

EDIT 752 (Immersion)
Design and Production of Multimedia and Hypermedia Learning
Environments
Course Syllabus

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Office Hours: Mondays 3:00pm – 4:00pm or by appointment

Required Texts:

1. E-Learning and the Science of Instruction, Ruth Colvin Clark & Richard E. Mayer, Pfeiffer 2003
2. The Design of Sites, Douglas K. Van Duyne, James A. Landay, & Jason I. Hong, Addison-Wesley 2003
3. Planning and Conducting Formative Evaluations, Martin Tessmer, Kogan Page 1993

Optional Text:

1. Evaluating Training Programs: The four levels (2nd edition), Donald L. Kirkpatrick, Berrett-Koehler 1998 (free electronic text from GMU library)

Methodology:

This course will provide students with the opportunity to explore issues related to the design of Web-based instruction. Emphasis within the course will be placed on discussing and communicating the design of powerful instructional strategies possible on the Web. Students will be expected to evaluate various strategies, associate current Web-based technology with learning theory and participate in the design process of a prototype instructional Web site based on specific content.

Course Objectives:

The objectives for this course include the following:

- application of the instructional design process to the development of Web-based instruction
- exploration of technological tools associated with WWW and their use for learning and instruction
- evaluation of Web-based instructional sites and critique of an evaluative tool
- linking Web-based instructional strategies with relevant learning theory
- planning and development of an instructional Web site prototype

Assignments

1. TEXT PRESENTATION (15 Points): Students will lead a class discussion related to a text chapter. Their discussion should be supported by either a detailed outline or powerpoint a presentation.

2. TEAM & PEER FEEDBACK (15 Points)

Students will be assigned to provide formative feedback to one other team through out the semester. Students will provide written feedback in a timely manner on the following components: performance/needs analysis, design approach, formative evaluation, and presentation.

3. PERFORMANCE & NEEDS ANALYSIS (10 Points): This assignment will provide the opportunity to familiarize students with proposed project(s) and define the specific parameters of the project. This assignment will be completed by the entire class with individual students proactively contributing to the effort. Assisting the clients in defining their goals, determining relevant data sources and planning data gathering will take place both inside and outside of class. Subject matter experts who are representative of the client organization will be available to students in class at several points during the semester as well as outside of class via email, phone and in-person interviewing. The initial requirements of this assignment include detailing and documenting the performance analysis plan including the following elements:

- Goals of organization
- List of data sources and methods of data gathering
- Result of Analysis
- Description of organizational and individual drivers (and barriers) to success
- Priorities for Training or Development
- Recommendations and rationale

4. DESIGN APPROACH (10 Points): Once the Performance Analysis recommendations have been approved by the client and/or subject matter experts, groups will determine the specific needs of identified project modules (selected from the performance analysis recommendations) through a needs assessment, audience and environment analysis. This will result in detailed description of needs related to specific content for instruction or training. This document will be shared with the instructor and subject matter experts for approval to proceed and include the following elements:

- Determine present condition related to a specific need (performance/needs analysis)
- Define related specific knowledge and skills (task analysis)
- Identify any missing knowledge and skills (task analysis)
- Instructional objectives
- Identify instructional strategies & approaches

5. DESIGN TREATMENT (20 points): Established design groups will collaboratively develop a design treatment or design approach document that will provide sufficient detail for the client regarding the proposed module development. Both the instructor and

client will review and approve the design treatment or approach prior to extensive development of the module. The treatment will present the design concept and related materials in a professionally-polished document and will include the following components:

- Overview of problem, setting and client need
- Performance & Needs analysis
- Task analysis
- Design approach and instructional strategies employed
- Flowcharts & Storyboards
- Testing & Formative evaluation
- Recommendations

6. PROTOTYPE (20 points): Design groups will design and develop a multimedia prototype instructional module on a specific content area selected from several topics early in the course. Groups will apply the instructional design process (from audience analysis to formative evaluation) to multimedia development interacting with outside subject matter experts who will also function as clients for the project. Groups will work with the clients to determine the scope of the content, successfully interact with their assigned group members to produce an actual section or prototype of the instructional module using a computer-based authoring (Authorware, Toolbook, Director) or web tools and formatively evaluate their design. The prototype should be robust enough to communicate the overall design approach and actively engage the user with creative application of instructional strategies. The prototype and a report on the process and results of the formative evaluation of the module will be presented to the client and the class at the conclusion of the semester.

7. FINAL PRESENTATION (10 Points)

The final presentation should include participation by all team members and cover the following topics: instructional goals, the process you used to achieve the goals, findings from research and/or analyses, recommendations, design approach, and prototype demonstration/walkthrough.

Class Schedule

DATE	TOPIC	ASSIGNMENT
Jan. 23 Week 1	<ul style="list-style-type: none"> • Welcome & Review syllabus • Recap Fall 05 final presentations • Performance/Needs Analysis 	<ul style="list-style-type: none"> ▪ Clark ch. 1-2 ▪ Van Duyne ch. 1-5
Jan. 30 Week 2	<ul style="list-style-type: none"> • E-learning • Performance/Needs Analysis (<u>present to class</u>) 	<ul style="list-style-type: none"> ▪ Van Duyne Patterns A,B,C,I ▪ Clark ch. 3-5
Feb. 6 Week 3	<ul style="list-style-type: none"> • <u>Present Patterns A,B, C/I</u> • Performance/Needs Analysis Due 	<ul style="list-style-type: none"> ▪ Van Duyne Patterns D,E,F,G
Feb. 13 Week 4	<ul style="list-style-type: none"> • Design Approach • <u>Present Patterns D,E,F,G</u> 	<ul style="list-style-type: none"> ▪ Clark ch. 6-8 ▪ Van Duyne Patterns H,J,K,L ▪
Feb. 20 Week 5	<ul style="list-style-type: none"> • Design Approach (<u>present approach to class</u>) • <u>Present Patterns H,J/L,K</u> 	<ul style="list-style-type: none"> ▪ Clark ch. 9-10 ▪ Revise Design Approach
Feb. 27 Week 6	<ul style="list-style-type: none"> • IT Panel • Design Approach Due 	<ul style="list-style-type: none"> ▪ Clark ch. 11-14 ▪ Tessmer ch. 1-2
Mar. 6 Week 7	<ul style="list-style-type: none"> • Flowcharts & Storyboards • Formative Evaluation 	<ul style="list-style-type: none"> ▪ Tessmer ch. 3-6 ▪ Van Duyne, Appendix A
Mar. 13 Week 8	<ul style="list-style-type: none"> • NO CLASS – SPRING BREAK 	<ul style="list-style-type: none"> ▪ Work on Flowcharts & Storyboards
Mar. 20 Week 9	<ul style="list-style-type: none"> • Flowcharts & Storyboards • Formative Evaluation 	<ul style="list-style-type: none"> ▪ Work on Flowcharts & Storyboards ▪ Kirkpatrick ch. 1-3
Mar. 27 Week 10	<ul style="list-style-type: none"> • Flowcharts, Storyboards, & Formative Evaluation Plan (<u>present to class</u>) • Summative Evaluation 	<ul style="list-style-type: none"> ▪ Kirkpatrick ch. 4-8
Apr. 3 Week 11	<ul style="list-style-type: none"> • Flowcharts, storyboards, & Formative Evaluation Plan Due • IT Panel 	<ul style="list-style-type: none"> ▪ Usability Testing
Apr. 10 Week 12	<ul style="list-style-type: none"> ▪ Dr. Clark @ AERA – Class Meets ▪ Conduct Usability Testing 	<ul style="list-style-type: none"> ▪ Write up usability testing results
Apr. 17 Week 13	<ul style="list-style-type: none"> • Work on Treatment and Prototype 	<ul style="list-style-type: none"> ▪ Work on Treatment & Prototype
Apr. 24 Week 14	<ul style="list-style-type: none"> • Work on Treatment and Prototype 	<ul style="list-style-type: none"> ▪ Work on Treatment & Prototype
May 1 Week 15	<ul style="list-style-type: none"> • 752 Final Presentations (Dry-run for Immersion) 	<ul style="list-style-type: none"> ▪ Revise treatment and prototype
May 8 Week 16	<ul style="list-style-type: none"> • SUBMIT FINAL PROTOTYPE & TREATMENT 	<ul style="list-style-type: none"> ▪

Expectations for Individually Produced Documents:

- English grammar, spelling and punctuation will be perfect!
- All documents will be delivered on time. 10% will be deducted from an assignment for each session that it is late.
- All documents will be error free, thus indicating that the student problem solved and planned ahead.

Class Make-up Policy:

If George Mason University is closed due to inclement weather on the day of class, the class will not be held. Material missed due to the cancellation of the first 3-hour class will be incorporated into the remaining class sessions. Should a second 3-hour session be canceled, all remaining class sessions will be 15 minutes longer. All subsequent classes missed will be rescheduled.

Grading Policy:

Grades are assigned in the following manner:

A= 100 – 90 B = 89.9 – 80 C= 79.9 – 70 D= 69.9 – 60 F= 59.9 – 0

Late assignments will be penalized 10 percent for each class session past the due date.