

The University of Texas at Tyler  
Bachelor of Science in Computer Information Systems

## Syllabus

<b>Course Number:</b>	COSC 3375
<b>Course Title:</b>	Analysis and Logical Design
<b>Course Description:</b>	This course introduces the systems development process. Topics covered include structured and object-oriented analysis and design, use of modeling tools and the methodological life cycle and project management. It includes the study of interpersonal skill development with clients, users, team members, and others associated with the development, operation and maintenance of systems.
<b>Pre-requisites:</b>	COSC 2325
<b>Credits:</b>	3
<b>Text(s):</b>	<i>Systems Analysis and Design</i> , Fifth Edition Shelly Cashman Rosenblatt (ISBN: 0-7895-6649-4)
<b>Languages Used: (If applicable)</b>	
<b>Topics:</b>	<ul style="list-style-type: none"> <li>• Introduction to systems analysis and design including the systems development life cycle (SDLC) and the role of systems analyst in support organizational needs.</li> <li>• Introduction to systems analysis and design.</li> <li>• Analyzing the business case.</li> <li>• Requirements modeling.</li> <li>• Enterprise modeling.</li> <li>• Development strategies.</li> <li>• Interface data, input, and output design.</li> <li>• System architecture.</li> <li>• System implementation.</li> <li>• Systems operation.</li> <li>• Systems analyst's and software engineer's code of professional ethics.</li> </ul>
<b>Additional Materials:</b>	<ul style="list-style-type: none"> <li>• On occasion, if some concept or technique is difficult to understand, handouts are provided to enhance and extend material presented in class.</li> <li>• Parts of the lecture material include concepts not covered in the textbook, such as computer ethics, specific needs applicable to the business world, and quality assurance.</li> </ul>

<b>Evaluation Method: (only items in dark print apply)</b>	
<b>1. Examination/Quiz</b>	<b>2. Homework</b>
<b>3. Paper/Report</b>	<b>4. Computer Program</b>
5. Project	6. Presentation
7. Class Participation	8. Peer Review
9.	10.

<b>Course Objectives<sup>1</sup>: By the end of this course students are expected to:</b>	
1.	To specify the starting point of systems analysis including strategic systems planning, review of systems requests, risk assessment, feasibility analysis, and steps in performing preliminary systems investigation. [1,2,4]
2.	To perform requirements modeling and fact-finding techniques. [1,2,3,4]
3.	To apply basic approaches to the development of application software. [1,3]
4.	To identify current IT issues and major trends in systems development. [1,2,3,4]
5.	To describe team-based modeling methods, including JAD and RAD. [1,2,3,4]
6.	To carry out enterprise modeling using entity relationship diagrams and data flow diagrams. [1,2,3,4]
7.	To explain the transition from the analysis phase to the design phase. [1,2,3,4]
8.	To implement data modeling and database design. [1,2,3,4]
9.	To perform user interface, input, and output design. [1,2,3,4]
10.	To describe systems implementation procedures including structure charts, system testing, user training, data conversion, changeover methods, and post-implementation evaluation. [1,2,5]
11.	To explain systems operation, management, and maintenance. [1,2]
12.	To discuss the role of ethics in the information systems profession. [4]

<b>Relationship to Program Outcomes: (only items in dark print apply )<sup>2</sup></b>
<b>This course supports the following Computer Information Systems Program Outcomes, which state that our students at the time of graduation are expected to:</b>
<b>1. Be prepared to contribute immediately as information systems professionals. [1-12]</b>
<b>2. Be able to design and implement information systems that satisfy user requirements. [1-12]</b>
<b>3. Demonstrate effective written, visual, and oral communication skills[4,5,6,7,8,9,10,11]</b>
<b>4. Understand the global context in which computer information systems are practiced including:</b>
<b>a. Contemporary issues related to business and technology</b>
<b>b. The impact of computers on society</b>
<b>c. The role of ethics in the practice of information systems profession. [10,11,12]</b>
<b>5. Be able to contribute effectively as members of systems development teams. [1-12]</b>
<b>6. Recognize the need to pursue continued learning throughout their professional careers. [1-12]</b>
<sup>2</sup> Numbers in brackets refer to course objective(s) that address the Program Outcome.

Prepared By: John Burch	Date: 11/10/2004
	Revised: