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INFO 450-01 Systems Analysis and Design

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Xavier University

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Info 450 – 01 Systems Analysis and Design

COURSE SYLLABUS

CLASS LOCATION AND TIME: Smith Hall Rm. G28 (Wednesday 6:00 - 8:30pm)

INSTRUCTOR:

Name	Joel Asay
Email:	asayj@xavier.edu
Office Location:	Room 221 Smith Hall
Office Hours:	**Mon and Wed** 12noon – 2:00PM
	Tuesday 3:00pm – 5:00pm
	Or by appointment
Telephone:	513-475-2938 (Office)

PRE-REQUISITES

This is a senior level course that is required for Information Systems majors, and is a direct prerequisite to the IS capstone course, System Development Project (INFO-495). Assuming that prerequisite requirements are met, this class could also benefit anyone who will interact with computer professionals. It is assumed that students have all prerequisites from the IS program, as well as from other business programs including, Management, Accounting, and Finance. Specific courses listed as prerequisites are FINC-300, MGMT-300, and MKTG-300, with INFO-358 as a prerequisite or co-requisite. Questions concerning prerequisites should be discussed with the professor at the beginning of the class.

COURSE DESCRIPTION AND OBJECTIVES

This course focuses on structured tools and techniques for the development of computerized information systems with emphasis on the process involved in the analysis and design of the development process. Special emphasis will be placed on team development, on project management, and on quality control for the development of effective and efficient information systems.

The primary objective of this course, combined with the System Development Project (INFO-495) course, is to assist students in learning Systems Analysis and Design concepts, techniques, and processes. We are primarily concerned with the technical and management issues concerning the analysis, design and integration of information systems into an organization. We will examine issues such as how we decide what new information systems an organization needs, how we approach the development and management of the systems, and how we manage the information system project.

The objectives of the course are to enable students understand:

- the organizational and technical process of information systems development from conception to use
- the management of information systems within the organizations
- the process of developing a small-scale information system

This is accomplished through the use of the book, case problems, group interaction, preparation for the INFO-495 project. A structured life cycle approach and associated techniques will be emphasized. The approach begins with problem identification and ends with the design, implementation, and support of an information system that will include both technology and business processes. Students successfully completing this class should have a good understanding of how to utilize technology to solve business problems. Appropriate oral and written communication skills are important.

Students will be responsible for activities such as data modeling, database creation and management, project management, cost/benefit analysis, application generation, report writing and possibly web design, data analytics and incorporating these tools into a business strategy—depending on project and case. These topics will be discussed at an overview level, but detailed instruction will not be provided. Students are expected to pursue outside resources (Writing Center, textbooks, library, Web sites, consultation with the instructor, etc.) to review those areas in which they may be deficient.

TEXTS AND OTHER MATERIALS

Required Text: *Systems Analysis and Design, 10th Edition,*
Harry Rosenblatt, Cengage, 2013
ISBN: 9781285171340

COURSE POLICIES AND REQUIREMENTS

Attendance and participation: You are expected to attend each class meeting. Each **unexcused** absence will be recorded as a zero score for that day in the Attendance/Participation area. Class participation is critical for a successful course as reflected in the Attendance/Participation portion of the grade distribution. Class participation will involve required reading assignments and group projects. For any group activity, you must be present to receive the group grade. If you are absent you will receive a zero for that group activity.

Assignments and Exams: All assignments are due at the beginning of class on the due days (given in the course schedule). *Unapproved* late submission of assignments **will be not accepted**. Failure to turn in an assignment results in zero. Please come talk to the professor if you have any difficulties with completing assignments or exams on time.

Most assignments will be assigned at the end of a class period, depending on the content covered for the week. In order to make any homework content applicable, the assignments will be targeted at helping you gain the skills necessary for your group projects.

Academic Dishonesty: Unless otherwise specified (e.g., group projects or presentations), all assignments should be done individually. If you are caught using other student's work at any point in the exercises or any part of the course, it will result in an F for the course and additional discipline according to the policy of Xavier University.

The following items are expected of a student in this class:

1. This course requires that the student study, ahead of time, the material allocated for that class period. This means you must read the assigned work prior to the lecture. Each class period will consist of lectures, group work and either class tests, or presentations by students on the previous class lecture.
2. Homework may be assigned to reinforce the concepts presented in class. Homework will have assigned due dates and may or may not be collected for graded credit. Work must be turned in by the start of class on the day it is due. Late assignments must be turned in within one week of the original due date.
3. All tests must be taken at the appropriate time. If a student has to miss a test, the student must discuss the absence with me **BEFORE** the test date. Remember that any student missing an exam without prior permission will be given a zero as a grade on the missed test.
4. I expect technology to be used appropriately in class—as you would in a business environment. If you need to take a phone call, or use your cell phone, please step out into the hall so you do not distract others.

TESTING AND ASSIGNMENTS
There will be two exams during the semester. Test materials will come from the lectures, in-class activities and will be *reinforced* by the text book. Questions could include true/false, multiple choice, matching, short answers, essay and other forms that could be used to determine the student's understanding of the topic or process.

Assignments will be given throughout the semester and may or may not be collected for grading purposes. The goal of assignments are to reinforce the concepts discussed in class and are NOT designed to be busy work.

CASE PROJECT
The Case Project will be assigned half-way through the semester. Project work will be scheduled throughout the semester, which will require students to manage time allocated to project and non-project assignments. Some class sessions will be reserved for students to work together in groups to complete their project goals. Students will perform the analysis required to understand the business problem and develop written and oral proposals that could provide a desirable solution. These may include group presentations, simulations, video trainings, data modeling, web design, etc. Team meetings with the instructor will be used to provide feedback during this process.

The remaining phases of the project, including design and implementation, will be completed in the System Development Project course (INFO-495). Specific project

deliverables could vary based upon the nature of the project, and will be discussed in more detail when the projects are assigned.

Project assignments will be Service Learning Projects, which are designed to help non-profit organizations, while teaching students to define, design, and implement Information Systems projects using a System Development Life Cycle approach. To complete the Service Learning projects, students must understand the work of the various non-profit organizations and the impact that they have on the community. This is very much in line with the WCB Mission, which states: "We educate students of business, enabling them to improve organizations and society, consistent with the Jesuit tradition". In the past, many projects have been developed using Microsoft Access or MySQL with some Visual Basic subroutines. Other projects may include deploying technology in a workplace, networking devices, security and creating web tools. Although these skills should be developed in the prerequisite classes, students may be required to obtain reference material necessary to expand knowledge of the required development technologies.

Specific Service Learning projects could involve new development and/or enhancements to existing systems. Students will be required to learn the details of existing systems and how components to those systems interact. This will also require a clear understanding of what needs to be done to enhance the system or complete a new development project. **This is often the most difficult component to systems analysis and design!** Careful attention to detail in the testing and implementation process will be required to ensure that a quality product is delivered. Students must effectively communicate with assigned clients to clearly understand the requirements, and develop a solid testing and implementation plan.

SKILLS ASSESSMENT SURVEY
At the beginning of the semester, students will be asked to respond to a skills assessment survey provided by the instructor. The survey will be online and it will ask students to respond to a variety of questions regarding their experience and exposure to different information systems and business intelligence components. The purpose of the survey is to appropriately assign students into groups for their respective projects.

MIS LAB—SMH 218
As juniors and seniors in MIS, you have access to the MIS Lab in Smith Hall, room 218. When not reserved or occupied for faculty meetings or teaching purposes, this space is available to you for working on your assignments and group projects. The code to the key box for this room is: **52398.** Please do not share the code with other students, friends, etc. unless they are also MIS upperclassmen. If you unlock the room upon arrival, please lock it when you leave.

GRADING

The student's final grade will be determined by the two exams, work completed on the case project, project participation, homeworks and class participation. **Peer evaluations,** instructor observations, and client input will be used to determine an individual's project participation. It is important that all members of the group fully participate in the project. Each project will be assigned a grade based upon the work completed by the project team. If a student does not fully participate in the project, that student's grade will be lowered accordingly. Students are also expected to read the chapters, attend class regularly, participate in class discussions, and complete other assignments as requested. Final grades will be calculated as follows:

GRADING DISTRIBUTION

	Grade %	A	94-100	C+	77-79
Exam I	25%	A-	90-93	C	73-76
Exam II(Final)	25%	B+	87-89	C-	70-72
Case Project (with peer review)	30%	B	83-86	D	60-69
Class Participation, Homework, In-class exercises	20%	B-	80-82	F	Below 60

Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me by sharing their Accommodation Letters with me at the beginning of the semester either during office hours or by appointment. Disability related information is confidential. If you have not previously contacted Disability Services, I encourage you to do so by phone at 513-745-3280, in person on the Fifth Floor of the Conaton Learning Commons, Room 514, or via e-mail to Cassandra Jones at jonesc20@xavier.edu, to coordinate reasonable accommodations as soon as possible as accommodations are not retroactive.

It is my goal that this class be an accessible and welcoming experience for all students. If you are a student with a disability who may have trouble participating or effectively demonstrating learning in this course, contact me to arrange an appointment to share your Accommodation Letters from Disability Services and to discuss your needs. Disability related information is confidential. If you have not contacted Disability Services (located in the Learning Assistance Center) to arrange accommodations, I encourage you to do so by contacting Cassandra Jones, by phone at 513-745-3280, in person on the Fifth Floor of the Conaton Learning Commons, Room 514, or via e-mail at jonesc20@xavier.edu as soon as possible as accommodations are not retroactive.

Tentative Schedule (Subject to Change)

Week	Date	Textbook Chapter	Special Events and Assignments
1	26-Aug	1	Introductions, Skills Assessment Survey
2	2-Sep	1 & 2	
3	9-Sep	3	
4	16-Sep	4	
5	23-Sep	4	
6	30-Sep	5	
7	7-Oct	5	Presentations from Project Organizations
8	14-Oct	6 & 7	
9	21-Oct		Exam 1 (Chapters 1-5, 8). Oral report from project groups on initial client contact. Project team meetings.
10	28-Oct	8	
11	4-Nov	10	Oral status reports from groups. Project team meetings.
12	11-Nov	11	
13	18-Nov	12	Oral status reports from groups. Project team meetings.
14	25-Nov	Thanks-giving	No Class
15	2-Dec		Project team meetings, Case Work Assignments
16	9-Dec		Final project presentations. Peer evaluations.
17	16-Dec		Exam 2 (Chapters 10-12, 14-16, 18)

* The professor will likely have a conference to attend in October which may require a class to be cancelled, held online or may result in Exam 1 being a take-home exam.