

UNIVERSITY OF ILLINOIS AT CHICAGO  
College of Business Administration

**IDS 405 : Business Systems Analysis and Design**  
(Fall 2008)

**Class Time/Location** T R 9:30-10:45 (BH 208)

**Instructor** Dr. Siddhartha Bhattacharyya  
UH 2408  
312-996-8794, [sidb@uic.edu](mailto:sidb@uic.edu)

**Text** Jeffrey L. Whitten and Lonnie D. Bentley.. Systems Analysis and Design Methods 7<sup>th</sup> Edition. McGraw Hill, 2007.

**Objectives**

This is a course on the analysis, design, and implementation of information systems. All stages of the systems development life cycle will be considered, with specific focus on analysis and design of business information systems. The course aims at providing a foundation in traditional structured analysis and design techniques, together with an introduction to object-oriented and UML based analysis and design techniques that are increasingly in use today. The basic topics that will be discussed are: lifecycle approaches, feasibility, business process and requirements analysis, techniques for structured analysis, various aspects of system design including system data, behavior and interfaces, testing, and system implementation considerations; concepts in UML and object-orientation will also be examined in relation to these basic topics.

Students will work on a series of assignments covering various activities in the systems analysis and design process. These assignments, based on cases simulating real-life projects, will provide hands-on experience in analyzing and designing computer-based information systems.

**Grading Criteria**

Exam 1	30%
Exam 2	30%
Assignments	40%

**Group Assignments**

Students will work in groups to complete a series of case-assignments pertaining to various aspects of systems analysis and design. Students will work in assigned groups of 4 people. Assignment due-dates will be strictly adhered to, with late submissions being subject to a penalty of 20% per day late. Note that for evaluation, correctness and content, as well as presentation style – clarity, format, manner of presentation – are important.

Group members will need to provide an evaluation of each other's contribution for each assignment. Contribution of team members will also be assessed from individual meetings with the instructor. Please note that lack of adequate contribution to the team effort will result in significant assignment point deductions for individual team members.

**General**

Students are expected to keep up with course related emails, announcements, etc as discussed in class and in the Blackboard course site.

Students are expected to respect and act in accordance with the CBA Honor Code. Please familiarize with Honor code at [www.uic.edu/cba/Faculty/academicaffairs/honorcode.html](http://www.uic.edu/cba/Faculty/academicaffairs/honorcode.html)

## Schedule

The following is a tentative sequence of topics to be covered. Assigned readings should be completed prior to the next class session.

Information Systems Development - Introduction and Context  
Systems Development Lifecycle and Approaches [Chapters 1, 2]

Systems Analysis [Chapters 4, 5]  
Workflow Diagrams

Use Case modeling [Chapter 7]  
Assignment 1

Data modeling [Chapter 8]  
Assignment 2

Process modeling [Chapter 9]  
Data Flow Diagrams  
Assignment 3

EXAM 1

Objects and Classes  
Object-oriented analysis, UML [Chapter 10]  
Assignment 4

Feasibility, Cost-Benefit Analysis [Chapter 11]  
Assignment 5

System Design  
Physical design, program design [Chapter 12, 13]  
Database design [Chapter 14]  
Object-oriented design [Chapter 18]  
Assignment 6

Input, Output, User Interface design  
[Chapters 15, 16, 17]

System Implementation, System testing  
Installation, Conversion [Chapter 19, 20]

EXAM 2