

ISDS 4125

Analysis & Design of Information Systems

Louisiana State University – Baton Rouge

Fall 2002

Section 3: TTh 10:40-12:00pm CEBA 2169

Section 4: TTh 12:10-1:30pm CEBA 2169

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Textbooks:

Modern Systems Analysis and Design, by Jeffrey A. Hoffer, Joey F. George, and Joseph S. Valacich (2002, 3rd Edition).

Additional supplemental readings will be posted to the course web site listed above

Prerequisites:

ISDS 3110 (Database Processing for Management)

ISDS 3200 (Advanced Business Programming)

Course Description and Overall Objectives:

Systems Analysis & Design involves understanding an organization's information-processing requirements so you can successfully satisfy those requirements using information technology. While anyone can endeavor to perform these two activities, this course will give you the knowledge and skills needed to perform them at a *professional* level.

To help you build the knowledge base needed as a professional systems developer, you will be expected to keep up with assigned textbook readings, participate in discussion, exercises, and lectures in class, and most importantly ask questions.

The “hands-on” portion of the course—in-class exercises and a comprehensive systems development project—will help train you in the basic skills required as a systems developer. You will be encouraged to develop creative solutions to information systems problems while remaining sensitive to the individual, organizational, and technical factors that can constrain your work.

Service-Learning

ISDS 4125 is a Service-Learning course. Service-Learning is defined as:

...a course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility (from Bringle & Hatcher, 1995)

This semester the service activity will involve working with Habitat for Humanity of Greater Baton Rouge to develop an information system to support the organization's work. For more information about Habitat, see the organization's web site at www.hfhbtr.org.

Specific Course Objectives:

There are four specific learning objectives for this course. At the end of the semester, you should...

1. Understand the philosophy, structure, and activities of the Systems Development Life Cycle (SDLC).
2. Understand and be able to use various analysis and design tools, including Entity-Relationship Diagrams, Data Flow Diagrams, Logic models, and Requirements Trace Matrixes.
3. Be able to work effectively on a team.
4. Understand the social, civic, and professional responsibilities associated with working as an IS professional.

We will work toward these objectives through in-class lectures, exercises, and discussions; individual work out of class; and work on the service project for Habitat. The following table outlines how these activities are tied to each objective.

Objective	In Class	Out of Class	Service Project
SDLC	Lecture Discussion Examples & exercises	Assigned readings Homework Reflection	Use SDLC as framework for project
Tools	Discussion Examples & exercises	Assigned readings Homework Reflection	Apply tools to project within appropriate SDLC stage
Teamwork		Group exercises	Work on a team for project
Professionalism	Lecture Discussion Group exercises	Assigned readings Homework Reflection	Practice professional responsibilities

General Course Policies:

Any suspected case of Academic Misconduct will result in immediate notification of the appropriate University administrator. I encourage you to review the Code of Student Conduct, which can be found at the Dean of Student’s web page (<http://students.lsu.edu/dos/>).

You will be expected to check your email at least daily. I will use your PAWS account. If you prefer another email account, you are responsible for configuring your PAWS email to be forwarded to that other account.

Grading System:

Your final grade in the course will be based on the weighted average of six grades. These six grades are assigned for:

Graded Work	Weight in Final Grade
1. First exam	15%
2. Second exam	15%
3. Homework assignments	10%
4. Reflection	20%
5. Service Project: Workbook (adjusted based on Team/Self Evaluation)	20%
6. Service Project: System (adjusted based on Team/Self Evaluation)	20%

The Grade Calculation Worksheet on the last page of this syllabus shows how these six grades will be aggregated into a single average grade at the end of the semester. This average grade will in turn be translated into your final course grade as follows:

If your average is between...	your final course grade is...
3.50 and 4.00	A
3.00 and 3.49	B
2.50 and 2.99	C
1.50 and 2.49	D
0.00 and 1.49	F

Examinations:

One of the examinations will be objective, multiple choice format. It will include questions that address your ability to recognize, recall, understand, and apply the systems development concepts from the course. **Everything that we discuss in class, and everything from the textbook and assigned readings, should be considered testable.** No late or early exams will be offered.

The format of the other exam will be determined during the semester. It will either be multiple-choice, or it will ask you to perform some analysis activities based on a story, such as develop process and data models. We will decide which format is most appropriate based on your progress in class.

Homework assignments:

The homework assignments are intended to give you the opportunity to think in more depth about the concepts discussed in class and in the text. They should be completed individually, so **please do not collaborate with your classmates in any way on the homework assignments.**

Most of the homework assignments are drawn from the "Problems and Exercises" section at the back of each chapter. Each homework is graded on a "credit/no credit" basis. To earn credit you must simply demonstrate that you made an honest effort to complete the assignment, so even if it is not technically correct you can still earn full credit.

The due date for each chapter's homework is listed on the Course Schedule. They are due by **9:00 am** on the due date.

Submission instructions are listed at the end of the syllabus, and in the Classnotes section of the course web site (<http://projects.bus.lsu.edu/classes/fall02/isds4125>).

Late submissions will only be allowed if you notify me IN ADVANCE of the due date of any conflicts, such as illness, job interviews, or family emergencies. You may notify me via email or voice mail. There are 12 assigned homework exercises. To earn full credit for Homeworks, you must complete 10, so you are free to skip any two homeworks.

Reflection

As the definition of Service-Learning states, reflection is a necessary component of a Service-Learning experience:

Reflection is the "intentional consideration of an experience in light of particular learning objectives." The presumption is that community service does not necessarily, in and of itself, produce learning. Reflection activities provide the bridge between the community service activities and the educational content of the course. Reflection activities direct the student's attention to new interpretations of events and provide a means through which the community service can be studied and interpreted, much as a text is read and studied for deeper understanding (Bringle & Hatcher, 1999)

The primary vehicle we will use for reflection is journaling. You will be asked to put your reflection in writing throughout the entire semester. I have created an online journal management system for that I hope makes this process easier for all of us. This system lets you enter free form journal entries, which I encourage you to do after every team meeting, every class, or after any other significant events in the life of the service experience. The system also lets you enter prompted journal entries, for which you will be asked a specific question relevant to the current topics we are

working on. Finally, the system lets you add comments to the journal entries submitted by your classmates.

There is no firm minimum requirement for journal submissions. I would like to see everyone submit at least one prompted journal entry each week, and one comment to other's journal entries each week. I think any fewer than that and you're simply not taking the reflection task seriously. However, I also want to emphasize that quality is valued over quantity. Your reflection should always strive to connect the service experience with the course content, and your journal entries should demonstrate clearly that you can and have made these connections. You should always try to make specific references to both the experience and class content, and specifically explain how the two fit together. As you write your journal entries, I recommend that you imagine my voice in your head asking "What do you mean? Could you explain that further?" over and over. If you use too few words, I fear you may fail to adequately demonstrate the connection between experiences and class. So always try to explain your thoughts and feelings as fully as you can.

We will also engage in reflection activities in class, through large- and small-group discussions and exercises. You should also expect me to periodically ask you to engage in other, usually written, reflection activities.

The following criteria will be used to assign grades to your journals:

If your journaling effort...	it will earn a grade of...
1. Explicitly demonstrates an understanding of the course content relevant at that time	A
2. Explains how the service experience relates to the course content, and enhances your understanding and/or appreciation of that content	
3. Uses specific examples to explain this relationship	
satisfies only 2 of the 3 points listed above	B
satisfies only 1 of the 3 points listed above	C
fails to satisfy any of the 3 points listed above	D
demonstrates no understanding of these three points	F

A final word about your journaling... You should consider your journal entries as **public**, so do not put any identifying information in them. I expect we will discuss particular journal entries in class frequently throughout the semester. The journal entries are **anonymous**, so no one will ever know who wrote a particular journal entry. The online system is even designed to hide your identity from me, so I won't know who you are when I offer feedback on the journal entries. If you ever want to record journal entries that you feel are too personal or private to submit through the online system, you are welcome to put them on paper. If you like, you can even keep these to yourself, so I do not have to have access to every journal entry you wish to make. But I at least need to see enough journaling that I can assess your ability to make the connections mentioned above.

Service Project:

The Service Project provides you with “real world” experience as a systems developer. Working with a team of other students, you will be required to develop a fully functional information system with complete documentation. The teams will be formed on the second day of class. Two grades are based on the Service project:

Information System: The information system you develop must include a relational database with a graphical user interface, and must be ready to use by the client by the end of the semester. You will be required to install your information system on a computer in my office (or provide me with a setup CD), so I can test it and evaluate it.

Project Workbook: The Project Workbook documents in great detail the planning, execution, and evaluation of each stage of your system’s development. Your Project Workbook must be prepared in **HTML** format and uploaded onto the course website. The workbook contains approximately 14 sections, which will be submitted in five separate steps or “milestones.” The specific requirements for the Project Workbook will be detailed in a separate document.

Team/Self Evaluation: At the end of the course each individual will be required to submit an evaluation of his or herself and each team member. The evaluations will essentially ask “What percentage of the team's grade does this person deserve for the system and workbook?” The evaluations will be averaged for each person. Everyone has a right to see their evaluations, so these should be considered neither confidential nor anonymous.

Assumed Skills:

Given the coursework you have taken prior to this point, I am assuming you have a certain set of technical skills. You should be able to...

1. Write a Visual Basic program that interacts with an Access database.
2. Design and build a relational database using Access.
3. Create a simple HTML document from scratch using a text editor or word processor. You should be able to use tags to format text, display images, create hyperlinks, and make lists and tables.
4. Use PowerPoint or some other graphics program to create images in .jpg or .gif format.
5. Rename files.
6. Use an FTP program to transfer files from a PC to a web server, and to rename files on the server.

Homework Submissions:

Homework submissions must in a format readable by Netscape, which means HTML for text and JPG or GIF for images. Do not waste time with any advanced web page design features – keep it simple. **Do not use any file formats, tags, or other features that are proprietary to Internet Explorer.**

The HTML and graphics files you create for each homework are to be uploaded using an FTP program to the following location:

Host Address: projects.bus.lsu.edu
UserID: ISDS4125
Password: goodclass
Folder: /classes/fall02/ISDS4125/homeworks/Chapter_##

There is a separate folder for each chapter's homework assignment, so for Chapter 2's homework you should upload it into the /Chapter_02 folder.

The filenames you choose for your homeworks must conform **exactly** to the following specifications. There must be an HTML file named "ch##12345.html," where "ch##" notes the chapter number (with a leading zero for chapters 2 through 9), and "12345" is the last five digits of your SSN/ID. If you include any additional files, such as graphics, I recommend they follow this same format, with additional characters after your ID to differentiate each one. The course web site includes a page for each chapter's homework with links to every student's submissions. These links will not work if you deviate from this filenaming convention, so please follow it to the letter.

Here's an example. For the first homework assignment, which is from chapter 2, I would create an HTML file that is called ch0200030.html. This file contains text formatted using standard HTML tags, and an tag to display the graphic. This graphic is a JPG file called ch0200030a.jpg. Note the letter "a" at the end of the filename. You can use whatever naming scheme makes sense to you, as long as the filenames are unique.

DO NOT PUT YOUR NAME ON YOUR HOMEWORK SUBMISSIONS. I will use the five digits of your ID that you put in the filename to identify your homework. All of the homework submissions will be uploaded to the web where everyone will be able to view everyone else's work. This will allow you to learn from each other, and for us to talk about specific homework submissions, without identifying any single individual. If you would like to discuss any of your homework submissions personally, stop by during office hours or make an appointment.

Grade Calculation Worksheet

	0	90
First Exam Grade (%) =	<u>0</u>	<u>90</u>
x 4.0 =	<u>0</u>	<u>3.6</u>
x 15% weight =	<u><u>0</u></u>	<u><u>0.54</u></u>
Second Exam Grade (%) =	<u>0</u>	<u>80</u>
x 4.0 =	<u>0</u>	<u>3.2</u>
x 15% weight =	<u><u>0</u></u>	<u><u>0.48</u></u>
Workbook Letter Grade =		A
Convert to 4-pt scale =	<u>0</u>	<u>4</u>
Team/Self Eval adjustment =	<u>1</u>	<u>0.96</u>
Workbook Grade x TSE adjustment =	<u>0</u>	<u>3.84</u>
x 20% weight =	<u><u>0</u></u>	<u><u>0.768</u></u>
System Letter Grade =		B
Convert to 4-pt scale =	<u>0</u>	<u>3</u>
Team/Self Eval adjustment =	<u>1</u>	<u>0.8</u>
System Grade x TSE adjustment =	<u>0</u>	<u>2.4</u>
x 20% weight =	<u><u>0</u></u>	<u><u>0.48</u></u>
Number of Homeworks (10 max) =	<u>0</u>	<u>9</u>
divided by 10 =	<u>0</u>	<u>0.9</u>
x 4.0	<u>0</u>	<u>3.6</u>
x 10% weight =	<u><u>0</u></u>	<u><u>0.36</u></u>
Reflection Letter Grade		A
Convert to 4-pt scale =	<u>0</u>	<u>4</u>
x 20% weight =	<u><u>0</u></u>	<u><u>0.8</u></u>
SUM of weighted scores =	0	3.428
	F	B