

# **TECM 4400: Advanced Information Design (UX and front-end development)**

University of North Texas  
Technical Communication  
Spring 2020

## **Instructor and Course Information**

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Time:	Monday/Wednesday 3:30- 4:50 p.m.
Place:	Auditorium 313
Instructor:	Dr. Chris Lam
Office:	Auditorium 316
Email:	Christopher.lam@unt.edu
Website:	Unt.instructure.com

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## **Course Description**

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In this class you will learn how to design, develop, and write information for electronic media. This includes designing and developing for mobile and desktop interfaces.

By the end of this course you should be able to

- Design and develop web applications that solves a tangible problem for a specific user group using a UX process
- Conduct UX research and construct actionable profiles based on your research.
- Build web applications using Ruby on Rails and understand how the model-view-controller framework functions
- Work effectively in teams and use GitHub to manage your application
- Test the functionality of your application using formal and informal testing methodologies.

## **Course Materials**

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- [Required] Think like a UX Researcher – David Travis
- [Required] Interviewing Users, Steve Portigal
- [Free] Lynda.com Subscription (Free with UNT login)
- [Required] [Learn Ruby on Rails \(Free Online\)](#)

## Course Assignments

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**Note:** See detailed descriptions with grading criteria and on the course website.

### **Project 1 (Whole Team) - Lightning Round Presentation**

The primary purpose of this project is for your team to pitch your IDEA. This idea should be based on primary research that you have already conducted of your target audience and secondary research of the problem/context. The presentation should use the problem/solution organizational structure of an idea pitch.

You'll pitch your app idea to a panel of investors in a lightning round presentation (5 minutes maximum). The investors will decide whether your app idea is worth investing in, which will be reflected in your grade for this project. If your idea is not worth investing, you'll have to revise and re-pitch a new idea exactly 1 week after the due date for this project.

### **Project 2a (Whole Team): Empathy Maps and User Personas**

The purpose of this project is for your entire team to begin working through the first phases of UX process deliverables. You will complete at least 2 empathy maps and 2 user personas for two audience segments (total of 4 deliverables). You'll clearly define your audience segments and then conduct user research (surveys, interviews, focus groups, secondary research) to create your empathy maps and user personas. See attached documents for examples of a well-constructed empathy map and a well-constructed user persona.

### **Individual Project - Build an App using Video Tutorial**

This is the only major individual project of the semester and really relies on self-learning. You'll follow the some basic video tutorials to create a simple todo list app. Walking through this exercise will allow you to understand how the Rails framework works and how to manage a development project using Git and Heroku. Once you've created the app following the tutorial, you'll have 2 options:

#### **Front-End Designer's Track**

If you take the front-end designer's track, you'll complete update the user interface using bootstrap CSS. The app must be mobile friendly.

#### **Back-end Development Track**

For the development track, you'll have to add new, significant functionality to the app. This could include things like user management (see Devise gem for help), categorization of todo items, or something completely different. You'll use internet research (and help from me) to develop the app.

### **Project 2b (Whole Team)- UX Process Deliverables (User stories and journey maps)**

Once you've passed the lightning round, you'll continue UX research to create 2 common UX deliverables: user stories and journey maps. You'll utilize both qualitative and quantitative methods to produce these two deliverables. This is a project that will require collaboration among all 3 components of your team (development, front-end design, and content/marketing).

### **Project 3a (Developers): Database Map**

This project is for the developer(s) on the team. You'll create a database map depicting associated models. Each model should have the specific variables and datatypes associated with them. This database map will be created based on the functionality necessary as described in your team's user stories.

### **Project 3a (Content/Marketing): Front page content and landscape analysis**

This project is for the content/marketing person(s) on the team. You'll come up with the general content and

story for your app's front page. You'll also conduct a landscape analysis in which you'll analyze front-pages of competitors. You'll use your analysis to direct your front page content. Make sure to connect your deliverables to the personas and user stories.

### **Project 3a (Front-end designers)- User Flow and MVP – 7.5%**

This project is for the front-end/UI designer(s) on the team. Using the personas and user stories, you'll create a set of wireframes that depict how a user interacts with the App. Using the wireframes, you'll create a minimum viable product that is testable. This can be lo-fi (hand drawn or computer-generated) or hi-fi (using an app like mockflow.com).

#### Deliverables

- User flow - A series of lo-fi or hi-fi wireframes that take a user through the typical flow of your web application. This will be directly based on your team's user stories and journey map.
- MVP - Built on your user flow, you'll create interactivity to test the actual user flow. For instance, teams in the past have used simple tools like powerpoint to fake user interactivity or more sophisticated tools like Azure or MOckFLoW to build an actual prototype.

### **Project 3b (Developers) - Version 1.0 of Web Application live and hosted on Heroku**

At this point in the semester, you'll have something up and running on a production server. The point of this project is to simply ensure you are being an engaged team member and staying on track with the project as a whole.

### **Project 3b (Front-end Designers) : Full-Blown Design Mock-Ups**

Since the last big project, the design team has a clear idea of what exact screens need to be designed. For this project, you'll create full design mock-ups (HTML/CSS or in Photoshop) of each unique screen. This includes the landing/marketing page for the web application.

### **Project 3b (Content/Marketing) - Drafts of all educational, marketing, and functional content and Press Release for Version 1.**

Now that your team has a validated idea and research how your users interact with the application, you can begin to think through the content of the website. As content and marketing specialists, you'll not only write the copy for the application itself, you'll also need to begin writing and considering other types of content: educational and marketing content.

Additionally, you'll be asked to write a new genre: the press release. You'll write a press release announcing the first version of your application based specifically on the user personas and other process deliverables you've created in the research phases of the project.

### **Project 4 (Whole Team) - Evaluative Research (Informal and formal usability tests)**

You'll be asked to evaluate the usability of your application and then iterate based on your evaluative research. You will conduct 3 informal usability tests and 1 formal usability test. After each test, you must write a usability memo that includes: 1) Objectives of the research; 2) Summary of the scenarios; 3) Research findings (both qualitative and quantitative); 4) List of specific changes to the application based on the research.

Test 1 (Guerrilla in the Union) - You will test the content of your marketing materials (landing page) and an initial user flow of your MVP.

Test 2 (Guerrilla in the Union) - You will develop at least 3 unique scenarios and test the usability of your application.

Test 3 (Guerrilla in the Union) - You will develop at least 3 new scenarios and test your application.

Test 4 (Formal Usability in Lab 302) - You will develop a full-blown, scenario-based usability study and test in the

usability lab (Aud 302).

### **Project 5 - Final Web Application**

In the end, you'll have to deliver a final web application that is fully functional. The site must be more than an informational site (i.e., it must require some user interaction and allow a user to do something beyond read).

### **Remaining grades - Homework and Other Assignments**

In addition to the major assignments, you will complete a series of short homework assignments and in-class activities as well as announced and unannounced quizzes on the course's content. These assignments are often given as part of your class participation and attendance.

### **Course Schedule**

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For an up-to-date schedule of course activities, please visit the course website.

### **Grading**

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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, that 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 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. In other words, 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. 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 5% off of your final grade. You will automatically be DROPPED from the course if you've missed 5 classes.

I understand that unforeseen circumstances often happen and you will be allowed 2 unexcused absences 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. No exceptions.

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

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## **LATE WORK**

Late work is accepted for homework, quizzes, or any other non-major assignment. In-class work cannot be made up. Each day an assignment is turned in will result in a 10% deduction from the assignment grade.

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## **MAJOR ASSIGNMENTS**

If you are absent the day an assignment is due, I will not accept any work via email. You must make arrangements with me to submit work before the deadline or put your work in my department mailbox, located on the third floor of the Auditorium building. 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.

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## **EMAIL AND TECHNOLOGY REQUIREMENT**

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.

The course will held in a BYOD (bring your own device classroom). All students will need access to a personal computer with administrator access in order to succeed in this course. If you do not own a computer or do not have access to one, the UNT Tech Comm lab has laptops for rental that have the proper software installed. Therefore, a lack of technology cannot be used as an excuse for late or missing work.

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## **CLASSROOM BEHAVIOR**

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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Copying open source and available HTML or CSS code is permitted in this course. However, if more than 30% of your site is copied from template code, you must be able to provide a written and/or oral defense of your decision. You must also be able to clearly articulate how every line of code that you copied is functioning.

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.
- 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 academic dishonesty is not accepted.