School of Information & Library Science
University of North Carolina, Chapel Hill
INLS 382 Information Systems Analysis & Design
Fall 2020

Day: Thursday
Time: 6:40 - 9:25 p.m.
Instructor: Dr. Ryan Urquhart (ryanu@email.unc.edu)

Course Material
A textbook is not assigned for this course. We will use online resources, such as articles and selected videos for this course. In previous semesters we have used "Modern Systems Analysis and Design," J. A. Hoffer, J. F. George, J. S. Valacich, Prentice Hall. A copy of this book can be found in the library if you want an additional source of information about analysis and design.

Overview
This course offers students an opportunity to gain familiarity and fluency with a set of widely used techniques for the design and improvement of information systems. The course may be of value both to students who intend to pursue careers in system development and to those who will be customers or managers of system development projects. The course may also be of interest to those engaged in the design of *business* architecture, who may wish to avail themselves of design techniques developed for information systems.

Central to the course is a semester long project in which students work in small teams to develop a set of requirements and a prototype for an information system which addresses business needs of an actual client. Through this project students have an opportunity to apply the techniques learned in the course as well as to develop important project management and organizational skills.

This class is different from most classes and that is intentional. It focuses on experiential learning. It is meant to be more collaborative, process oriented, and self-directed than seems typical. That is because the class is designed to be a microcosm of how systems organizations operate in the professional world – or at least as much as we can in an academic context. It requires students to be more proactive and it presumes that most of the work goes on inside and outside of class as in organizations, where most of the work takes place outside of staff meetings.

Finally, it is extremely important for students to realize that systems analysis and design is not a subject to be studied only by those who intend to become professional systems developers or consultants. We will all likely be end users of information technology and therefore directly involved in creating systems requirements, if not analysis and design.

Learning Objectives
Systems analysis and design is not primarily a technical process. It is more a human process, requiring technical, management, team development, and interpersonal skills. However systems analysis and design does require understanding technology and mastering certain technical skills. It follows that this course includes both technical and organizational learning objectives.

By participating actively in this course and completing the assignments you should expect to:

1. Learn how to identify an organization's information processing requirements.

2. Learn how to develop a detailed specification for an information system that can fulfill these requirements.

3. Understand that the successful systems analyst needs to have a broad understanding of organizations, organizational culture, organizational change, organizational operations, and business processes.

4. Understand that IT strategy must be conceived in an interaction with overall organizational strategy.

 5. Knowledge and understanding

- Understand the principles and tools of systems analysis and design
- Understand the application of computing in different context
- Understand the professional and ethical responsibilities of practicing the computer professional including understanding the need for quality

6. Cognitive skills (thinking and analysis).

- Solve a wide range of problems related to the analysis, design and construction of information systems

- Analysis and Design of systems of small sizes

7. Communication skills (personal and academic).
- Be able to present projects

8. Practical and subject specific skills (Transferable Skills).
- Plan and undertake a major individual project, prepare and deliver coherent and structured verbal and written technical reports

In support of the more technical objectives (1 & 2 above), students will learn a set of specific techniques and methods that represent current best practice for systems analysis and design. These techniques are based on the Unified Modeling Language (UML), a visual language for describing information systems. UML is a set of diagramming techniques employed in both the analysis and design phases of object-oriented development projects. It has emerged as a critical competency for systems analysts in today's environment.

In support of the more organizational objectives (3 & 4 above), students will analyze business cases, hear from speakers in the industry, and explore current thinking about agile development, organizational culture, and research on user interactions with information systems.

Assignments

Readings will typically be assigned for each class period, and will be listed in the course calendar for the appropriate date. Please come prepared. I expect all students to participate in class discussions. You will not receive maximum participation credit if you are silent all semester.

We will use Sakai for submitting course assignments. If the assignment will only allow attachments, then the assignment should typed using 12 font size and 1.5 spacing. Additionally, it should be saved as a pdf in the following format lastnamefirstinitial_Assignment #. For example, if your name is John Brown and you've completed an individual assignment (e.g. assignment #1), the uploaded file would be "brownj_Assignment#1".

If it's a team assignment, then the person submitting the assignment should use his or her name and include the assignment. For example, "brownj_Milestone 1. Note: Include your team members name on the title page of the assignment, not the filename.

Failure to submit work on time and/or save as a pdf and upload the file correctly will result in 30 pts being deducted from the assignment.

Weekly Article

Each student will be required to find an article from a magazine, newspaper, reputable website and present it as it relates to the subject matter being taught that day **OR** about Information Systems. Each presentation and write-up will be worth 20 points (10 paper / 10 presentation).

Submit the url in the Chat Room in Sakai **Tuesday at noon**. 5 points will be deducted if your article isn't posted Tuesday by noon. I strongly suggest you place a reminder in your phone so that you will be aware of this deadline.

The write-up should answer the following questions
What the problem (or information system) is about?
How does it relate to the class?
How is it helping the business day-to-day operations?
What would occur if the information system was not in place?
There is always room for improvement, so what can be done to make the information system better?

The presentation should address the two questions in purple (from above) and two questions from the forum. It should be no more than 5 slides.

It the responsibility of your colleagues to read the article before class and post two questions in the Forum for that week. The questions must be posted before 6pm on the day of class. If you are presenting for that week, you should

NOT post questions for your own article. I will be keeping record of who posted questions prior to the start of class.

The write-up should be 1-2 paragraphs and submitted inline and the presentation should be attached as a PDF, prior to the start of class. Both should be submitted under the title "Class Participation 1 (Weekly article)". Failure to do so will result in 5 points being deducted.

If possible, I would like for your video camera to be turned on when presenting or asking a question

SHORT QUIZZES
We will have two quizzes. If you do your homework and participate in team assignments, then you will excel on each quiz. I reserve the right to introduce additional quizzes during class, if everyone isn't participating.

PROJECTS
Students will form teams and each team will work on a systems analysis and design project. This project is an integral part of the course, since it allows students to apply the concepts, methodologies, and tools in the context of a real-world application.

PROJECT SELECTION
Each team will select a real-world application during the first week of the course. The application/system may come from the team's collective work experience. The following are important guidelines for selecting a system.

• The system must offer good potential for systems analysis work. Indicators for such potential are: problems/deficiencies with the current information systems in the organization; unfulfilled information needs; and new information requirements (e.g. as a result of a new product/service in response to competition and a changing environment).

• The key people must be accessible. Each team must identify key users in the target organization. These users will be the source for most of the information that the team needs in order to successfully perform systems analysis. Therefore, it is important to consider a user's commitment and involvement with the project. Accessibility to information and the user are important considerations.

• The size and scope of the application/system must be manageable so that the project work would be completed by the end of the semester.

PROJECT MILESTONES
Each team will submit a project proposal in Milestone #1. I will review the proposal with each team and, if necessary, the proposal will be revised and modified. I will continue to be the project manager and review each team's progress on the project. As quality assurance, I will review the team's documentation for completeness and accuracy. The project will be divided into milestones. Milestones are due on the dates indicated in the course schedule.

There are penalties for late milestones. There are 3 milestones:
Milestone #1 : Project Proposal
Milestone #2 : Business Analysis and System Study - The Current System
Milestone #3 : Systems Implementation and Presentation

Grading
Assignments and Projects – 25%
Class Participation – 15%
Final – 20%
Milestones – 15%
Quizzes - 10%
Overall Participation - 15%

The grading scale below will be used for the semester.

A 90-100; **B** 89-80.9; **C** 79-70; **D** 69-60; **F** -59-0

Grades will be posted in the Sakai gradebook.

Academic integrity

Academic dishonesty is a very serious offense. In this course many of the assignments will involve teamwork, and our learning process will hopefully be highly collaborative, but be sure that individual assignments including exams represent your own work. Any assignments or exams that are suspiciously similar or which give rise to any suspicion of plagiarism will trigger an unpleasant inquiry. Actual cases of cheating are generally dealt with severely. People have failed courses and been kicked out of school for this.

Privacy, Confidentiality, Civility, and Reasonableness

As a reminder, it is an essential part of this learning environment to have respect for individual and client privacy and confidentiality when it comes to sharing and discussing participants' "out of class" organizational/personal experiences. This class should provide everyone with a safe environment to test their assumptions and to try new behaviors and roles. I am confident that we will develop a nurturing and challenging learning community that is invested in the growth and development of all its members. Confidentiality would also apply to interactions with clients and information about client organizations.

The duty of civility is simply the obligation to be reasonable. This involves the obligation to be able to explain to one another how the ideas, principles, and policies they advocate can be supported. It also involves the willingness to listen to others and fair-mindedness in deciding when accommodations to their views should reasonably be made.

Use of Laptops and Other Devices

This class meets once a week and our class time is a precious resource. The success of the class depends on all of us being fully engaged in the class. I ask that you treat your electronic devices as you would in an important business meeting in which you are highly visible. Laptops should be used only for note taking or other class related matters. If you don't absolutely need your laptop I suggest you keep it closed. Cell phones and tablets should ideally be shut off during class or at least silenced. If you are going to be distracted by a vibrating phone, please turn it off completely. If you have an urgent need to use your device during class time, please be discrete about it and respect those around you. If you need to briefly leave the class in order to attend to urgent business, that would be preferable to staying in class and distracting others. I reserve the right to adjust the class participation grade in response to classroom use of devices that creates a distraction for me or other students. If you have any questions or concerns about this policy please bring them up.

There is another side to this issue, however, for which I must take primary responsibility. My goal and my intention is to keep the class as engaging as possible, to offer adequate breaks and changes in pace and activity to allow us all to stay engaged through what is a big chunk of time at a late hour in the day. If you ever have concerns, feedback, or suggestions about the pace and energy level of the class, please bring them up.

Equality Statement

The instructor is dedicated to establishing a learning environment that promotes diversity of the students including race, class, culture, religion, gender, sexual identity, and physical ability. It is important that this is a safe classroom environment. We will practice being generous and respectful members of our classroom community. Anyone noticing discriminatory behavior in this class, or who feels discriminated against, should bring it to the attention of the instructor immediately.

4 Simple Rules for Success

This course has 4 important rules. If you choose to follow these rules, your odds of learning the material and earning a good grade in this class will improve greatly (these rules will also help you succeed in your other classes).

1. Show up
2. Do the work
3. Actively participate
4. Be Honest

The Honor Code will be in effect. Do not give or receive any unauthorized aid. If you have any questions about this, please contact me!