

TECM 4800/5290: Design and Development of High Tech Training Materials  
University of North Texas  
Technical Communication  
Spring 2020

## Instructor and Course Information

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Time:	Monday Evenings 5:00- 7:50 p.m.
Place:	Auditorium 302
Instructor:	Dr. Chris Lam
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Email:	Christopher.lam@unt.edu
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## Course Description

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A graduate course focused on applying instructional systems design to develop technical training materials. Students will walk through the ISD process to create a technical training course for a variety of stakeholders.

### Learning Objectives

1. Create e-learning modules using systematic instructional design practices.
2. Understand how end users learn and cognitively process technical information.
3. Design engaging learning activities for a variety of stakeholders and audiences.
4. Learn instructional systems design (ISD) principles as they apply to transfer of knowledge for technical material.
5. Assess and Evaluate the efficacy of technical training.

## Major Projects

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**Note:** See course website for grading criteria and additional details.

### Project 1 (Individual Project): Needs Assessment Report - 10%

The first phase of Instructional Systems Design is the analysis phase. The primary purpose of this phase is to determine whether training will be 1) necessary and 2) effective. To do this, instructional designers can assess two major areas: 1) current employee performance and 2) overall need. You'll conduct a performance and needs assessment approved by the instructor. Then, you'll write a 3-5 page report outlining the results of the assessments and highlighting recommendations for training. In the assessment report, you'll include the following:

- 1) Learner Profile - A 1-page profile outlining the major demographic, attitudinal, and knowledge characteristics of your target learner.
- 2) Needs or Problem statement - A 1-page statement of the need for training that includes evidence from surveys, interviews, or observations.

3) Task analysis - A breakdown of the major tasks to be taught in the training course based on the needs and learner profile.

**Deliverables**

- 3-5 page assessment report that contains the following: 1) Learner profile; 2) Needs or problem statement and evidence supporting it; 3) Task analysis
- Field notes (including interview recordings, transcripts, and other primary research artifacts)

**Midterm Exam - 10%**

This exam will be an in-class exam consisting of both close-ended (multiple choice, T/F, fill-in-the-blank, etc.) and open-ended (short answer and essay). You will be given 1.5 hours to complete the exam. All material covered prior to March 6 may be covered on the exam including in-class lecture, discussion, and any readings assigned. The primary purpose of the exam is to measure your understanding of the instructional systems design process, content types, and learning activities.

**Project 2 (Team Project): Designing your e-Learning Course (complete design matrix that includes task analysis, learning objectives, learning activities, instructional strategies, and assessments) - 15%**

Designing is really the "meat" of instructional systems design. In the design phase, you and your team will decide on all of the key decisions in the course including learning objectives, learning activities (exactly what the learners will do to reach the objectives), instructional strategies, and assessments. Each of these elements provide an outline for your team as you go forth to actually create the course content in the next phase. Therefore, the design matrix must be detailed enough for you to be able to develop the course content.

**Deliverables**

- Task Analysis (1-3 pages) - A hierarchical breakdown of your learning tasks. This should look like an outline.
- Design Matrix document - A comprehensive matrix that outlines learning objectives, content type, learning activities, and assessments. In the last column, be sure to provide rationale for your learning activity choices including how the activity aligns with particular content types.

**Project 3 (Individual Project): Storyboard of e-Learning Training Module - 15%**

After you've designed your course, you'll create a visual storyboard for each screen of your training module. This is an individual project, but you should build upon the design matrix that you put together as a team. The idea is to have multiple storyboard options to choose from as you eventually develop your final e-learning modules.

**Project 4 (Individual Project): E-Learning Analysis - 10%**

Now that you've learned the entire e-learning process, you'll apply your knowledge in evaluating an existing e-learning course. Choose your e-learning course from one of the following on this site: <https://www.edx.org/>. If the course is meant to take a long time (e.g., 15-week semester), choose 1-3 modules or sections to analyze.

In a 3-5 page report, evaluate the following:

- 1) Is there a compelling need for this course and is online the best medium for the course? If so, explain why. If not, explain why.
- 2) Analyze the overall design of the course including learning objectives, learning activities, content types, and assessment strategies. Summarize your analysis and provide a critical evaluation of the course.
- 3) Analyze the overall development of the course including the types of learning activities and their adherence to Mayer's CTML. Summarize your analysis and provide critical evaluation.

Deliverables

- 3-5 page report

Grading Criteria

- Have you described the e-learning course accurately using the ISD vocabulary learned throughout the course?
- Have you provided an in-depth and critical evaluation of the need for the course?
- Have you provided an in-depth and critical evaluation of the design of the course?
- Have you provided an in-depth and critical evaluation of the development and content components of the course?

### **Project 5 (Team Project): Finished e-Learning Course - 20%**

The final project for this course will be a fully developed e-learning course. You will use the deliverables from the previous phases of ISD to inform your final e-learning course. You'll use Adobe Captivate software to create the course. You'll also complete a 2-3 page ISD evaluation report that answers the following:

- 1) How closely does your course align with your original course design matrix? Do you think your course actually teaches the intended learning outcomes?
- 2) After producing your course, is there a clear need for this course? Does your course (as it's been developed) meet your intended audience's needs?
- 3) How closely does your course adhere to the development and design principles of CTML? Provide examples.
- 4) What constraints did you encounter as you used Adobe Captivate? What were ways to address or overcome these constraints?

**Deliverables**

- Final course delivered on Adobe Captivate software (Export course and upload).
- ISD Evaluation report - Report outlining the overall effectiveness of your course and outlines potential changes to the course

**Grading Criteria**

- Does your course closely align with your design matrix and development storyboards?
- Does it adhere to the CTML principles for ISD design?
- Are all ISD components interconnected (e.g., learning outcomes > learning activities > assessments)?
- Have you exhibited competency in developing courses in Adobe Captivate?
- Does the overall quality of the course reflect the standards and principles we've learned throughout the semester? (Clear learning outcomes, engaging learning activities, effective learning assessments, etc.)

## Grading Policy

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The grading criteria serve as general guidelines for all course assignments.

A (90-100%): A manager would be very impressed and would remember the work when a promotion is discussed. In this course, this means your code is well formed, fully validated, and well written. For written assignments, this means work that is a pleasure to read, with excellent content, grammar, sentence structure, mechanics, and visual design. In addition, work is thorough, complete, coherent, well organized, supported sufficiently, and demonstrates a superior understanding of audience, purpose, and rationale.

B (80-89%): A manager would be satisfied with the job, but not especially impressed. This means that papers (and code) are well written and well produced, and demonstrate a substantial addition to the learning process. Work is sufficiently developed, organized, and supported, and demonstrates a solid understanding of audience, purpose, and rationale.

C (70-79%): A manager would be disappointed and ask you to revise or rewrite sections before allowing clients and others to see the work. This means code is only partially correct. For written assignments, the paper may have clear, but underdeveloped ideas, or the paper might not engage or affect the reader. The paper may contain some errors in grammar, mechanics, or logic.

D (60-69%): A manager would be troubled by the poor quality of work. Code is almost entirely incorrect and demonstrates a clear misunderstanding of the underlying concepts of the markup or programming language. This level of work forces the reader to work too hard to understand the main ideas. The paper may contain incomplete information, have serious grammar and mechanical problems, lack clear organization, or be conceptually unclear.

F (0-59%): A manager would start looking for someone to replace you. In particular, work fails to address the tasks of the assignment, is so underdeveloped as to demonstrate incompetence, and is mechanically and grammatically incomprehensible. This grade will also be assigned for any evidence of plagiarism.

## Attendance and Tardiness

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Attendance in this course is NOT optional. You are expected to attend every class period. Each unexcused absence will result in the deduction of 10% off of your final grade. This includes not showing up for scheduled Google Hangouts. You will automatically be DROPPED from the course if you've missed 4 classes.

I understand that unforeseen circumstances often happen and you will be allowed 1 unexcused absence as long as you email me at least 3 hours prior to the course meeting time.

Excused absences are allowed but MUST be backed up written documentation, including sickness. Absences cannot be excused without proper documentation.

If you are more than 15 minutes late, you will not be allowed to sign the attendance sheet and will be counted as absent.

### Late Work

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Late work is accepted for homework, quizzes, or any other non-major assignment with 10% deduction for each day it is late. In-class work cannot be made up.

### Major Projects

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All major projects will be submitted online as agreed upon on the first day of class. For late work, you will lose one letter grade (or 10%) per calendar day late for major assignments. If extenuating circumstances apply, your work will be due the day after your return from your athletic event or the day after you attend the emergency appointment or funeral.

You may not use program templates (e.g., Word templates) to format any of your documents – these don't encourage you to learn the programs and generally result in dull, unpersuasive documents. Additionally, you may use existing code from tutorial sites like W3Schools. However, you must be able to explain how or why the code is functioning to receive full credit on an assignment.

### Technology Requirement

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All students must have a valid UNT email address. I will use MyUNT to send mass emails to the class. I often use email to send class emails, including quizzes, notices, updates, and advisories. It is your responsibility to check email regularly. Not receiving an email is not a valid excuse for late or missing work. You will also need your UNT email address to check your grade throughout the semester.

In addition, this is a tech-heavy class. You must have access to a computer (come to the lab if you don't own one) for 10+ hours per week outside of class. Access is not a valid excuse.

### Classroom Behavior

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You MUST participate in class. This means that you must come to class prepared by completing all readings and assignments prior to coming to class. While I understand that people get busy during a semester, a regular pattern of being unprepared will result in a failing grade for the course.

This course takes place in a computer lab. However, when I am lecturing, your computer monitor should not be on. Further, no cell phone usage will be permitted during class. Students who choose to check email and surf the Internet will be asked to leave class and will receive an absent grade for the day.

## ADA

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In accordance with the Americans with Disabilities Act and Section 504, Rehabilitation Act, I will work with the Office of Disability Accommodation to help reasonably qualified students with disabilities. If you have such a disability, please advise me in writing of your needs no later than the second week of class.

## Religious Holidays

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In accordance with State law, students absent due to the observance of a religious holiday may take examinations or complete assignments scheduled for the day missed within a reasonable time after the absence. Travel time required for religious observances shall also be excused. Please see the UNT Student Handbook for information on which holidays or holy days are covered by this policy. State law also requires that students notify their teachers at the beginning of the semester if they expect to miss class on a religious holiday during the semester but want to make up the work missed. Students will be allowed to make up the work provided they have informed their teachers in writing within the first 15 days of the semester. Once again, all assignments and scheduled work must be turned in before the date of the excused absence. University policy requires that students provide their teachers with an official notification card issued by the university if they want to make up any in-class work they missed while they were involved in a university authorized activity.

## Academic Honesty and Integrity

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Because of the nature of this course, using existing code is permitted. However, you MUST be able to explain how the code works and why you chose to use the code. If you use adapted code in a major project, you must explicitly let me know in writing where the code came from.

It is your responsibility to become familiar with UNT's Policy of Academic Dishonesty.

This policy defines the following forms of academic dishonesty:

- Cheating intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.
- Plagiarism the deliberate adoption or reproduction of ideas, words, or statements of another person as one's own without acknowledgement.
- Fabrication intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- Facilitating academic dishonesty intentionally or knowingly helping or attempting to help another to violate a provision of the institutional code of academic integrity. If any course material is submitted that violates this policy of academic dishonesty, the assignment will receive a grade of F and appropriate judicial action will be filed. This action includes a report of academic misconduct to your college Dean and possible dismissal from The University of North Texas. There are no first-offense warnings regarding plagiarism.

As this is a graduate course it is expected that plagiarism and the correct use (citation) of other's ideas (including print, digital, images and other media) are fully understood. Contact me if you're ever confused about what constitutes academic dishonesty. Misunderstandings, miscommunication, oversights, or lack of comprehension as to what constitutes plagiarism.

