MIS 7655: Advanced Systems Analysis  
Spring 2011

Professor: Robin Poston  
Office Hours: Wednesday 5:00 am – 7:00 pm  
Other times by Appointment  
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Room: FAB 309  
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State-of-the-Art Academic and Industry Readings as well as presentations, additional readings and case studies are available for download, go to http://umdrive.memphis.edu/rposton

Learning Objectives

This course focuses advanced concepts in information systems planning and development with focus on current information technologies and systems development practices that lead to timely delivery of effective information systems solutions; special attention on communication and interpersonal skills required for today's systems development activities. Students will also learn to evaluate the delivery of new technologies in relation to their role as designers, facilitators and change agents in managing both the development and implementation of computer–based information systems as well as technology innovations. PREREQUISITE: MIS 7610.

MSBA Learning Outcomes for the Fogelman College of Business and Economics

**Goal 1: Graduates will be competent in the use of technology.**
- Use typical business application software packages effectively.
- Use internet for common business research tasks.

**Goal 2: Graduates will be effective communicators.**
- State purpose: early, clearly, creatively, skillfully.
- Organize and develop: structure, connect, separate, flow.

**Goal 3: Graduates will be aware of factors affecting business in a global society.**
- Identify global factors.
- Analyze global factors.

**Goal 4: Graduates will be problem solvers.**
- Apply theories and facts to solve problems.
• Critically evaluate arguments, theories, and recommendations.

Course Format & Teaching Philosophy:

It is a requirement that students participate actively in discussions on assigned cases and material in class to reinforce the concepts from each chapter of the textbook. A “co-construction” teaching/learning approach is used to structure the course to help students develop their own perspectives and philosophies pertaining to strategic information resource management and advanced system analysis and design. Learners are encouraged to pay careful attention to the context in which advanced system analysis and design takes place in developing personalized contingency-based theoretical ideas about technology management. Lectures, guest speakers, debates, exams, a real-world information systems project and student presentations will be used to assist learners with developing their personal managerial philosophy about the challenges faced by those involved in advanced system analysis and design. At the end of this course the student should understand the broad issues involved in strategically managing the IT resource and:

• Improved your understanding of the information system development process, the different development methodologies, and the appropriateness of each
• Acquired and/or improved your ability to evoke and develop end-user needs and expectations
• Developed and/or enhanced your skills required for modeling data and process requirements of an information system and business processes
• Gained an understanding of the role of CASE tools in systems development process
• Enhanced your technical writing, interpersonal communications skills, and teamwork
• Experience successful and effective project planning and management
• Established an awareness and understanding of current "state of the practice" in information systems and business process development

Course Requirements and Evaluation

The course will consist of lectures, case studies, in-class activities, debates, a final exam, student presentations and two team projects. It will involve significant student input and involve various guest speakers.

The majority of the course content will be delivered via in-class presentations and discussions. A portion of the material is represented in the assigned textbook. The ancillary material has been selected to expand your exposure to various aspects of technology analysis and design management. Copies of the PowerPoint slides and case studies will be available to you by visiting: umdrive.memphis.edu/rposton/. The slides are customized for the course, but also subject to change as the delivery of the course changes to meet classroom timing needs.
Course Evaluation will be based on:

- Class Participation 20 points
- Analysis & Design Management Project 40 points
- Analysis & Design Innovation Exercise 40 points
- Class Debate 20 points
- Mid-Term and Final Exam 80 points

**Weekly Lecture Topic and Associated Readings:**

The format for Weekly Lecture Topic and Associated Readings is the lecture will entail a 60-90 minute talk on that week’s topic by the instructor. This will be followed by team presentations covering assigned papers (see schedule below) which are located online for your to download. Please remember to include 5 minutes of Q&A, that means the presentation needs to be approximately 15 minutes long (try to keep to 5-7 slides). The presentations should include, but are not limited to, slides covering 1. The paper topics (1 slide), 2. What you learned from reading the papers or main messages the paper is trying to deliver (1-3 slides), 3. How this applies or how it could change the way you think about your job/career/workplaces (1-2 slides), here you are welcome to let one person or multiple people share their ideas given his/her own situation, 4. Finally, answer the question, “how should an IT or business manager use the lessons learned to analyze and design new business processes”? All materials presented during class time are subject to being on an exam.

**Analysis & Design Management Project:**

A project will be performed by working in groups of four (4) students that will involve interviewing and IT professional of a local business organization to put together a 10-page project report plus a presentation outlining the following: organizational structure of the IT analysis and design function; roles of the IT management sub-functions in delivering analysis and design of IT projects; organizational processes used for IT planning and control of these projects; strategic and day-to-day challenges facing IT management with respect to analysis and design of IT projects; relationship between IS and functional business managers; and other managerial aspects of the IT management role in the organization as it relates to analysis and design of IT projects. Project presentations will be scheduled during class time.

**Analysis & Design Innovation Exercise:**

This will involve working in teams of four (4) to understand how to improve a business process using any SAD modeling tool or the free open source modeling tool at: http://www.modelsphere.org/. You will select a business process as a team which can be a process here at the University or at a real business then model that process to look for innovative opportunities for improvements. The idea will be to understand the nature and level of technology innovation as well as the role of business process analysis and design in organizations. Put together a 5-page exercise report plus a presentation for class. Project presentations will be scheduled during class time.
The sky is the limit. Pick a business process at your company or at the university and analyze it along the lines of if you were to report to the CIO what improvements could be made keeping in mind the business benefits (ROI, etc.). I don’t think you need to interview anyone unless that will help you. Answer questions like, but you are not limited to:

- What does the process look like with the modeling tool, e.g., using the free tool downloaded from http://www.modelsphere.org/
- What improvements could be made?
- What will it take to succeed in delivering a new innovative business process in the organization and in the marketplace?
- What talents, people, processes, resources, etc. will be needed?
- Is the current economic environment supportive of such an event?
- How would you get started? Who would you contact? What would you ask for?

Class Debate:
This will involve a formal Socratic-styled debate in class about various topics regarding advanced systems analysis.

Mid-Term and Final Exams:
There will be two exams during the semester. The format of the exam will be discussed in class prior to the exam and the content will focus on the textbook chapters and guest speakers.

Academic Misconduct
The University of Memphis has clear codes regarding cheating and classroom misconduct. Students are urged to refer to the Student Handbook section on academic misconduct for a discussion of these codes. Plagiarism is a form of misconduct. To ensure full credit for your work, make sure that all work is in your own words and cite your sources where references to external materials are deemed important.

Semester Schedule – This is subject to change depending on the progress we make during the early classes and the schedules of guest speakers.
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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Notes</th>
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<tr>
<td>Feb 9</td>
<td>Guests Speaker—Joel Neely from FedEx</td>
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<td></td>
<td>Catch up on Ch 1-4</td>
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<td>Feb 16</td>
<td>Ch. 5 Process Modeling Using UML</td>
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<td>In Class Team Work</td>
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<td>Feb 23</td>
<td>Debates—Debate</td>
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<td>Ch. 6. Process Modeling Using Event-Driven Process Chains</td>
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<td>Mar 2</td>
<td>Team Presentations for Analysis &amp; Design Innovation Exercise</td>
<td>Analysis &amp; Design Innovation Exercise</td>
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<td>Mar 8-10</td>
<td>BREAK—No Class</td>
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<td>Mar 16</td>
<td>Ch. 7 Process Modeling Using Petri nets</td>
<td>3 Questions for next speaker</td>
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<td>Guests Speaker—Mario Jones from FedEx</td>
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<td>Mar 23</td>
<td>Ch. 8 Patterns of Process Modeling</td>
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<td>Mar 30</td>
<td>Midterm—Ch. 1-8</td>
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<td>Apr 6</td>
<td>Ch. 9 Process Design and Redesign</td>
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<td>Ch. 10 Process Mining</td>
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<td>Apr 13</td>
<td>Ch. 11 Transactional Business Processes</td>
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<td>In Class Team Work</td>
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<td>Apr 20</td>
<td>Presentation Preparation</td>
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<td>Apr 27</td>
<td>Team Presentations Analysis &amp; Design Management Project</td>
<td>Analysis &amp; Design Management Project</td>
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<td>May 2</td>
<td>Final Exam 7:00-9:00p Ch. 9-11</td>
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