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

EDIT 732 Section DL1: Analysis and Design of Technology-Based Learning Environments
3 Credits Fall 2015
Wednesday 4:30 – 7:10 pm
Fairfax Campus – Exploratory Hall L102 (ALT Classroom)

PROFESSOR:

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COURSE DESCRIPTION

A. **Prerequisites –** EDIT 730 or permission of instructor

B. **University Catalog Course description:** Enables design, implementation, and evaluation of technology-based education and training materials using advanced computer-based authoring tools.

COURSE DESCRIPTION:

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.

LEARNER OUTCOMES

This course is designed to enable students to:

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:

This course adheres to the following Instructional Technology Program Goals and Standards for Programs in Educational Communications and Instructional Technologies established by the Association of Educational Communication and Technologies (AECT) under the National Council for the Accreditation of Teacher Education (NCATE).

Standard 1 – Design

1.1.2.a Demonstrate in-depth synthesis and evaluation of the theoretical constructs and research methodologies related to instructional design as applied in multiple contexts.

1.1.3.b Utilize the research, theoretical, and practitioner foundations of the field in the development of instructional materials.

1.1.4.a Conduct basic and applied research related to technology integration and implementation.

1.1.5.c Articulate the relationship within the discipline among theory, research, and practice as well as the interrelationships among people, processes, and devices.

1.3.a Identify multiple instructional strategy models and demonstrate appropriate contextualized application within practice and field experiences.

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

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

CLASSROOM: This class meets in the Active Learning and Teaching (ALT) Classroom. It 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 Pro would be optimal.

COURSE ASSIGNMENTS AND EVALUATION

A. Assignment Descriptions

Participation/Teamwork Contributions to Group Process (30%)

This course requires significant online asynchronous, synchronous and face-to-face participation and interaction. Each member of small teams (5-6 people) will interact inside and outside of class to identify and explore a design challenge requiring the investigation, design and analysis of a technology-based learning environment. Each student will be expected to participate and contribute to each assignment in a self-selected, rotating role with each student taking leadership on one designated assignment (co-leadership can be facilitated if necessary to evenly distribute tasks). However, each student is also expected to individually contribute to all project deliverables and document their contribution in the team member evaluation form for each deliverable provided by the instructor. Students will initially self-evaluate what he or she can bring to the design group as a function of his or her knowledge, skills, capacities and preferences to be assigned to a design team and prime the group for cohesion and success. Successful collaboration and respectful, professional interaction among team members is a core competency of this course and will be facilitated by online team meetings (through Blackboard Collaborate or other web conferencing tool). Student design teams are expected to schedule at least one group meeting per week (beginning the third week of class) addressing their selected challenge. Student design team members may elect to assign rotating roles for each project deliverable assignment such as:

- Lead, Project Manager, Team Member, Worker
- Content Creator, Author, Content Processor, Reviewer, Editor
- Presentation Creator, Designer, Graphics, Applications
- Planner, Project Manager, Coordinator, Participant
- Mediator, Moderator, Facilitator, Proponent, Advocate,
- Representative, Contributor, etc.

As part of this course, students are expected to find ways to work online and face-to-face respectfully and successfully in their teams as would be expected in a consulting or professional position. Each student will complete a team member evaluation for each deliverable commenting on their own and their team members' contribution to the project deliverable. This information is one of many points of data considered and triangulated by the instructor along with individual online presence and interaction as well as contribution to each team deliverable that encompass individual grades.

User Interaction Design and Development (60%)

A small group of 5-6 students (referred to as your design team or group) will individually contribute to the collective purpose of initially identifying and investigating a design problem and context implementing user experience design processes, instructional design processes and related techniques to address the design problem. Student design teams will successfully negotiate this design challenge involving mobile or other technologies and teaching/learning/training (must be instructional related and not purely informational or entertainment driven) investigating specific content, context and device or interface design. Design groups will collaboratively progress through six project deliverables that will ultimately result into a current technology-based learning prototype for varying devices (e.g. mobile phone app, tablet app, Web-based learning environment mobile content, Internet of Things system or other device related to teaching, learning and training). The purpose of this assignment is to broaden your design skills and to investigate current technology as well as design processes and techniques that complement basic instructional design practice. The process will progress through the following detailed project deliverables:

1) **Project 1: Topic and client selection and product concept statement**

Student design teams will initially brainstorm design problem topics that may be familiar or interesting to them as well as identify client/organization contacts that may facilitate the collection of relevant information to fully investigate the formal or informal educational or training problem. Teams will write a brief (150 word) report and product concept statement that will do the following:

- Establish a client for your project.
- Establish a mobile product or other application system for which you will develop a significant user interaction design and conceptual prototype (to extend beyond an existing software system such as an existing LMS).
- Negotiate with your team to discuss and determine project
- Get your client on board (make sure they are accessible) and target product or application system approved by the instructor. Earlier approval is better, in case you have to make some adjustments or find a different client.
- Write and refine (several times) a system concept statement for your target system and intersect with ISD and user experience design principles/processes.

2) **Project 2: Contextual inquiry and analysis**

Contextual inquiry and analysis involves investigating the design challenge context. This context may encompass formal work-related environments or formal or informal education/museum/organization, etc. settings depending on the design challenge selected by the team. Regardless of the context, "user work activity data gathering" or user research processes will be employed by the team to uncover information about the context, setting, users, processes, content, etc. relevant to the selected design challenge. This will require at least one personal field visit to the site or design context to observe and immerse yourself in the situation and empathize with the stakeholders' perspectives through interviews and observation necessary for a human-centered design experience. Teams will post their methods of investigation in preparing for the field visits/interviews, the protocol they plan to use for collecting data and methods of analysis based on the suggestions in the textbook and supplemental materials provided by the instructor. The data collected from the field visit and interviews will be captured, organized, posted and analyzed to glean insights for later modeling and design (posting documentation such as photos of process/context, notes, graphics, video etc is highly encouraged). A report of the team's planning, documentation and methods of analysis carried out and synthesized results will be posted in a brief report or description of processes as well as posted "work" activity affinity diagram (WAAD) and workflow or flow model that falls from the data collection and analysis.

3) **Project 3: Requirements and modeling**

Extracting needs and requirements of your technology-based learning system/mobile device/interface design from the work activity affinity diagram demands a systematic, deductive approach based on what you have learned from prior contextual analysis. A focus on user needs or human-centered design processes is crucial to arrive at relevant requirements. Attention to the instructional design principles or constructs at this point is also important to fulfill the requirement of connecting the user experience design process to important instructional design principles that will embody your design. This project deliverable will result in at least 10 interaction, instructional and system requirement statements generated by your team in parallel, dyads or in whole team collaboration documenting the process. These requirement statements will be posted to the course site as well as emotional impact requirements and constraints. Requirements will then be prioritized and validated or reviewed with a stakeholder or participant reported on the course site.

Student teams will also construct varying design-informing models in this assignment depending on the

design challenge and contextual analysis. Design teams may choose among user models and roles/classes, social models, usage scenarios/models, task structure models, task interaction models, use cases, work environment models, etc. based on their interpretation of the requirements for design. Representation of the modeling, as well as reporting of the needs and barriers to usage in a brief summary report should be posted for this project deliverable by the due date on the following calendar.

4) **Project 4: Design**

The best design ideas can come from allowing yourself and your team to generate many design ideas, fluidly and rapidly. In the design phase, your team will generate either individually or together user personas and potential ideas that promote varying and wild ideas enhancing creativity and innovative directions for your design. Your team will post representation of your personas, ideation and sketching of multiple initial design ideas related to the personas for your design challenge. Showing a progression of your team's ideas is ideal here as they will morph and change or combine and define the eventual direction of your design. Consideration of the designer and user mental models and their differences is important during this phase as well. Posting of the mapping of the designer's mental model and the user's mental model is also an outcome of this project deliverable.

A conceptual design using metaphors or ecological constructs to frame high level conceptual design with a system ecology, interaction or emotional impact perspective should also be posted for this deliverable represented by a graphic or drawing as well as storyboard sketching of more detailed interaction. Also, detailed interface design with annotated wireframes represent the maturation of your design ideas progression and will be posted on the course site.

5) **Project 5: Prototype and Pilot Test**

Prototyping and pilot testing your design can be accomplished in many different ways. In this course, we will annotate and wireframe our design ideas but will also strive for the highest fidelity of prototyping possible given time and skill constraints. This will likely result in varying representations of prototypes across design teams which is appropriate as it may expand our understanding of different available tools and techniques for this part of the user experience design process. Many of the prototyping techniques described in the text are appropriate here such as physical mock-ups and paper prototypes progressing toward the use of current, software-based tools that each team can investigate. The important outcome is to show a progression of your prototype through an increasing fidelity of design demonstration or implementation.

Once your prototype is ready for primetime or testing out by a user, select a representative target audience member to try out each task that you have designed and gather their anecdotal feedback to record and report on the course site. This ensures some useful representative feedback on your design.

6) **Project 6: Presentation**

A successful client presentation is predicated on preparation, organization and practice. Clients and stakeholders of your projects will be invited to the course final presentation to hear about your process and see your prototypes during the semester. Teams are expected to prepare a 20 minute (depending on number of teams and allocated time) presentation with an informative slide show describing your user experience design process and progression toward your prototype.

Other Requirements

MID-SEMESTER and END of SEMESTER REFLECTION - Intersecting instructional design process with user experience design reflection

The remaining deliverable for this course is a three paragraph reflection on how the user experience design

process intersects with the instructional design process based on each individual student's experience in the course. This will happen twice during the semester – once at the mid-point and once at the end of the semester. Reflection on the following is required at the end of the semester:

- how have you experienced the user experience design process to this point this semester?
- how does it intersect with the instructional design process?
- what would you do differently next time in your process?
- what suggestions might you have for improving the course or assignments at this point?

CRITERA FOR EVALUATION

Performance-Based Assessments - This course includes multiple performance-based assessments with allocated percentages and corresponding point values (listed in rubric at end of syllabus):

Participation/Teamwork Contributions to Group Process		30%
User Interaction Design and Development Project		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: Project presentation	10%	
Intersecting instructional design process with user experience design reflections		10%
Total percentage (referred to as points in individual items in rubrics below)		100%

B. Grading scale: A+ = 97-100 A = 94-96; A - = 90-93; B+ = 87-89; B = 84-86; B- = 80-83; C+ = 77-79; C=74-76; C=70-74 F = <70

C. Course Content Availability/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 Wednesday 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-Thursday. Response to questions/concerns posted on Friday-Sunday will typically require some additional turn-around time.

D. Blackboard Support

This course intensively implements Blackboard (for asynchronous sessions) and Blackboard Collaborate (for synchronous sessions). Beyond the introduction to these tools in class, students can access the following support resources:

1) GMU Course Support for Blackboard in General
   https://mymasonportal.gmu.edu/webapps/portal/frameset.jsp?tab_tab_group_id=_230_1
2) GMU Top Questions and Additional Tools for Blackboard Mobile and Collaborate
   http://coursessupport.gmu.edu/
3) GMU Course Support form for problems
   http://coursessupport.gmu.edu/contactus.cfm
4) Blackboard Collaborate Support
   http://support.blackboardcollaborate.com/ics/support/default.asp?deptID=8336

BLACKBOARD REQUIREMENTS

Every student registered for any Instructional Design and Technology course with a required performance-based assessment is required to submit this assessment, **User Interaction Design and Development Project and Individual Team Member Evaluation** to Blackboard (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in Blackboard. Failure to submit the assessment to Blackboard will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required Blackboard submission, the IN will convert to an F nine weeks into the following semester.

GMU POLICIES AND RESOURES FOR STUDENTS

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

b. Students must follow the university policy for Responsible Use of Computing (See http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).

c. 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 use their MasonLive email account to receive important University information, including messages related to this class.
See *http://masonlive.gmu.edu* for more information.

d. 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/).

e. 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/).

f. Because this is a computer classroom, we will frequently be using the internet as a means to enhance our discussions. We will also be using the computers for our in-class assignments. Please be

respectful of your peers and your instructor and do not engage in activities that are unrelated to the class. Such disruptions show a lack of professionalism and may affect your participation grade.

g. 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/).

h. The University Catalog and University Policies may be found at the following links: http://catalog.gmu.edu/ and http://universitypolicy.gmu.edu/

i. The calendar of religious holidays and observations is listed http://ulife.gmu.edu/calendar/religious-holiday-calendar/ . It is the student's responsibility to speak to the instructor in advance should their religious observances impact their participation in class activities and assignments.

j. As in many classes, a number of projects in this class are designed to be completed within your group. With collaborative work, names of all the participants should appear on the work. Collaborative projects may be divided up so that individual group members complete portions of the whole, provided that group members take sufficient steps to ensure that the pieces conceptually fit together in the end product.

PROFESSIONAL DISPOSITIONS

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

CORE VALUES COMMITMENT

The College of Education & 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/.

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website http://gse.gmu.edu/.

PROPOSED CLASS SCHEDULE

*Due to the fluid, real-world and dynamic nature of the design process/context, the instructor reserves the right to change the syllabus/schedule during the course if needed based on project needs/requirements. Every effort will be made to keep students abreast of changes as soon as possible but professionalism and demonstration of your adaptive expertise as a designer/design researcher and flexibility in complex, real world projects is expected in this course.

WEEK	IN CLASS ACTIVITIES **Exploratory Hall L102 (ALT Classroom)**	PREPARATION FOR FOLLOWING CLASS ACTIVITIES
1 Sept 2 **(F to F)**	Introduction Overview of Syllabus: Schedule and Requirements Discussion of asynchronous, synchronous and face to	 - Read Preface and Chapter 1 (Harson & Pyla – H&P) - Read Chapters 1 &2 (Sanders &

	face session expectations Examples of Project Presentations Introduction to Design Opportunities Teaming Determine design teams Team Information Exchange	Stappers) - Read Chapter 1 (Rowland, et al.) - Discuss project ideas for discussion and negotiate selection. Submit for instructor comment. - Review weekly course resources
2 Sept 9 **(F to F)**	What is User Experience Design? Co-creation and Creativity Mobile Design/Internet of Things Design Design Project Possibilities Team Discussions Schedule design team collaboration	- Read Chapter 2 (H&P) - Read Chapter 3 (Sanders & Stappers) - Read Chapter 2 (Rowland, et al.) - Review weekly course resources - Discuss topic/client/project - Initial brainstorming of potential design problems, access to clients, constraints and context in design team discussions
3 Sept 16 **(Asynch)**	Project discussions Lifecycle of User Experience Design Generative Tools Things and Connected Devices: Pondering Design Issues	- Read Chapter 3 (H&P) - Read Chapter 4, 5 & 6 (Sanders & Stappers) - Read Chapter 3 (Rowland, et al.) - Come to consensus on selected design problem, client, access, constraints and context in online design team discussion - Each student research/investigate, contributes and reviews others' resources related to selected project to post in team area on Blackboard - Write Project 1 (150 word report and broad product concept statement

		following guidelines in H&P)
4 Sept 23 **(F-to-F)**	Introduction to Contextual Inquiry and Planning **PROJECT 1 Topic and client selection and product statement DUE** (posted online by end of day of class (12pm midnight Sept 23rd) with completed individual team contribution evaluation form. **Meeting of Individual Design Teams** Advance work in design teams to further planning and describe instructional/ training need, design problem synthesize resources, identify context of use, brainstorm ways to uncover client/partner goals, problems, drivers, barriers, potential solution systems directions, etc.	- Read Chapter 4 (H&P) - Read Chapter 4 & 5 (Rowland, et al.) - Begin preparation/contact for contextual inquiry into design problem/challenge (e.g. field visits and/or interviews) - Review weekly course resources
5 Sept 30 **(**Asynch**)**	Conduct Contextual Inquiry Introduction to Networking and UX Products/Services Understanding People and Context	- Read Chapter 5(H&P) - Read Chapter 7 (Sanders & Stappers) - Read Chapter 6 (Rowland, et al.) - Conduct contextual inquiry into design problem/challenge (e.g. field visits and/or interviews) - Have raw data for next class
6 Oct 7 **(F-to-F)**	Contextual Inquiry and Analysis Requirements and Modeling Translating Research into Product Definitions	- Read Chapter 5(H&P) - Read Chapter 7 (Rowland, et al.) - Analyze raw data in class from contextual inquiry related to design problem/challenge (e.g. field visits and/or interviews)

7 Oct 14 (Asynch)	Contextual Analysis Interaction Design Requirements Embedded Device Design Work in Teams to Analyze Data `	- Read Chapter 6 (H&P) - Read Chapter 8 (Rowland, et al.) - Analyze data from contextual inquiry and write report
8 Oct 21 (Asynch)	**PROJECT 2: Contextual Inquiry and Analysis Report DUE** with individual team contribution evaluation form. Design Informing Models Interface and Interaction Design	-Read Chapter 7 (H&P) - Read Chapter 9 (Rowland, et al.) -Begin requirements and modeling
9 Oct 28 **(**Asynch**)**	Design Thinking, Ideation and Sketching Design teams draft requirement statements and modeling Cross-Device Interaction and Interusability	- Read Chapter 8 (H&P) - Read Chapter 10 & 11 (Rowland, et al.)
10 Nov 4 **(F to F)**	**PROJECT 3: Requirements and modeling DUE** with individual team contribution evaluation form. Mental Models and Conceptual Design Interoperability Responsive and Responsible Design – Mobile and IoT In-class design session.	Read Chapter 9 (H&P) - Post personas and ideas in sketches, graphics, etc. - Read Chapters 12 & 13 (Rowland, et al.)

11 Nov 11 (Asynch)	**MID-SEMESTER REFLECTION DUE** Work on Mental models and Conceptual Design Work on Design Thinking, Ideation and Sketching Key Interactions and Designing with Data	- Read Chapter 11 (H&P) - Read Chapter 14 (Rowland, et al.) - Post personas and ideas in sketches, graphics, storyboarding etc. - Post high level conceptual design and mental model mapping
12 Nov 18 (Asynch)	**PROJECT 4: Design DUE** with individual team contribution evaluation form. Plan for Prototyping Iterative Design: Prototyping and Learning	- Refine design and begin detailed design - Begin annotated wireframes - Read Chapter 15 (Rowland, et al.)
13 Nov 25	THANKSGIVING RECESS	NO CLASS
14 Dec 2 (Asynch)	Prototyping Implement Detailed Design Processes Plan anecdotal feedback from pilot test with potential user(s)	- Refine and Prototype Design
15 Dec 9 **(F-to-F)**	Implement and Document Detailed Design Finalize Prototype, Presentation Conduct pilot test	- Finalize Prototype Design - Prepare Presentation
16 Dec 16	**PROJECT 5: Prototype and Pilot Test DUE and PROJECT 6: Presentation DUE** with individual team contribution evaluation form. **FINAL REFLECTIONS DUE**	**Congratulations!**

(F to F)	**FINAL PRESENTATION**	

ASSESSMENT RUBRIC(S):

Participation/Group Project Process rubric for both in-class and online participation and contributions:

- Outstanding contributor/team member: contributions reflect exceptional preparation and full participation in groups. Ideas offered are always substantive, providing one or more major insights as well as suggestions for group. Attended all group meetings (unless discussed with instructor), demonstrated exceptional effort on individual and lead tasks, exceeded individual contribution requirements and was instrumental in leading the group forward. Respectfully acknowledged and integrated all members' skills in project development process. Worked as an excellent team group member and contributor. If this person were not a member of the group, the quality of project would be diminished markedly.

- Good contributor/team member: contributions reflect good preparation and full participation in groups. Good insights are always offered, providing one or more major ideas as well as suggestions for group. Attended all group meetings, demonstrated good effort on individual and lead tasks, met individual contribution requirements and was valuable in leading the group forward. Respectfully acknowledged and integrated all members' skills in project development process. Worked as a good team group member and contributor. If this person were not a member of the group, the quality of project would be diminished.

- Adequate contributor/team member: contributions reflect adequate preparation and adequate participation in groups. Some insights offered are occasionally, providing some ideas as well as suggestions for group. Attended majority of group meetings, demonstrated effort on individual and lead tasks, met individual contribution requirements. Respectfully acknowledged and integrated all members' skills in project development process. Worked as a team group member and contributor. If this person were not a member of the group, the quality of project would be somewhat diminished.

- Unsatisfactory contributor/team member: contributions reflect inadequate preparation and adequate participation in groups. There are little insights/contributions offered as well as suggestions for group. Missed a significant amount of group meetings, demonstrated inadequate effort on individual and lead tasks, did not meet individual contribution requirements for group. Did not respectfully interact and acknowledge all members' skills in project development process. Did not work well as a team group member and contributor. If this person were not a member of the group, the quality of project would be unchanged.

- Note: Students who do not participate or contribute will receive zero points in the applicable area.

Table 1 Participation/Contributions to Group Project Process Rubric (30%)

	Category 1	Category 2	Category 3	Category 4

CRITERIA	Unsatisfactory Contributor	Adequate Contributor	Good Contributor	Outstanding Contributor
Class participation	6	7	8	10
Project and Process group meetings	6	7	8	10
Project contributions	6	7	8	10
Score	18	21	24	30

Table 2 User Interaction Design and Development Project (60%):

Criteria	No Evidence	Beginning (Limited evidence)	Developing (Clear evidence)	Accomplished (Clear, convincing, substantial evidence)
Project 1: Topic and client selection and product concept statement (Total possible points – 5)				
Topic negotiated and agreed on with team and approved by instructor	No evidence of negotiation or agreement	Limited evidence of negotiation and agreement process without approval	Evidence of negotiation and agreement process with approval	Clear evidence of outstanding teamwork, negotiation and agreement process with timely submission and approval
Accessible client identified with contact name	No evidence of client and contact by deadline	Limited evidence of client contact or attempts but not confirmed by deadline	Evidence of established client contact but not confirmed by deadline	Client contact identified and established by deadline
Description of group/persons to serve as clients and/or participants in user experience design	No description of clients and	Limited description of clients and	Description of clients and participants	Concise, informative description of clients and

process	participants	participants	with some roles described	participants, roles in user experience design process
Proposal written in future tense, approximately 150 words, with name and description of organization/context , statement of what it will do, problem it will solve, if design or redesign, usefulness, users, etc.	No proposal submitted	Limited proposal submitted with concept statement	Adequate proposal submitted with what system will do, problem will solve, design vision, emotional impact goals	Outstanding proposal submitted with clear and specific system concept statement with what system will do, problem will solve, design vision, emotional impact goals
Topic connected to principles in instructional design (e.g. learning or training need established)	No evidence of ID process or principles	Limited evidence or thought of ID process or principles	Evidence or thought of ID process or principles intersected with user experience design process	High level of evidence or thought of ID process or principles intersected with user experience design process
Project 1: Total points				
Project 2: Contextual inquiry and analysis (Total possible points – 10)				
Prepared for field visits and interviews	No evidence of preparation	Limited evidence of preparation	Evidence of planning and preparation with posted documentation of data collection protocol	Outstanding, detailed evidence of planning and preparation with posted documentation of data collection protocol
Field visits and interviews professionally carried out and methodology reported	No evidence of field visit or interviews	Limited evidence of implementation of field visit and interviews	Evidence of field visits and interviews through process and methodology reported	Outstanding and thorough documentation of field visit and interview process, methods and reporting

Raw data collected, posted and organized	No evidence of raw data	Limited raw data not well-organized	Evidence of clear data collection methods and organization	Outstanding evidence of data collection, posting of process of collection and clearly organized for analysis
Analysis of work activity data through interpretation, consolidation and communication	No analysis	Limited analysis of data with limited interpretation, organization and communication evident	Analysis evident with some interpretation, consolidation and communication	Outstanding, in-depth analysis with interpretation, consolidation and clear communication of synthesis of information for design purposes
Work activity affinity diagram with roles and/or workflow model or equivalent posted	No diagram, workflow or equivalent posted	Limited diagram, workflow or equivalent posted	Beginning diagram, workflow or equivalent posted	Clear and thorough diagram, workflow or equivalent posted. Clear relationship to data collected and analyzed
Project 2: Total points				
Project 3: Requirements and modeling (Total possible points – 10)				
Interaction design requirements extracted, scoped and written as statements	No requirements written	Limited requirements with little evidence of scoping and statements	Evidence of scoping and requirement statements established	Excellent evidence of process of scoping and well-written requirement statements and documentation of process
Draft and progressive refinement of design-informing models	No evidence of modeling	Little evidence of modeling implemented	Evidence of design-informing models implemented connected to contextual	Excellent documentation of design informing models progression and evolution directly

			data	connected to contextual data
Project 3: Total points				
Project 4: Design (Total possible points – 10)				
Creation of personas that demonstrate sensitivity to varying audience and contextual needs for interface/learning design	No personas drafted	Limited personas drafted that are vague and not connected to user goals	Beginning level personas established and connected to contextual data	Excellent personas identified, written and aligned with user goals, roles or class, etc.
Progression of ideation documented and demonstrate iteration	No ideation document ed	Little ideation documented and no evidence of iteration of the design idea	Adequate level of ideation, documented with evidence of some iteration	Outstanding level of ideation documented with progression of iterations clearly demonstrated
Sketching demonstrated as visual exploration of ideas	No evidence of sketching of design ideas for conversati on and creativity	Little evidence of sketching of design ideas for conversatio n and creativity	Evidence of sketching of design ideas facilitating conversatio n and creative choices	Outstanding evidence of sketching of multiple design ideas, enhancing conversation and demonstrating creativity of group
Describe or map designers and users mental model and a conceptual design	No evidence of mapping of mental models and conceptual design	Little evidence of mapping of mental models and conceptual design	Attempts to map mental models and conceptual design across system ecology, interaction and emotional impact	Maps mental models and conceptual design thoroughly across system ecology, interaction and emotional impact
Annotated storyboards, Wireframes, and/or scenarios drafted to	No evidence of detailed	Little evidence of detailed	Evidence of annotated design	Outstanding evidence of detailed design

represent screens and navigation in detailed design	design document ation	design documentati on	documentati on	documentation with annotated storyboards, wireframes and detailed navigation represented and described
Project 4: Total points				
Project 5: Prototype and Pilot Test (Total possible points – 15)				
Determine and create highest level of fidelity of prototype and interactivity possible to best demonstrate design to users	No evidence of prototype	Limited prototype with limited representati on of functionalit y	Adequate prototype with representati on of functionalit y for testing by users	Excellent prototype with high level of functionality for testing with users
Pilot test design with users and report results	No pilot test conducted	Limited pilot testing with a single users	Pilot testing completed with more than one user and reported results	Thoughtful pilot testing with more than one user and thorough results reported with excellent insights for iterative design or redesign
Project 5: Total points				
Project 6: Presentation (Total possible points – 10)				
Professional presentation or walkthrough of design	No evidence of preparatio n or organizati on for presentati on	Little evidence of preparation or organizatio n in delivery of presentation	Evidence of preparation, organizatio n and practiced delivery of presentation	Excellent presentation evidenced by organized, practiced, professional delivery of presentation
Project 6: Total points				
Total Points Across Projects 1-6				

Table 3 - Intersecting instructional design process with user experience design reflection (10%):

Criteria	No Evidence	Beginning (Limited evidence)	Developing (Clear evidence)	Accomplished (Clear, convincing, substantial evidence)
Individually reflected on user experience design process to this point	No reflection	Limited reflection and insight	Insights articulated into experience	Deeper reflection and rich insights on the user experience design process to this point in the semester
Individually reflected on intersection between user experience design process and instructional design process.	No intersection stated	Limited intersection points articulated	Some intersection among and between processes	Significant thinking demonstrated on if and how the two processes connect or do not connect
Improvements for next time in individual, team and course process in both positive and negative statements	No improvements stated or only negative feedback provided	Limited suggestions provided	Some negative and some positive comments and suggestions made	Balanced commentary on individual, team and course as well as actionable suggestions made to improve the experience for all going forward
Reflection (Total possible points – 10)				