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IS 473.01: Systems Analysis and Design

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Systems Analysis and Design

IS 473

Spring, 2004

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Course Description

This course serves two audiences: (1) those who want to be an information systems analyst, consultant, or project manager; and (2) those who will be users or managers involved in systems development projects, an active member of a project team, or the client for a system request.

Since systems development is central to the IS field, this is a core course for training you for your career. The course covers information systems concepts, systems analysis and design methodologies and techniques, and technologies used during the development of information systems. A key emphasis of the course is project management and working in teams. Within this framework, there is an emphasis on setting IS project goals, developing work plans and methods to achieve those goals, and measuring progress against a project plan.

Learning Objectives

The overall course objective is to provide the concepts and skills you need to analyze and design information systems. This course concentrates on the front-end of the systems development process; that is, the course only lightly touches on the design and development of computer programs and their testing and maintenance (although you will work through some elements of the whole development process on your project).

Upon successful completion of the course, you are expected to be able to:

- Describe the major alternative methodologies used in developing information systems and the considerations involved in choosing which methodology to use.
- Produce the requisite systems documentation at each point in the analysis and design of an information system, and to do so with clarity and completeness.
- Analyze a business need for information and to develop an appropriate strategy to solve the problem and provide the required information service.
- Prepare and use various information-gathering techniques for eliciting user information requirements and system expectations.
- Construct and interpret a variety of system description documents, including physical and logical data flow diagrams, entity-relationship diagrams, Structured

English, structure charts, state-transition diagrams, as well as screen, form, and report layouts.

- Communicate effectively, in both written and oral forms, systems specifications, and to be persuasive in these presentations.
- Develop a personal plan for improving yourself to become a better systems professional or user/manager of a system, by understanding your own strengths and weaknesses and matching those with the critical success factors of a modern business manager.
- Discuss analysis and design issues as they relate to the development of Internet-based electronic commerce applications.

Required Textbook

Valacich, Joseph, Joey George, and Jeffrey Hoffer. Essentials of Systems Analysis and Design. 2nd ed. Upper Saddle River: Prentice Hall, 2004. ISBN: 0-13-101605-9.

Grading Scale

Your letter grade for this course is determined on the basis of the overall weighted score computed using the percentage breakdown outlined below.

<u>Letter Grade</u>	<u>Percentage</u>
A	90.00 and above
B	80.00 – 89.99
C	70.00 – 79.99
D	60.00 – 69.99
F	0 – 59.99

Weekly Schedule

A weekly schedule is provided below. Assignments for each chapter will be communicated to you verbally or in writing.

Week	Topic	Readings
1	Introduction to Course Systems Development Environment Group Formation	Preface Chapter 1
2	Managing the Information Systems Project	Chapter 2
3	Systems Planning and Selection	Chapter 3

Week	Topic	Readings
4	Exam 1 - Chapters 1, 2 and 3	
5	Determining System Requirements Project Interviews and Other Requirements	Chapter 4
6	Structuring System Requirements: Process Modeling	Chapter 5
7	Structuring System Requirements: Conceptual Data Modeling	Chapter 6
8	Selecting the Best Alternative Design Strategy Project Requirements Walkthrough	Chapter 7
9	Exam 2 – Chapters 4, 5, 6 and 7 Group Meetings	
10	Spring Break	
11	Object-Oriented Analysis and Design	Appendix A
12	Rapid Application Development and Case Tools	Appendix B
13	Designing the Human Interface	Chapter 8
14	Systems Implementation and Operation	Chapter 10
15	Exam 3 (Chapter 8, 10, Appendix A and B)	