

George Mason University
 College of Education and Human Development
 Instructional Design and Technology Program (IDT)
 EDIT 730 - Advanced Instructional Design – Section 001 – 3 Credits
 Fall 2018 Syllabus

General Information

Time: Tuesdays, 4:30 PM – 7:10 PM
Location: Thompson Hall L003
Instructor: Dr. Nada Dabbagh
Phone: (703) 993-4439

Division of Learning Technologies
IDT Program: <http://learntech.gmu.edu/idt/>
Office: Thompson Hall, L047 (office hours by appointment)
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Course Description

Catalog Description: Provides students with the knowledge and skills for designing highly contextualized and engaging problem-solving learning environments using a grounded, theory-based design approach. Emphasizes the design of technology supported learning environments using a variety of pedagogical models and instructional strategies.

Expanded Description: Provides students with the knowledge and skills for designing and facilitating highly contextualized, engaging, and meaningful learning experiences based on the principles of constructivism, situated cognition, and connectivism. 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 as discussed in EDIT 705 (e.g., ADDIE). However, the principles of systematic instructional design are fundamental to understanding and implementing this design approach. The course also emphasizes the design of **online or technology supported learning environments (TSLEs)** using proven pedagogical models, instructional strategies, and learning technologies.

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).

Course Delivery Method: The course will be conducted through a mixture of lecture, in-class discussions and activities, online discussions, and individual and collaborative activities including a final design project.

Learner Outcomes or Objectives

1. Develop an understanding of epistemological approaches to learning and cognition such as **objectivism, behaviorism, cognitivism, constructivism, situated cognition, and connectivism.**
2. Develop an understanding of **grounded design or theory-based design.**
3. Develop an **applied** understanding of **constructivism** and its implications for designing **meaningful learning experiences** using the **Meaningful Online Learning Design Framework.**
4. Examine a variety of constructivist-based **pedagogical models and instructional strategies** and their implications for the design of meaningful learning experiences using a variety of learning technologies.
5. Appreciate the importance of the linkage between theories of learning and instructional design practice.

Professional Standards

The learning outcomes for this course align with the 2012 International Board of Standards for Training, Performance and Instruction (IBSTPI) competencies of *Professional Foundations* and *Design and Development* as follows (see <http://www.ibstpi.org/instructional-design-competencies/>):

- *Professional Foundations (2):* Apply research and theory to the discipline of instructional design
- *Planning & Analysis (9):* Analyze the characteristics of existing & emerging technologies & their potential use
- *Design & Development (10):* Use an instructional design & development process appropriate for a given project
- *Design & Development (11):* Organize instructional programs/products to be designed, developed, and evaluated
- *Design & Development (12):* Design instructional interventions

Required Texts

Dabbagh, N., Marra, R.M., & Howland, J.L. (2019). *Meaningful online learning: Integrating strategies, activities, and learning technologies for effective designs*. Routledge.

Additional readings are provided on Blackboard (Bb) or as handouts in class. The Blackboard course website will 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

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Bb, TK20, etc.)

CLE (Constructivist Learning Environment) Criteria and Application **25% of grade**

In groups, students will (a) identify theoretical principles and instructional characteristics of Constructivist Learning Environments (CLEs) based on the readings and additional reliable resources, (b) contrast these to the theoretical principles and instructional characteristics of Objectivist or Behaviorist Learning Environments (OLEs), (c) find and share an example of a CLE that is **technology supported** and subscribes to the CLE principles and characteristics identified, and (d) critique the extent to which the selected CLE example embodies the principles of constructivism. The end product for this assignment is a 20-25 minute in-class presentation that describes the findings of the group with respect to these items. More detail is provided on the course website under assignments.

Online and In-Class Participation **25% of grade**

The course includes online and in-class discussions and activities. Online activities include the use of blogs, vlogs, or discussion forums (15%) designed to help you articulate your understanding of the readings, share multiple perspectives and provide constructive peer feedback. In-class activities (10%) include group work and whole group discussions. *Students are expected to come to class fully prepared to discuss the readings*. Rubrics for evaluating class participation are provided on the course website under assignments. **On time class attendance is critical to successful class participation.**

Research Brief **25% of grade**

Each student will select a constructivist based pedagogical model (e.g., cognitive apprenticeship, community of practice, situated learning, problem based learning) OR an instructional strategy (e.g., collaboration, articulation, scaffolding, problem solving), OR a learning technology (e.g., immersive tools, collaboration tools, knowledge representation tools) and write a **research brief** based on the *5 Things You Need to Know About*: (1) What is it? (2) How does it work? (3) Who is doing it? (4) How effective is it? (5) What are its implications for instructional design? References should include course readings as well as new empirical research related to the selected model, strategy, or technology. More detail is provided on the course website under assignments.

Designing a Technology Supported Constructivist Learning Environment (TSCLE) **25% of grade**

Individually or in small groups, students will select a constructivist based pedagogical model or the meaningful learning characteristics and will apply a **grounded design approach** i.e. the **Meaningful Online Learning Design Framework** to develop a **prototype of the TSCLE** for a specific target audience and learning content. The prototype will demonstrate how supportive, dialogic, and exploratory instructional strategies are implemented. **This is a Performance Based Assessment or PBA (rubric provided at end of syllabus).**

The final deliverable for this assignment should include the following **three** components:

1. A **proposal** (design document) describing the parameters of the TSCLE including the learning problem, target audience, learning outcomes (knowledge/skills/content), pedagogical model or meaningful learning framework, instructional strategies, learning activities, learning technologies, and assessment approach.
2. A **design table** depicting the grounded design of the TSCLE. The table is a blueprint or storyboard of the prototype and should illustrate the mapping or alignment of the following design elements: (1) learning outcomes, (2) instructional strategies, (3) learning activities or tasks (what the learners will do) and how these activities support meaningful learning, (4) the learning technologies that will enable learners to accomplish these tasks, and (5) assessment criteria.
3. A **prototype** of the TSCLE showing the **learning activities** that the learners will engage in and the supporting learning technologies. The prototype can be developed in PPT or a technology of your choice (e.g., wiki, googlesites, Wix, Wordpress, Adobe Captivate, 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 most expectations, good performance), B = 83 - 85 (meets most expectations, satisfactory 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).

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.

See <https://cehd.gmu.edu/students/policies-procedures/>

Core Values Commitment

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:

<http://cehd.gmu.edu/values/>

GEORGE MASON UNIVERSITY POLICIES AND RESOURCES FOR STUDENTS

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>)
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>)
- Students are responsible for the content of university communications sent to their Mason 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 with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ds.gmu.edu/>).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/>

Class Schedule	(Faculty reserve the right to alter the schedule as necessary, with notification to students)
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Module 1: Learning Paradigms and Instructional Design

Tuesday August 28 (week 1)

f2f class

- Course intro
- In-class icebreaker activity
- General discussion on learning theories and epistemologies
- Post bios to Blackboard “Meet & Greet” forum
- Post a brief summary of a learning or training design problem that you have recently encountered or solved to Blackboard “Learning Design Problems” forum

Readings/activities to be completed by Tuesday September 4

- Ertmer & Newby (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective (Bb)
- Jonassen (1991). Objectivism versus constructivism: Do we need a new philosophical paradigm? (Bb)
- Siemens (2005). Connectivism: A learning theory for the digital age (Bb)
- Provide comments on the “Meet and Greet” and “Learning Design Problems” forums as appropriate
- Explore online resources under Module 1
- Come prepared to share your *objectivism-cognitivism-constructivism-connectivism* comparison table

Tuesday September 4 (week 2)

ASSIGN TEAMS FOR CLE ASSIGNMENT

f2f class

- Discuss readings/resources, develop epistemology comparison table

Readings/resources to be completed/explored by Tuesday September 11

- Mattar (2018). Constructivism and connectivism in educational technology (Bb)
- Dabbagh (2005). Constructivist based pedagogical models (Bb)
- Explore online resources under Module 1

Tuesday September 11 (week 3)

online class

- Discuss readings/resources online, complete epistemology comparison table
- Work on CLE assignment

Tuesday September 18 (week 4)

CLE PRESENTATIONS

f2f class

Module 2: Situated Learning, Cognitive Apprenticeship, Communities of Practice

Readings/resources to be completed/explored by Tuesday September 25

- Herrington & Oliver (n.d.). Critical characteristics of situated learning (Bb)
- Collins & Kapur (2014). Cognitive apprenticeship (Bb)
- Communities of Practice: A brief introduction by Etienne Wenger (Bb)
- Explore online resources under Module 2

Tuesday September 25 (week 5)

f2f class

- Discuss readings/resources online, complete related learning activities

Module 3: Instructional Design for Technology Supported Constructivist Learning Environments (TSCLE)

Readings/resources to be completed/explored by Tuesday October 2

- Chapters 1, 2, & 3 (MOL textbook)
- Explore online resources under Module 3

Tuesday October 2 (week 6)

SELECT TOPIC FOR RESEARCH BRIEF

online class

- Discuss readings/resources, complete related learning activities

Tuesday October 8 (week 7)

SELECT TOPIC FOR RESEARCH BRIEF

no class

- Fall break

Readings/resources to be completed/explored by **Tuesday October 16**

- Chapter 4 (MOL textbook)
- Explore online resources under Module 3
- Work on research brief

Tuesday October 16 (week 8)*online class*

- Discuss readings/resources online, complete related learning activities
- Work on research brief

Readings/resources to be completed/explored by **Tuesday October 23**

- Chapters 5, 6, & 7 (MOL textbook)
- Work on research brief

Tuesday October 23 (week 9)*f2f class*

- Discuss readings/resources, complete related class activities
- Work on the research brief

Readings/resources to be completed/explored by **Tuesday October 30**

- Chapter 8 (MOL textbook)

Tuesday October 30 (week 10)**RESEARCH BRIEF DUE***online class*

- Discuss readings/resources online, complete related learning activities

Module 4: Goal-Based ScenariosReadings/resources to be completed/explored by **Tuesday November 6**

- Schank, et al. (2009). The design of goal-based scenarios (Bb)
- Hsu & Moore (2010). An example implementation of Schank's goal-based scenarios (Bb)
- Hsu & Moore (2011). Formative research on the goal-based scenario model (Bb)
- Explore online resources under Module 4

Tuesday November 6 (week 11)*online class*

- Discuss readings/resources online, complete related learning activities

Module 5: Problem-Based LearningReadings/resources to be completed/explored by **Tuesday November 13**

- Newman (2005). Problem Based Learning: An introduction and overview (Bb)
- Dabbagh (2019). Effects of PBL on critical thinking skills (Bb)
- Explore online resources under Module 5

Tuesday November 13 (week 12)**FINAL PROJECT PROPOSAL DUE***f2f class*

- Discuss readings/resources online, complete related learning activities

Module 6: Games & SimulationsReadings/resources to be completed/explored by **Tuesday November 20**

- Barab, Gresalfi, Ingram-Goble (2010) – Transformational Play (Bb)
- Prensky (2001) – Simulations: Are They Games (Bb)
- Explore online resources under Module 6

Tuesday November 20 (week 13)*online class*

- Discuss readings/resources online, complete related learning activities

Tuesday November 27 (week 14)*f2f class*

- Guest speakers
- Class synthesis

Tuesday December 4 (week 15)**WORK ON FINAL PROJECT***no class***Tuesday December 11 (week 16)****FINAL PROJECT DUE***f2f class*

Assessment Rubric

Rubric for the Performance Based Assessment “Designing a Technology Supported Constructivist Learning Environment (TSCLE)” (rubrics for the other assignments are available on the course website)

IBSTPI Competency	Criteria	Exceeds Standards	Meets Standards	Does Not Meet Standards
Professional Foundations: 2 5 points	Project Proposal	All parameters of the TSCLE are included and clearly described	Most parameters of the TSCLE are included and clearly described	Some parameters of the TSCLE are missing or not clearly described
Design & Development: 10 5 points	Design Table	The Meaningful Online Learning Design Framework is effectively applied and the elements are pedagogically aligned	The Meaningful Online Learning Design Framework is effectively applied but some of the elements are missing or not pedagogically aligned	The Meaningful Online Learning Design Framework is not applied or the elements are not pedagogically aligned
Design & Development: 11 5 points	Design Table	All elements of the design table are included and pedagogically aligned	Most elements of the design table are included and pedagogically aligned	Several elements of the design table are missing or not pedagogically aligned
Planning & Analysis: 9 5 points	Prototype	The learning activities are demonstrated in the prototype using appropriate technologies	Most learning activities are demonstrated in the prototype using appropriate technologies	Several learning activities are missing in the prototype or the technologies used to demonstrate them are not appropriate
Design & Development: 12 5 points	Prototype	The prototype effectively demonstrates the design of a TSCLE	The prototype mostly demonstrates the design of a TSCLE	The prototype does not effectively demonstrate the design of a TSCLE