EDIT 732 Section DL3: Analysis and Design of Technology-Based Learning Environments
3 Credits, Fall 2017
7:20-10:00pm/Wednesdays Fairfax Campus – Thompson Hall L013
(Face-to-Face Sessions moved to Fenwick Library Room 4010)

Faculty:

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Prerequisites/Corequisites – EDIT 730 or permission of instructor

University Catalog Course description:

Enables design, implementation, and evaluation of technology-based education and training materials using advanced computer-based authoring tools.

Course Overview:

This course will provide students with opportunities to experience the instructional design and user experience design process as applied to the conceptual prototype of a technology-based learning system or interface design. Students may have the opportunity to interact with clients, subject matter experts, target audience members and draft a comprehensive user experience design approach as well as prototype their ideas using selected technology software tools. The course will be focused on facilitating connections between interdisciplinary approaches of user experience prototyping, design and development of teaching and learning systems/interfaces from multiple disciplines including instructional design, computer science, human computer interface and related fields.

Course Delivery Method:

This course will be delivered online (76% or more) using an asynchronous format via the Blackboard learning management system (LMS) housed in the MyMason portal, several synchronous sessions using WebEx and collaborative software Spark. You will log in to the Blackboard course site, WebEx and Spark using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on August 25, 2017.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students will need a video camera/capability for use with Blackboard, WebEx and Spark Collaborate tool and may wish to utilize an external microphone (rather than the internal computer microphone) if needed for creating the required video presentation
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.

Expectations

- Course Week**:** This course is a hybrid course which means it encompasses face-to-face as well as online sessions which may be asynchronous (not in real time) or synchronous (in real time) sessions designated by the instructor.
  - o Asynchronous: Because hybrid/asynchronous courses do not have a "fixed" meeting day, our week will **start** on Wednesday, and **finish** on Thursday.
- Log-in Frequency Students must actively check the course Blackboard site, Spark and their GMU email for communications from the instructor, teammates, class discussions, and/or access to course materials at least 3-4 times per week.
- Participation: Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence: Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues: Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload: Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of and complete the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support: Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette: The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.

- • <u>Accommodations:</u> Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

1. experience the process of instructional design and development intersected with user experience design process as applied to a real-world project;

2. apply instructional design, learning theories, user experience design and interdisciplinary design principles to technology prototype development;

3. apply product development and user experience design life cycle methodologies to instructional design and development

4. collect and analyze user data related to iterative instructional design and development and user experience design processes.

5. contribute positively to the team's mission and goals and support of individual members and team members' professional growth and development

6. document individual's contributions to team's mission and goals

7. contribute to project management and accomplishment of goals

8. present a design prototype

Professional Standards (International Board of Standards for Training, Performance and Instruction (IBSTPI) :

Upon completion of this course, students will have met the following professional standards
1 Prof Foundations: Communicate effectively in visual, oral and written form.

4 Professional Foundation: Apply data collection and analysis skills in instructional design projects

6 Planning & Analysis: Conduct a needs assessment in order to recommend appropriate design solutions and strategies

7 Planning & Analysis: Identify and describe target population and environmental characteristics

8 Planning & Analysis: Select & use analysis techniques for determining instructional content

9 Planning & Analysis: Analyze the characteristics of existing and emerging technologies and their potential use

12 Design instructional intervention

Required Texts:

1) Hartson, R. & Pyla, P.S. (2012) *The UX Book: Process and guidelines for ensuring a quality user experience.* Waltham, MA: Elsevier.

2) Parush, A. (2015). *Conceptual design for interactive systems: Designing for performance and user experience.* New York: Morgan Kaufmann.

Recommended Text

3) Sanders, L. & Stappers, P. J. (2013). *Convivial toolbox: Generative research for the front end of design (Voices That Matter).* BIS Publishers. (ISBN-13: 9789063692841)

4) Lui, A. (2015). *Designing connected products: UX for the consumer Internet of Things.* O'Reilly Media Incorporated (ISBN 9781449372569)

Classroom: This class meets in a classroom that is not equipped with individual workstations and all students are required to "bring your own device" (BYOD) to class. This is typically a personal laptop or tablet. Due to the nature of some online tools that may be introduced, a laptop (Mac or Windows) or a tablet running Windows 8.1 or later would be optimal.

Course Performance Evaluation
Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Assignments:

Individual Participation/Teamwork Contributions to Group Process		30%
User Interaction Design and Development (Compiled PDF + Project 6 TME)		60%
Project 1: Topic and client selection and product concept statement	5%	
Project 2: Contextual inquiry and analysis	10%	
Project 3: Requirements and modeling	10%	
Project 4: Design	10%	
Project 5: Prototype and pilot test	15%	
Project 6: Revised Prototype, Project presentation and TME	10%	
Mid-Semester - Intersecting instructional design process with user experience design reflections		5%
End-of-Semester - Intersecting instructional design process with user experience design reflections		5%
Total percentage (referred to as points in individual items in rubrics below)		100%

Grading Policies

Your final grade will be based on the following scale:

A+ = 97-100 percent

A = 94-96 percent

A - = 90-93 percent

B+ = 87-89 percent

B = 84-86 percent

B- = 80-83 percent

C+ = 77-79 percent

C=74-76 percent

C=70-74 percent

F = <70 percent

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times. See https://cehd.gmu.edu/students/polices-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/.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see http://oai.gmu.edu/the-mason-honor-code/).

- 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://ods.gmu.edu/).

- Students must follow the university policy stating that all sound emitting devices shall be silenced 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/api/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.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/).

- 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 Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to http://studentsupport.gmu.edu/, and the OSS staff will follow up with the student.

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