

Information Systems Analysis and Design INLS 382_001, Fall 2009

Class Time: Tuesday and Thursday, 12:30 - 1:45 pm
Class Location: 304 Manning Hall

Instructor: Laura Christopherson
Email: llchrist at email dot unc dot edu
Office hours: Tuesday and Thursday, 2:00 - 2:55pm, by appointment.

Course Description

This course introduces the basic concepts underlying systems analysis with a user-centered design perspective. Modeling and other systems analysis techniques are discussed and practiced.

Course Objectives

1. Develop an understanding of the role of information systems in modern organizations.
2. Become familiar with a variety of information systems analysis and problem-solving tools and approaches.
3. Gain practical experience with information systems analysis and design through class exercises and homework practice.

Course Materials

Hoffer, J.A., George, J.F., & Valacich, J.S. (2007). *Modern Systems Analysis and Design*, 5th edition. New Jersey: Pearson/Prentice Hall.

Additional readings are listed on the schedule.

Class Policies

Attendance and Participation

- I will always be prepared for class and will start class on time. If unforeseeable circumstances prevent this for any reason, I will try to notify you beforehand.
- I expect the same of you. Be prepared for class, be ready to start class on time, and let me know if you won't be there. You must attend every class. Class attendance is a part of your final grade.
 - If you know in advance that you must miss a class, let me know in advance (up until 24 hours before the class session).
 - If you miss a class session, unexpectedly, get in contact with me ASAP.
- Being prepared for class includes doing the reading assignments before class starts so that you can ask questions and participate in class discussions and exercises. You are responsible for understanding the content of all the readings, even if we don't discuss them in class.
- You must participate in class discussions and exercises. Learning from each other is especially important for an application-oriented course. Extensive participation in class discussion and exercises will be an essential element of your learning success on the subject of systems analysis. Active involvement in learning increases what is remembered, how well it is assimilated, and how the learning is used in new situations. Class participation will be graded as part of your final grade.
- If there is something you don't understand ask a question! If you don't want to ask during class, post it to the class list, make an appointment with me, or contact me by email.
- Laptops, PDAs, and similar devices should be used only for class purposes. Unrelated activities such as reading email, IMing, tweeting, surfing the web, or playing games are distracting and discourteous. Use of electronic devices for purposes other than class will count against your participation grade.

- Participation counts for a percentage of your final grade, but there are many ways to participate. Quality of contributions is more important than sheer quantity.

Assignments

- Assignments must be submitted by 11:30 am on the day they are due.
- In fairness to students who turn in assignments on time, a late assignment will be penalized 5% for every day it is late.
- No assignment submitted more than one week after the due date will be accepted.
- These penalties will not apply to students who know in advance that they will be submitting an assignment late and let me know in advance. "In advance" means up until 72 hours before the class session in which the assignment is due.
- Start working on assignments well in advance of the due date. It is usually a good idea to give yourself time to let your work sit for a bit, then come back to review it. I take a dim view of questions that show you are starting an assignment only 24 hours before it is due. Besides, what if I were unavailable for consultation?
- All assignments should conform to the Submission Instructions outlined on the Assignments page.
- Pay attention to detail! Proofreading and clarity of presentation are important for information professionals.
- For assignments containing models, I provide some additional Guidelines.

Giving and receiving help

The Honor Code applies in this class. It prohibits giving or receiving unauthorized aid in the completion of assignments. The Instrument of Student Judicial Governance gives examples of actions that constitute academic dishonesty. There are some specific guidelines for this class:

- You may give and receive assistance regarding the use of hardware and software.
- I encourage you to discuss issues raised in class or by the readings with each other. You may also ask your classmates for clarification of class notes.
- Individual home work assignments are to be done individually. You may consult the course readings, your notes, and even other print or web sources. (Keep in mind, however, that what you find in other sources may not be consistent with what I want you to do.) You may not consult your classmates or other people. All questions should be addressed to me.

Electronic devices in class

- You do not need to bring your laptop to every class. For the couple of classes for which you do need your laptop, I will remind you in advance.
- If you plan to use your laptop to take notes, be aware that I often sketch diagrams on the board. You may want to bring paper and a writing utensil so you can copy them quickly.
- Laptops, PDAs, and similar devices should be used only for class purposes. Unrelated activities such as reading email, IMing, surfing the web, or playing games are distracting and discourteous. Use of electronic devices for purposes other than class will count against your participation grade.
- Please remember to turn off your cellphone before class starts.

Grading scale

The purpose of grades is to identify degrees of mastery of subject matter. Here is how I will relate grades to mastery:

A - Mastery of course content at the highest level of attainment that can reasonably be expected of students.

B - Strong performance demonstrating a high level of attainment for a student.

C - A totally acceptable performance demonstrating an adequate level of attainment for a student.

D - A marginal performance in the required exercises demonstrating a minimal passing level of attainment for a student.

F - For whatever reasons, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content.

Semester grades will be computed as follows:

A = 94-100

A- = 90-93

B+ = 87-89

B = 84-86

B- = 80-83

C+ = 77-79

C = 74-76

C- = 70-73

D+ = 67-69

D = 60-66

F = anything below 59

Class List

Please subscribe to the class list. Go to the UNC Mailing Lists website. Select "search for lists" in the User Tools box. Enter the list name, inls382_001, in the search box. Click on the "subscribe" button, and complete the form.

I will send out a test message or two the first week of class. I will use the list to send out announcements. You can use the list to ask questions of the class in general, to share helpful hints about software, etc. To post to the list, you can send email to inls382_001@listerv.unc.edu, or go to the list's webpage.

Schedule

Tuesday, 8/25/09: Introductions and business

Thursday, 8/27/09: Defining Systems Analysis, Information System, and the Software Development Life Cycle

Reading:

Modell, M E. (c1996). A professional's guide to systems analysis. New York: McGraw-Hill.

- Read pp. 9-10.

Chapter 1: The Systems Development Environment

- Read pp. 3-7 (stop at *Types of Information Systems and System Development*)
- Read pp. 9-28 (start at *Developing Information Systems and the Systems Development Life Cycle* and continue to the end of the chapter)

Tuesday, 9/1/09: Types of Software

Thursday, 9/3/09: Project Management

Reading:

Chapter 1: The Systems Development Environment

- Read pp. 7-9 (start at *Types of Information*

Reading:

Chapter 3: Managing the Information Systems Project

- Read pp. 47 - 74 (stop at *Using Project*

Systems and Systems Development and stop at *Developing Information Systems and The Systems Development Life Cycle*)

Chapter 2: The Origins of Software

- Read the entire chapter from pp. 31-45

Tuesday, 9/8/09: Project Management cont.

Reading:

Chapter 5: Initiating and Planning Systems Development Projects

- Read pp. 130-141, 144-152, and 157-160.
- Skim the *The Time Value of Money* section from pp. 141-144.
- Skim the *Reviewing the Baseline Project Plan* section from pp. 152-157.

Tuesday, 9/15/09: Information Gathering

Reading:

Chapter 6: Determining System Requirements

- Read the entire chapter from pp. 170-200

Tuesday, 9/22/09: Introduction to Modeling and Rich Pictures

Reading:

Monk, A. & Howard, S. (1998). The rich picture: a tool for reasoning about work context. interactions, 5(2), 21-30.

Tuesday, 9/29/09: Data Flow Diagrams

Reading:

Chapter 7: Structuring System Process Requirements

- Read the entire chapter from pp. 206-233

Tuesday, 10/6/09: Data Flow Diagrams cont.

Management Software) and 78.

- You may choose to skim the *Using Project Management Software* section on pp. 74 - 77 if you are interested in learning more about PM software. If you are interested in PM software, you can try Microsoft Project in the lab downstairs; or Entourage on the Mac offers a way into Project. There is also OmniPlan (<http://www.omnigroup.com/applications/omniplan/>).

Thursday, 9/10/0: Project Management cont.

Reading:

We're continuing with the readings from 9/3 and 9/8.

Thursday, 9/17/09: Information Gathering cont.

Reading:

We're continuing with the reading from 9/15.

Thursday, 9/24/09: Artifact Model

Reading:

Beyer, H. & Holtzblatt, K. (1998). *Contextual Design: Defining Customer-Centered Systems*. San Francisco, CA: Morgan Kaufmann Publishers.

- Read pp. 102 - 107 (stop at *The Cultural Model*)

Homework:

Artifact model. Due 10/8/09.

Thursday, 10/1/09: Data Flow Diagrams cont.

Reading:

We're continuing with the reading from 9/29.

Exam Review Questions assigned. Due 10/13/09.

Thursday 10/8/09: Website Models

Reading:

We're continuing with the reading from 9/29.

Homework:

Data flow diagrams. Due 10/27/09.

Tuesday, 10/13/09: Website Models cont.

Exam Review Questions due.

Reading:

We're continuing with the reading from 10/8.

Tuesday, 10/20/09: Midterm Exam**Tuesday, 10/27/09: Structured English and Decision Tables**

Data flow diagrams homework due.

Reading:

Chapter 8: Structuring System Logic Requirements

- Read the entire chapter from pp. 252-265

Homework:

Structured English. Due 11/5/09.

Tuesday, 11/3/09: Entity Relationship Diagrams cont.**Reading:**

We're continuing with the reading from 10/29.

Artifact model homework due.

Reading:

Rosenfeld, L. & Morville, P. (2002). Information Architecture for the World Wide Web. O'Reilly.

- Section 12.1 – 12.4, *Design and Documentation*

Thursday, 10/15/09: Midterm Exam Review**Thursday, 10/22/09: FALL BREAK – NO CLASS****Thursday, 10/29/09: Entity Relationship Diagrams****Reading:**

Chapter 9: Structuring System Data Requirements readings:

- Read the entire chapter from pp. 283-315

Thursday, 11/5/09: Data Dictionaries and Prototyping

Structured English homework due.

Reading:

Preece, J., Rogers, Y., & Sharp, H. (2002). *Interaction design : Beyond human-computer interaction*. New York: John Wiley & Sons.

- Read pp. 240 – 249 (stop before *Conceptual Design: Moving From Requirements to First Design*)
- Read pp. 262 - 264 (stop before *Physical Design: Getting Concrete*)

Chapter 6: Determining System Requirements readings:

- Review pp. 189 – 190: *Using Prototyping During Requirements Determination*

Tuesday, 11/10/09: Integrating and Finalizing Models into Design Specifications

Reading:

Chapter 13: Finalizing Design Specification

- Read pp. 455 – 466 (stop at *Prototyping*) and 467 – 474 (start at *Rapid Application Development*)

Tuesday, 11/17/09: System Architecture (Terrell Russell)

Reading:

Chapter 14: Designing Distributed and Internet Systems

- Read pp. 478 – 494 (stop at *Other Site Consistency Issues*) and 496 – 510.

Chapter 13: Finalizing Design Specification

- Read pp. 466 – 467: *Prototyping, Evolutionary Prototyping, Throwaway Prototyping*

Homework:

Entity relationship diagram. Due 11/24/09.

Thursday, 11/12/09: Design Principles and Best Practices

Reading:

Te'eni, D., Carey, J. M., & Zhang, P. (c2007). Human computer interaction : Developing effective organizational information systems. Hoboken, N.J.: John Wiley & Sons Inc.

- Read *Design Principles and Guidelines* on pp. 193 - 221.

Chapter 14 Designing Distributed and Internet System readings:

- Read pp. 494 – 496 (start at *Other Site Consistency Issues* and stop before *Design Issues Related to Site Management*)

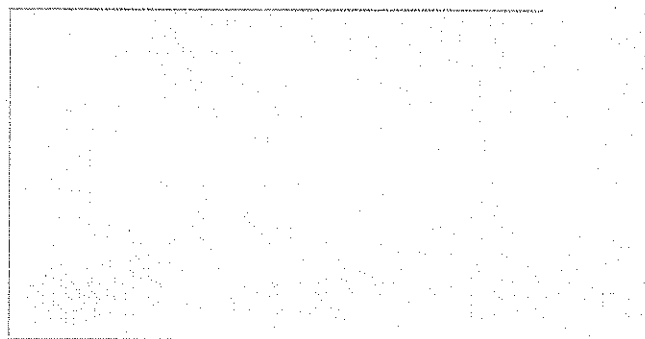
Chapter 11 Designing Forms and Reports readings:

- Look at the definitions for form and report in the margins on p. 390.
- Look at these tables on their respective pages:
 - 11-2 on p. 391
 - 11-3 on p. 395
 - 11-4 on p. 397
 - 11-5 on p. 399
 - 11-7 on p. 401
- Read pp. 397 – 399, the section on *Highlighting and Color Versus No Color*
- Read from p. 405, *Assessing Usability*, to the end of the chapter on p. 410.

Thursday, 11/19/09: Handicap Accessibility (Jason Morningstar, Marc Medwin)

Reading:

- Section 508: 508 Law
<http://www.section508.gov/index.cfm?FuseAction=Content&ID=3>
- Section 508: Summary of Section 508 Standards
<http://www.section508.gov/index.cfm?FuseAction=Content&ID=11>
- W3C: Web Accessibility Initiative: Introduction



- to Web Accessibility
<http://www.w3.org/WAI/intro/accessibility.php>
 P
- W3C: List of Checkpoint for Web Content Accessibility Guidelines 1.0
<http://www.w3.org/TR/WCAG10/checkpoint-list.html>
 - Skim W3C: Web Content Accessibility Guidelines 1.0
<http://www.w3.org/TR/WAI-WEBCONTENT/>

Tuesday, 11/24/09: System Implementation

Entity relationship diagram homework due.

Reading:

Chapter 15: System Implementation

- Skim pp. 520-522 up to the section on *Deliverables and Outcomes from Coding, Testing, and Installation.*
- Read pp. 522-532 starting with the section *Deliverables and Outcomes from Coding, Testing, and Installation* and stopping before the section on *Installation*
- Skim pp. 532-536 starting with the section on *Installation* and stopping before the section on *Documenting the System*
- Read pp. 536-553 starting with the section on *Documenting the System* and finishing the chapter.

Exam Review Questions assigned. Due 12/3/09.

Tuesday, 12/1/09: Security (Kevin Lanning)

Tuesday, 12/8/09: FINAL EXAM REVIEW

According to the Registrar's schedule, our final exam will be 12/18/09 at 12:00pm.

Thursday, 11/26/09: THANKSGIVING – NO CLASS

Thursday, 12/3/09: RENCI Field Trip

Exam Review Questions due.