EDIT 705 Section 001: Instructional Design (Updated January 15, 2009)

DAYS / TIME / LOCATION	INSTRUCTOR: Wanda Mally
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COURSE OVERVIEW

Course Description from the University Catalog

Helps students analyze, apply, and evaluate principles of instructional design to develop education and training materials spanning a wide range of knowledge domains and instructional technologies. The course focuses on a variety of instructional design models, with emphasis on recent contributions from cognitive science and related fields.

Course Prerequisites

Prerequisites for this course are teaching, training or technical development or equivalent experience.

Course Objectives

Upon completing the course, students will be able to:

- Define instructional design
- Consider realistic aspects of the practice of instructional design
- Compare and contrast models of instructional design
- Debate existing perspectives on learning
- Gather and analyze informal or formal data related to an identified instructional need
- Produce production calendar for semester prototype development
- Conduct task analysis using an identified technique
- Conduct learner analysis
- Write instructional and/or performance objectives
- Determine types or levels of learning addressed
- Articulate design approach for learning environment and corresponding instructional activities and strategies
- Create storyboard and navigation layout for an instructional design project
- Produce limited prototype of design concept using electronic media of choice (e.g. Word, Powerpoint, Camtasia, Captivate, Dreamweaver, etc.)
- Conduct regular peer reviews or formative evaluation of prototype and report on findings
- Describe how summative evaluation of learning environment might take place

Delivery Format

All course activities for the semester will be held online. The course will be conducted using an asynchronous format consisting of the following:

- Assigned readings & research
- Instructor-provided notes
- Discussions on selected topics and case studies
- Student practical applications and peer in-progress reviews (IPRs)

Each week we will cover different topics in instructional design. Readings, instructions, activities and assignments for the week will be released every Monday morning by 7 a.m. and will remain available through the end of the semester. (However, please note that the first 7 weeks of the materials have already been made available.) It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities, and assignments due. Instructor office hours are available by appointment and can be conducted via telephone or via a private Blackboard chat forum. I do not have office hours on Sundays.

RESOURCES REQUIRED BY STUDENTS

Required Texts

Brown, A. & Green, T.D. (2006). *The essentials of instructional design*. Upper Saddle River, NJ: Pearson, Prentice Hall. (ISBN 0-13-118220-X)

Ertmer, P.A. & Quinn, J. (2007) *The ID Casebook: Case studies in instructional design*. Upper Saddle River, NJ: Pearson, Merrill, Prentice, Hall. (ISBN 0-13-171705-7)

Additional relevant online readings/resources reviewed on specific weeks will be provided.

Mason email Account and IT Listsery

As a GMU student, you will need to acquire a GMU email account. Contact the <u>IT Support Center</u> to activate your account. If you are an IT student, please also subscribe to the IT Listserv which will post job opportunities, program announcements, etc. <u>Directions</u> about how to subscribe can be located on the IT Program Website. Additional resources you will need for this course are listed below:

- Internet access
- Access to Blackboard (CE6) http://www.irc.gmu.edu/ce6transition/studentquickguidece6.pdf provides information on how to log in)
- Adobe Acrobat Reader

PROFESSIONAL STANDARDS

Association for Educational Communications and Technology (AECT); International Society for Technology in Education (ISTE) and National Educational Technology Standards (NETS):

- To design conditions for learning by applying principles of instructional systems design, message design, instructional strategies, and learner characteristics. (AECT)
- To develop instructional materials and experiences using print, audiovisual, computer-based, and integrated technologies. (AECT, ISTE-NETS)
- To use processes and resources for learning by applying principles and theories of media utilization, diffusion, implementation, and policy-making. (AECT)
- To plan, organize, coordinate, and supervise instructional technology by applying principles of project, resource, delivery system, and information management. (AECT)
- To evaluate the adequacy of instruction and learning by applying principles of problem analysis, criterionreferenced measurement, formative and summative evaluation, and long-range planning. (AECT, ISTE-NETS)
- Demonstrate a sound understanding of technology operations and concepts. (ISTE and NETS) use technology to enhance their productivity and professional practice. (ISTE and NETS)
- Understand the social, ethical, legal, and human issues surrounding the use of technology and apply that understanding in practice. (ISTE and NETS)

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS

All students must abide by the following:

- Students are expected to exhibit professional behavior and dispositions. See http://gse.gmu.edu for a listing of these dispositions.
- Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC H12 for the full honor code.
- Students must agree to abide by the university policy for Responsible Use of Computing. See http://mail.gmu.edu and click on Responsible Use of Computing at the bottom of the screen.
- Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See http://www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.

COURSE REQUIREMENTS

Discussion/Project/Presentation assignments

Students are expected to keep track of the scheduled assignments, which include the readings in preparation for each week, discussions and regular reviews/revisions of design & prototype materials.

Communication

Working 100% online requires dedication on the part of the instructor/facilitator and the students. As the instructor/facilitator, I rely on you to communicate to me any questions or problems that might arise. In such cases, you need to contact me immediately by email or phone.

PERFORMANCE-BASED ASSESSMENTS

Instructional Design Case Study Discussions and Newsletters (25%)

An electronic sign-up sheet is available in Blackboard for students to select one to two instructional design case studies from the Ertmer & Quinn text. (See the note in red below.) During the scheduled weeks, students will lead an online discussion forum on his or her selected case study. In addition to keeping the relevant individual design project materials updated and uploaded in accordance with the schedule (see the schedule section of the syllabus), students are required to have the case study review/synthesis posted and the discussion initiated by Monday morning at 9 a.m. on the week the case study is scheduled. Failure to post your design case on time will result in an automatic grade reduction in points per the rubric. (See the section on Evaluation Criteria.)

In the event there are no available case studies, you will be required to sign up for a newsletter. If you sign up for a newsletter, you are responsible for preparing a 1 to 2-page typed document summarizing the readings and discussions, showing relevance to previous and upcoming topics or current events/issues in training & education. The summaries must be forwarded via email to the instructor by midnight on the date specified in the description on the sign-up sheet so it can be incorporated into the newsletter the following day. At least five issues of the newsletter will be released over the course of the semester. Each newsletter theme will be aligned with one of the major milestones covered in the course as we complete them: media, production & project management; needs and tasks analyses; learner & contextual analyses; design & development; assessment, evaluation and metrics. The sign-up sheet in Blackboard contains the due date for each newsletter.

Note: Depending on the final roster head count, some case studies and/or newsletters might be reassigned by the instructor after the add/drop period has ended for the semester.

Preparing for the Design Case Study as a Facilitator

Students who sign up for a case study will be expected to have read the case several times, review the preliminary analysis questions and implications for ID practice at the end of each chapter and **go beyond the material presented in the text by connecting prominent issues in the case to personal experience or other research/applied information in the field of instructional design (e.g. academic journal publications, applied work contexts, learning theory, professional organizations in the field, relevant online materials, etc.)**. The format of the presentation is open but the discussion questions should be an attempt to create an engaging learning experience. Creativity is encouraged as well as exploration into the affordances of online learning environments (for example, role-playing, game-based, online synchronous/asynchronous approaches as well as engaging presentations, teaching and learning experiences or other instructional/training approaches). **NOTE:** Discussion blogs have been created for each of the case studies. These will be used for you to initiate the discussion and attach your analysis. Facilitators must notify the instructor in advance if any additional or special resources need to be arranged or set up for your case study.

Preparing for the Design Case as a Discussion Participant

All students will be expected to have read each case, review the preliminary analysis questions and implications for ID practice at the end of each chapter and participate in all case study discussions. (Note: If you have signed up for a newsletter, you are still responsible for participating in all case study discussions.) Students are also expected to have completed the other assigned readings for the week in advance. Review the facilitator's synthesis/summary and post your perspective and feedback, responding to questions or points posed, or specific directions (in cases of role-playing, etc.) given by the facilitator. Tie in personal experiences as an instructional designer as well as relevant points from the week's readings. All postings and activities relating to the case study must be completed by 11:59 pm on the Sunday night before the start of each new week. See the Course Schedule on page 5 for details and the deadlines posted throughout the Blackboard course's weekly links. Do not wait until the last day of the week to participate in the case study discussions, as this will impact your final course grade. Instead, pace your self over the course of the week while keeping in mind we will cover two cases during each of the scheduled weeks.

Design Document Materials and In-Progress Reviews (IPRs) (25%)

Students will apply the instructional design process and related techniques to an individual instructional/training problem. Students will progressively produce outputs from the design process, detailing their instructional design project, building towards a completed design document. These outputs (portions of your design document) are to be uploaded to the designated **IPR Team Discussion** area accessible from the **Discussions** link on the menu and other areas of the course. These outputs from each stage of the design process will be separate from the final Design Brief created using Powerpoint and your Prototype described later.

We will use role playing as a means for conducting regular reviews of your design materials (and the design brief and prototype). My role will be that of an organization's Program Manager for all training programs and contracts. Your role will be that of Project Manager of your individual instructional design project. Because our organization is large, each Project Manager will belong to a team of project managers that make up an interdisciplinary product team (IPT) and holds regular in-progress reviews for your individual projects. Therefore, it is the responsibility of each member on the team to make his or her project materials available for the scheduled reviews and to ensure you provide constructive feedback on your team members' work. Each team is expected to hold a minimum of 5 IPRs during the semester. (See the class schedule on page 5 of the syllabus for the required IPR dates.) The list of teams can be accessed from the course content menu once the course has started. Remember: You will use your IPR Team Discussion area to post your work and exchange team feedback.

IPR Format

You will begin building a design document for your ID project, starting with the needs and task analysis. During the weeks an IPR is scheduled, you will post the latest version of the design document containing the output(s) of the most recently covered instructional design phase. Each student will be expected to walk the review team through their design project to date, connecting their work to class learning and outside experiences related to instructional design. In addition to critiquing the work of your team, you, as peer reviewers will be expected to ask questions and prompt discussion of instructional design issues related to the individual projects. You can use tools (i.e., spreadsheets, databases, etc.,) to gather and track feedback ('red lines') you will need for making updates to your materials. Examples of the types of redlines you will collect include (but are not limited to) those that are technical, typographical and/or relating to instructional design issues. At the end of each IPR, each student is required to update and upload their latest/revised design document back to the IPR Team Discussion area in accordance with the schedule.

Prototype and Design Brief (50%)

Some design documents can end up being lengthy documents. Therefore, you will need to create a high-level design brief Powerpoint presentation to serve as an "<u>executive overview</u>" (approximately 10-12 slides) of your project to accompany your prototype. The executive overview must <u>summarize</u> the following elements:

- The instructional design problem
- Results from your Needs analysis
- Identified Instructional Goal
- Results from your Task analysis
- Results from your Learner & Contextual analysis
- Instructional objectives
- Description of the design approach for the learning environment, instructional strategies/activities and assessment strategies
- Flowchart of the instructional solution
- Summary of your Formative evaluation plan
- Summary of your Summative evaluation plan
- Scope of the Prototype (For example, indicate if the prototype represents a completed topic, lesson, module, course, storyboards, etc.)

The limited prototype of the design concept should:

- Be created using electronic media of choice (e.g. Powerpoint, Articulate, Camtasia, Captivate, Dreamweaver, RohoHelp, etc.); if the instructional solution is a print-based product, then use an application appropriate for the solution such as Word (or be saved in PDF format)
- Include sample assessment items
- Represent navigational layout of the program

• Communicate the essence of the design idea and convince a client you would be the right designer for this project

To view examples of previous student final projects, select the "Past Project Examples" link from the course menu.

LOGISTICS

**Required Portfolio Elements for IT students (EDIT601/EDIT701)

If you are a student in the IT program, it is strongly suggested that you retain your design brief/prototype elements produced in this course for your required online Masters electronic portfolio assessment process at the mid-point and end of your coursework (EDIT601/701). You may also want to document the feedback from your peers and indicate what elements of the design were adjusted based on collected formative feedback. You will be asked to reflect on your learning within this course and the best time to formulate those reflections is when you are currently in the course. Please retain these electronic materials for your required portfolio assessment.

COURSE SCHEDULE

The following is a summary of the topics and activities covered in the course. Please keep in mind that the activities and syllabus are subject to change based on my determination of needs of the class. You will be notified via email and Blackboard announcements if changes to the schedule become necessary.

Week	Topics / Activities / Assignments
Week 1	Course Kick-off and Administrative Items
1/21 – 1/25 (Martin Luther King day observed 1/19) No classes on 1/20	 Verify Blackboard (and email) access Review syllabus and course requirements Review previous EDIT 705 projects & begin thinking about your project topic Participate in Student/Instructor intros (using Blackboard discussion tool) Sign up for your selected case study or newsletter Topics: Introduction to Instructional Design, Thinking & Cognition Content we'll cover: Brown & Green, Chapters 1-3 Ertmer & Quinn, Case Study 15, hosted by instructor Ertmer & Quinn, Case Study 24 Read for next week: Brown & Green, Chapter 4 Ertmer & Quinn, Case Study 26 Ertmer & Quinn, Case Study 27
Week 2	Topic: Media, Production and Project Management
1/26 – 2/1	 Notify instructor of project topic Content we'll cover: Brown & Green, Chapter 4 Ertmer & Quinn, Case Study 26 (Discussion) Ertmer & Quinn, Case Study 27 (Discussion) Begin work on your production plan/calendar for your ID project
Week 3 2/2 – 2/8	 By <u>Tuesday</u>, 2/3, upload draft of production plan/calendar for your ID project Teams hold Kick-off meeting (Identify any forms to be used, standards, etc.; also, review each member's production plans/calendars) Gather, analyze feedback from production plan/calendar and other items covered at kick-off IPR; update materials as appropriate then post again no later than (NLT) 2/8 Read for next week: Brown & Green, Chapters 5-6 Ertmer & Quinn, Case Study 8 Ertmer & Quinn, Case Study 18

Week 4 2/9 – 2/15	Topic: Needs and Task Analyses Content we'll cover: Brown & Green, Chapters 5-6 Ertmer & Quinn, Case Study 8 (Discussion) Ertmer & Quinn, Case Study 18 (Discussion) Begin work on your design document which will start with your needs and task analyses
Week 5 2/16 – 2/22	 By <u>Tuesday, 2/17</u>, upload draft needs and task analyses Teams conduct Needs and Task Analyses IPR (Note: This IPR should include a review of your draft needs and task analyses) Gather, analyze feedback from needs and task analyses IPR; update as appropriate then post updated materials NLT 2/22 Read for next week: Brown & Green, Chapter 7 Ertmer & Quinn, Case Study 28 Ertmer & Quinn, Case Study 31
Week 6 2/23 – 3/1	Topics: Learner & Contextual Analyses Content we'll cover: Brown & Green, Chapter 7 Ertmer & Quinn, Case Study 28 (Discussion) Ertmer & Quinn, Case Study 31 (Discussion) Begin work on your learner & contextual analyses
Week 7 3/2 – 3/8	 By <u>Tuesday</u>, 3/3, upload learner & contextual analyses Teams conduct Learner & Contextual Analyses IPR (Note: This IPR should include a review of your draft learner & contextual analyses) Gather, analyze feedback from learner &contextual analyses IPR; update as appropriate post updated materials NLT 3/8 Read for next week: Brown & Green, Chapters 8-10 Ertmer & Quinn, Case Study 2 Ertmer & Quinn, Case Study 21
	SPRING BREAK 3/9 – 3/15
Week 8 3/16 – 3/22	Topics: Design and Development Content we'll cover: Brown & Green, Chapters 8-10 Ertmer & Quinn, Case Study 2 (Discussion) Ertmer & Quinn, Case Study 21 (Discussion) Begin work on your instructional goals & objectives, flowchart, description of learning environment, activities, strategies Read for next week: Ertmer & Quinn, Case Study 6 (Discussion) Ertmer & Quinn, Case Study 11 (Discussion)
Week 9 3/23 – 3/29	Topics: Design and Development (continued) Content we'll cover: Ertmer & Quinn, Case Study 6 (Discussion) Ertmer & Quinn, Case Study 11 (Discussion) Continue work on your instructional goals & objectives, flowchart, description of learning environment, activities, strategies

Week 10 3/30 – 4/5	 By <u>Tuesday</u>, 3/31, upload instructional goals & objectives, flowchart, description of learning environment, activities, strategies Teams conduct design & development IPR Gather, analyze feedback from the design & development IPR; update as appropriate then post updated materials NLT 4/5 Read for next week: Brown & Green, Chapters 11-12 Ertmer & Quinn, Case Study 14 Ertmer & Quinn, Case Study 32
Week 11 4/6 – 4/12	Topics: Assessment, Evaluation and Metrics Content we'll cover: Brown & Green, Chapters 11-12 Ertmer & Quinn, Case Study 14 (Discussion) Ertmer & Quinn, Case Study 32 (Discussion) Begin work on description of learner assessment approach/items; formative and summative evaluation plans. (Your formative evaluation plan can include but not be limited to a write-up of how you are collecting feedback during IPRs accompanied by samples of any forms you are using. Your summative evaluation should include an explanation of any long-term plans for metrics collection)
Week 12 4/13 – 4/19	 By <u>Tuesday</u>, <u>4/14</u>, upload description of learner assessment approach/items, summative evaluation plan, and formative evaluation plan. Teams conduct Assessment and Evaluation IPR (Note: This IPR should include a review of your draft learner assessment items, your draft formative and summative evaluation plans) Gather, analyze feedback from Assessment & Evaluation IPR; update as appropriate then post updated materials NLT <u>4/19</u>
Week 13 4/20 – 4/26	Begin developing your prototype.
Week 14 4/27 – 5/3	Begin development of your design brief.
Week 15 5/4 – 5/10	 By <u>Tuesday</u>, 5/5, upload prototype and design brief. Teams conduct final IPR for materials in preparation for the design showcase Gather, analyze feedback from final IPR; post updated materials By midnight on 5/10, upload final design brief and prototype to your Showcase Booth
Showcase and Course Wrap-up 5/11 – 5/13	 Monday, 5/11 – Wednesday, 5/13, Participate in the virtual designers showcase. To participate, all students must visit each blog of all exhibitors (your classmates) that were not part of your regular IPR team. Select 6 projects to return to and supply feedback using the showcase discussion forum for each respective exhibitor/brief. The <i>doors</i> to the designer's showcase close at midnight on 5/13. Therefore all visits and feedback must be finished no later than that date and time to avoid penalty. Be considerate of your classmates and be sure to begin your participation in the showcase at the beginning of the week. Wednesday, 5/13, Course Ends Closing remarks from instructor
	Course Evaluations

EVALUATION CRITERIA

The assessment of learning in this course will be based on a criterion model. The ID cases and design reviews will use a competency based model in that if there is clear evidence in online interactions that an individual has met the criteria, then he or she will gain full credit. For the design brief/prototype, each major phase of the instructional design prototype will be assessed as a potential client might evaluate a design concept in a realistic setting. The work and importance that an individual places on the first phase of the design greatly impacts the quality of the following two major phases. Therefore, it is highly suggested you place increased effort on the first phase (e.g. understanding the problem, audience, context) to ensure higher evaluations as you progress through the process.

Particular components of the design brief/prototype may be improved throughout the semester based on additional learning of the process through modeling of others' work and cycles of feedback by peers and the instructor. At the individual design review and conclusion of the semester, judgments will be made as to the level of persuasiveness of the design concept by other designers in the class. This input will be considered by the professor who will assign the mid-point and final grade.

Evaluation Rubrics

Criteria – Design Case Activities & Other Discussions; Newsletter content (worth up to 25 points)	No Evidence (0 pts)	Limited Evidence (3 pts)	Clear Evidence (5 pts)
Regularly and actively led/participated in discussions on scheduled dates and on time*			
Synthesis of case study or newsletter, uploaded/turned in on time			
Thorough understanding/analysis/synthesis of case study or newsletter content			
Connections made to experience/readings/theory/applied practice, etc.			
Attempts at creative format, engagement of audience and consideration of affordances of media when preparing case study activities or newsletter			

^{*}On dates you are not scheduled to lead a discussion, you are still expected to fully participate in the scheduled discussion led by fellow classmates or the instructor. This includes the first "student-instructor intro" discussion. This also means not waiting until the last day of a discussion to post your contributions.

Criteria – In-Progress Reviews (IPRs) (worth up to 25 points)	No Evidence (0 pts)	Limited Evidence (3 pts)	Clear Evidence (5 pts)
All design document/prototype/design brief materials uploaded on schedule			
Active participant in reviews of others' work, allowing enough time for teammate(s) to respond and update accordingly			
Content/feedback connected to experiences in/outside of class			
Respectful constructive feedback provided			
Posted updates on time from team feedback following each IPR			

Criteria – Design Brief & Prototype Presentation (worth up to 50 points)	Not Persuasive (0 pts)	Somewhat Persuasive (3 pts)	Very Persuasive (5 pts)
Phase 1 – Clear description of problem, audience and objectives	1	1	1
Description of instructional design problem			
Description of proposed intervention based on needs & task analysis data that has been collected, analyzed and documented			
Description of learner characteristics and how the environment relates to the problem			
Articulated instructional goals and objectives			
Phase2 – Description of logical design, approach, strategies and activities			
Articulated design approach and strategies for learning environment			
Articulated instructional activities and strategies			
Includes sample storyboards, flowcharts of prototype and/or clearly shows how product will be navigated			
Limited, professional-looking prototype depicting design idea and includes sample assessment			
Phase 3 – Collection and analysis of peer evaluation	1	1	1
Description of formative & summative evaluation strategies and tools			
Full, timely participation in final design showcase as host as well as visitor			

Grading
Using the following scale, the final grade is based on your performance out of the possible 100 points:

Grade	Points
A	90-100
В	80-89
Failure	0-79

Student Pointers from the Graduate School of Education

- 1. The IT program website is at: http://it.gse.gmu.edu/ Check this website periodically for course descriptions, program requirements, applications requirements, and other useful information.
- 2. Students may subscribe to the IT listserv. Instructions on how to subscribe can be found at: http://it.gse.gmu.edu/itlist.htm (or from the IT homepage, click on Resources and then on the IT listserv icon). The IT listserve keeps you informed about program announcements, special topics courses, job announcements, internships, etc.
- 3. Extended Studies students may transfer up to 12 credits to a graduate program. To transfer credits students must submit a formal graduate application. Check the IT website for information admission regarding requirements and procedures. On acceptance you should transfer your extended study courses into the graduate program by submitting the Transfer of Credit form at http://cehd.gmu.edu/assets/docs/forms/grad_transfer_credit_request.pdf
- 4. Students who will earn a graduate degree or certificate should submit an intent to graduate at the beginning of the semester in which they will fulfill their course requirements. Information about graduation processes can be found at: http://registrar.gmu.edu/gif/index.html
- 5. Students should direct advising questions to their advisor. Adjunct faculty are not responsible for advising students on programmatic issues.