, 5, 6, complete related class activities

Tuesday March 5 (week 7) *No Class*

- Work on C&C presentations

Tuesday March 12 (week 8) **SPRING BREAK** *No Class*

Tuesday March 19 (week 9) **C&C PRESENTATIONS** *f2f class*

Tuesday March 26 (week 10) **C&C PRESENTATIONS** *f2f class*

Readings/activities to be completed/explored by **Tuesday April 2**

- Chapters 1, 8, & 10 (Learning to Solve Problems text)
- Explore online resources under Module 3

Tuesday April 2 (week 11) *f2f class*

- Discuss readings/resources, complete related class activities

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

Readings/activities to be completed/explored by **Tuesday April 9**

- Godshalk, Harvey, & Moller (2003). The Role of Learning Task on Attitude Change Using CFH (Blackboard)
- Chapter 12 & 13 (Learning to Solve Problems text)
- Explore online resources under Module 4

Tuesday April 9 (week 12) *f2f class*

- Discuss readings, complete class activities

Module 5: Games, Simulations, Microworlds

Readings/activities to be completed/explored by **Tuesday April 16**

- Gredler – Games and Simulations (Blackboard)
- Rieber – Microworlds (Blackboard)
- Chapter 14 (Learning to Solve Problems text)
- Explore online resources under Module 5

Tuesday April 16 (week 13) **Final Project Proposal Due** *online class*

- Online discussion

Module 6: Problem-Based Learning

Readings/activities to be completed/explored by **Tuesday April 23**

- Dabbagh et al. paper on PBL (Blackboard)
- Barrows chapter on PBL (Blackboard)
- Chapters 7 (Learning to Solve Problems text)
- Explore online resources under Module 6

Tuesday April 23 (week 14) *f2f class*

- Discuss readings, complete class activities

Readings/activities to be completed/explored by **Tuesday April 30**

- Chapters 21 & 22 (Learning to Solve Problems text)
- Explore online resources under Module 6

Tuesday April 30 (week 15) *f2f class*

- Discuss readings, complete class activities

Tuesday May 7 **WORK ON FINAL PROJECT** *No class*

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

GEORGE MASON UNIVERSITY POLICIES AND RESSOURCES FOR STUDENTS

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].
- 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.
- The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles.

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/>].