ITM 511
Information Systems Analysis and Design
Fall 2007

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Required Textbook

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.

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.
- 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, some UML diagrams (such as state-transition, activity and use case diagrams), Structured English, structure charts.
• 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.

**Tentative Schedule**

<table>
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<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
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| 1    | Introduction, Systems Development Environment, Systems Planning and Selection | Chapter 1  
Chapter 3 |
| 2    | Determining System Requirements, Process Oriented Approach | Chapter 4  
Chapter 5 |
| 3    | Data Oriented Approach, Selecting the Best Alternative Design Strategy | Chapter 6  
Chapter 7 |
| 4    | System Implementation & Operation | Chapter 10 |
| 5    | Object-Oriented Approach | Appendix A |
| 6    | Object-Oriented Approach | Appendix A |
| 7    | Guest Speaker: | |

**Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>3 Homeworks</td>
<td>45 %</td>
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| Take Home Final Exam | 35 %  
Jan. 14th 2008 |
| Attendance & Class Participation | 20 % |
| **Total** | **100 %** |

**Homework:** There will be 3 homeworks. You suppose to do them by yourself, however you can discuss it with other classmates in order to get some idea and insight. After submitting each homework, it will be discussed in the lecture hours. Class participation is also important during discussion. Late submissions will be considered as zero points.
**Final Exam:** It will be a take-home exam and cover analyzing and designing an IS system that is assigned by the instructor for each student individually.

**Attendance & Class Participation:** Formal attendance will not be taken. However, you are responsible for all information provided in class. This includes schedule changes as well as lecture materials. There will be several short case studies that will be read and discussed during lecture hours. Class participation is also important during case discussion.

**Plagiarism & Academic Dishonesty:** Every paper you submit to me should be an original piece of writing, presenting your ideas in your own words unless otherwise noted. Everything you borrow from books, articles, visual material or web sites (including those in the syllabus) should be properly cited. You are free to use sources outside of the course material as long as you cite them. You are also free (in fact, encouraged) to discuss your papers and research ideas with others (including your friends in the class), but it is important that you do not share your writing with anyone until it has been graded. Plagiarism is a very serious misdeed that can result in a reduced grade or an F (for the paper and/or the course). Please pay utmost attention to avoid this accusation. I will follow the university guidelines on academic dishonesty. It is your responsibility to read the university guidelines on this matter.