GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
Instructional Design and Technology Program
EDIT 801 Section 001: Nature and Process of Design
3 Credits, Fall 2019
4:30 - 7:10 pm, Mondays Fairfax Campus – KRUG15

Faculty

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University Catalog Course description

Examines multi-disciplinary and cross-disciplinary perspectives on the nature and process of designing and developing learning technologies.

Course Overview

This course focuses on exploring multi- and cross- disciplinary views of design processes to inform and engage students involved in the design and research of learning technologies in the observation and analysis of the process of design and design thinking. The course is designed to provide an opportunity for students to examine the philosophical as well as pragmatic aspects of both systematic and non-systematic approaches to design to promote inquiry, synthesis and action for the purposes of design and research. Multiple domains incorporate design processes and this course will allow students to build a deeper understanding of design as a "generative human agency." The course will also involve students in observations of a design context or team to permit reflection, generation and individual effort or collaboration toward a draft of a potentially publishable paper related to examining an aspect/context of design through a multi- and cross-disciplinary lens. Participants will share perspectives through on-line virtual discussion of the readings, carry out qualitative observations of a design team, conduct a literature review on design within a particular discipline and contrast it with other perspectives on design presented by their peers in a cumulative final paper.

Course Delivery Method

This course will be conducted in a blended, face-to-face and online manner via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site (mymason.gmu.edu) using your Mason email userid and password. The course site will be available on the first day of class. **The course will meet <u>face to face</u> on the following Mondays: 08/26, 09/09, 09/30, 10/07, 10/21, 11/04, 11/11, 12/02**.

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 (Mac or Windows) or a tablet running Windows 8.1 or later versions.

Learning Outcomes or Objectives

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

1. Investigate the multidisciplinary nature of design process
2. Examine the interaction between design team members and how observations of a design team intersect with the theoretical and applied literature with actual design process
3. Examine the construct of "design thinking" and its instantiations through qualitative observational research
4. Demonstrate a written synthesis of an applied design observation experience grounded in applicable literature on the practice of design

Professional Standards

This course addresses the following 2012 professional competencies of the International Board of Standards for Training, Performance, and Instruction (IBSTPI)

1. Communicate effectively in visual, oral and written form.
2. Apply research and theory to the discipline of instructional design.
3. Update and improve knowledge, skills, and attitudes pertaining to the instructional design process and related fields.
4. Apply data collection and analysis skills in instructional design projects

Required Texts

Crouch, C. & Pearce, J. (2012). *Doing research in design*. London: Bloomsbury.

Dede, C., Richards, J., & Saxberg, B. (2018). *Learning engineering for online education: Theoretical contexts and design-based examples*. New York: Routledge.

Supplemental readings and resources will be available for review on the course site and commentary by students. These additional resources will be organized according to the course modules or weeks and should be explored weekly.

Course Assignments

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, etc.).

Design Story Virtual Presentation (15%)

This doctoral seminar course requires exploration into the act of design, which can occur in various contexts and settings. Therefore, creating a 15-20 minute "design story" through investigation and synthesis of a manifestation of the act of design constitutes exploring this construct. This course assumes a broad view of the act of design that may include the following attributes: 1) acting on the physical world; 2) addressing human needs; and 3) generating a built environment. Given this broad definition, many activities may be considered to involve design practice and design research. This assignment will explore the "…general human process that we use to understand and to shape our world" that constitutes design. Each student will create a virtual story-based presentation related to a design act or process that they have experienced.

Design stories can encompass personal and synthesized knowledge and experience related to the broad conceptualization of design or the exploration of a new context of design.

Class Participation (15%)

Being an effective class participant is very important in this course because much of what you will learn will be from the other students in class. Effective class participation involves not only preparation and speaking skills, but also listening skills, contributing to course discussions both in-class and online, and commenting on peer contributions both in-class and online. Specifically:

- In-class/online discussions: Students must make significant contributions towards building a shared interpretation of the texts and theories being discussed. This includes participation in class and online discussions and in textual analysis of the readings related to individual areas of interest. (5%)

- Contributions to group process: Students must make significant and equal contributions towards any assigned in-class or online group task or assignment. (5%)

- Peer critique: Students must also reflect upon, comment and edit analytic contributions/paper sections that others have written at different intervals of the semester. (5%)

Annotated Literature Review (20%)

Each student will identify at least 10 journal articles related to his or her identified interest in design and theoretical lens for research. Exploring research and theory related to the design constructs in the literature provides a basis for inclusion in the research paper assignment and framing the upcoming observational research. In this assignment, the student will list and briefly annotate in a paragraph or two the key points of each of the journal articles reviewed. An additional paragraph will be submitted describing how these selected articles collectively will inform the upcoming observational research. The key points will subsequently be synthesized into a literature review section of the individual or collaborative paper for submission at the end of the course. This assignment will be submitted under the designated area in Blackboard. An assessment rubric is provided at the end of this syllabus and in Blackboard.

Observation of Actual Design Context (20%)

Students will (a) identify an existing design act, environment or context (interpreted broadly) to observe in an educational, organizational, corporate, medical, non-profit, military or other approved setting. Students will operationalize a theoretical lens through which the phenomena (design context) is viewed and analyzed as an interpretive lens. Each student will then collect observational qualitative data in several sessions in an applied study activity related to the selected identified construct in design process, design context and/or design thinking event or setting. These observations will be documented on the course site posting samples of raw data, notes, photographs, etc. as evidence of the progressive analysis using qualitative case study methods to inform the writing of a draft analytic paper described below. Each student will be expected to post the progression of their analysis and drafts (either individually or in a collaborative effort) which then will be incorporated into a cohesive qualitative paper. This assignment will be submitted under the designated area in Blackboard. An assessment rubric is provided at the end of this syllabus and in Blackboard.

Individual or Collaborative Research Paper (30%)

Each student will contribute to an individual (approx. 10 pgs.) or collaborative (approx. 20 pgs.) qualitative research paper. This paper will reflect a qualitative analysis of their observations of the selected design context intersected with the applied and research literature on the act of design, design process or design thinking in a specified context. The student or student dyad has previously identified an important issue or aspect of design or design thinking for observation in an actual design context and has begun to frame this phenomenon in the literature review. This assignment requires a synthesis of emergent and important insights from the observational data analysis related to the constructs of design. The paper will take the form of a case study informed by the literature (other applied research or empirical research methodologies may be considered as well upon discussion with the instructor). If a collaborative paper is selected, each student will be expected to contribute an equal number of references and analysis to write an equivalent individual section of the paper. The evolving individual sections and drafts will be uploaded to Blackboard to show a progression of the collaborative paper as well as provide evidence to designate who contributed what part of the synthesis and writing. The individual research paper should post periodic rough drafts of the paper during the last few weeks to demonstrate progressive improvement of the work.

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.).

Design Story Virtual Presentation	15%
Class Participation	15%
Annotated Literature Review	20%
Observation of Design Context	20%
Individual or Collaborative Research Paper	30%
Total percentage	100%

Grading Scale

Your final grade will be based on the following scale:
A+ = 97-100; A = 94-96; A - = 90-93; B+ = 86-89; B = 83-85; B- = 80-82; C = 70-79; F = <70

Course Expectations

- Course Week: Our course week will begin on the day that our face-to-face meetings take place (**Monday**) and finish on **Sunday.**

- 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 3-4 times per week**. In addition, students must attend all **face to face meetings** listed above.

- 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 (timeline)** 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.**

- 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.

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/

Professional Dispositions

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

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 https://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/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/