

**GEORGE MASON UNIVERSITY**  
**COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT**  
Instructional Design and Technology Program

EDIT 752 Section 001: Analysis and Design of Technology-Based Learning Environments  
3 Credits Spring 2019  
4:30-7:10pm/Wednesdays Fairfax Campus –Fenwick Library Room 4010

**PROFESSOR(S):**

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**Prerequisites/Corequisites** EDIT 732 or permission of instructor

**University Catalog Description:**

Students design and produce multimedia/hypermedia applications based on current theory and research in instructional design and cognitive science. Examines user needs, information models, structure, and media selection and uses to inform design and production of final project.

**Course Overview:**

This course will provide students with face-to-face and online learning opportunities to apply principles of instructional design, design research, user research, usability and evaluation and revision techniques to a real world learning technology design project. Students will work intensively in a team-based setting to collaboratively and thoroughly design/re-design, produce, collect, evaluate, and analyze data related to the design and/or implementation of a real-world technology solution prototype geared toward a specific instructional or performance problem. The outcome of the course will be a viable and implemented user research plan that allows for several rounds of applied data collection, analysis and revision of a technology-based prototype project.

**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. 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 January 22, 2019.

**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. Opera and Safari are not compatible with Blackboard;
- Consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course
- 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 the course requirements.
- The following software may be incorporated into this course for PCs and Macs available for downloading by clicking on the link or through the instructors:  
<http://www.userzoom.com/>

## Expectations

- Course Week: Because asynchronous courses do not have a “fixed” meeting day, our week will start on Wednesday, and finish on Tuesday. Any synchronous meetings will take place as indicated on the Schedule of Classes.
- Log-in Frequency: Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least three times per week. In addition, students must log-in for all scheduled online synchronous meetings.
- 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 anticipate some technical difficulties during 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 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.

- Accommodations:  
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:

1. understand the process of instructional design and development as applied to a User Experience (UX) real-world project;
2. apply instructional design, UX design, learning theories and interdisciplinary design principles to technology prototype development;
3. apply product development, evaluation, research and design research methodologies to instructional design and development
4. collect and analyze user data related to iterative instructional design and development
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. write research management plan
9. implement cycles of rapid evaluation of technology-based prototype and revisions and present results

## **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

### *Professional Foundations:*

- Communicate effectively in written & oral form
- Apply data collection & analysis skills to instructional design projects

### *Design & Development:*

- Use an instructional design and development process appropriate for a given project
- Organize instructional programs and/or products to be designed, developed, and evaluated

### *Evaluation & Implementation:*

- Evaluate instructional & non-instructional interventions
- Revise instructional & non-instructional solutions based on data
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*Management:*

- Manage partnerships & collaborative relationships
- Plan and manage instructional design projects.

**Required Texts**

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

**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, etc.).

- **Assignments and Examinations**
- **Performance-Based Assessments** - This course includes performance-based assessments with allocated percentages and corresponding point values (listed in rubric at end of syllabus):
- **Percentage of Grade (each deliverable worth 100 points for a total of 1000 points but weighted with varying percentages) – are displayed as a running total point value. The User Research, Revision and Presentation – the core performance-based assignment, for example, has several components that each total 100 and *combined* are 70% of your grade. Therefore the running total point value you see on Blackboard will reflect the number of points you have earned *at that time* rather than your total grade for that *entire* assignment.)**

Individual Team Member Evaluation (TME) Participation/Contributions to Group Project Process	30%
UX Research, Revision and Presentation of Prototype	70%
<u>Research Management Plan</u>	10%
<u>Progression and Revision of Prototype</u>	10%
<u>Round 1 Data Collection and Analysis</u>	20%
<u>Round 2 Data Collection and Analysis</u>	20%
<u>User Experience Research Presentation</u>	10%
Total percentage (referred to as points in individual items in rubrics below)	100%

- **Grading**

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

### **Other Requirements/Instructor Availability**

Due to intense nature of this blended project-based course, the instructor will release content progressively in the Blackboard course site typically the day of the course session (e.g. by Tuesday 4:30pm of specific class session content or sometimes earlier). Any course questions should be posted to the course question section on Blackboard for all class participants to view and benefit from the collaborative responses. The instructor will typically respond to the majority of questions/concerns on the day of the class allocated to that particular topic and remaining responses will likely occur periodically on Monday through Thursday.

Please note: Response to questions/concerns posted on Friday through Sunday will typically require some additional turn-around time.

### **Professional Dispositions**

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/>.

### **GMU 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://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](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.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/> .**