SYLLABUS

MCIS 6310 -- Analysis, Modeling and Design

Class and Faculty Information

Course Number: MCIS 6310
Course Title: Analysis, Modeling and Design
Instructor: Glyn E. Haynie
Semester Dates: January 9 – April 25, 2003
Meeting Time: 6:00 – 8:50 PM (M)
Location: PEC Room
Phone: 336-0475
E-mail: glynh@admin.stedwards.edu
Office Hours: By appointment through e-mail or personal request

Class Requirements / Expectations

- Prerequisite: ISMG 6306, Database Systems

Students will be expected to learn new software, case tools, and apply that knowledge to this course.

Description

This course introduces students to the system development cycle, system analysis and design techniques, requirements needs identification and collection, process modeling, data modeling, design of an interface and data management. Students will develop an understanding of system implementation, operation and maintenance. Software and system quality metrics and globalization issues will also be covered.

Objectives

The main goal is to provide the student with an understanding of the concepts of system design and analysis. Emphasis will be on evaluation methods for software design and analysis using a case tool with the Unified Modeling Language.

At the conclusion of this course the students will be able to:

- Identify and describe the components of information systems.
- Define and describe the purposes and values of systems analysis.
- Describe the stages in the system life cycle.
- Describe the use of process and techniques in IT planning.
- Describe the role of software design in the systems development process.
- Design a relational database and produce a data dictionary.
- Identify and document user requirements to include user input and output.
- Use a case tool to design and model a software application using UML
- Write a design document with all the essential design elements for a software application.
- Design, model and formally explain a complete software system.

Textbook

Systems Analysis and Design, by Kenneth & Julie Kendall, 2002, Prentice-Hall, 5th Edition.

- **Note:** Textbooks change occasionally. Please confirm before purchasing.

Recommend Books and other References:
Terry Quatrani, Visual Modeling With Rational Rose and UML, Addison Wesley
Excellent book on using UML and visual modeling techniques.

Web site Rational Rose http://www.rational.com/uml/index.jsp
Excellent source for modeling software and UML. This site has tutorials and information on using UML.

Web site Visual Paradigm http://www.visual-paradigm.com/
Excellent source for modeling software and UML. This site has tutorials and information on using UML.

Course Organization / Structure / Rules / Policies

Classes will be devoted to covering material from the prescribed text and highlight key points in the textbook and supplementary materials. The course will consist of a combination of discussion, case studies and student project/presentations. It is assumed that students come to class having read the chapter(s) of the textbook to discuss. The grading of the course will be based on assignments, participation, a student project and presentation, and two exams.

Attendance: The classroom portion of this course is primarily group discussion of materials and case studies. You are expected to come to class having read the weeks materials and prepared for group discussion. Part of your grade is participation. To this end, it is important that you be in class, and that you be prepared. If you know that you are going to miss class due to work-related travel or other requirements, you are expected to notify the instructor beforehand.

Academic Honesty: Academic honesty is required from all students. Any academic dishonesty will be dealt with in the strictest manner possible according the guidelines in the St. Edwards University handbook.

Grading and Grades

Make-up examinations must be scheduled prior to the date of the examination. Assignments are due on the due date. Assignments *will not* be accepted late. The final grade will be determined as follows:

Examination 1	25%	A = 100 - 90
Examination 2	25%	B = 89 - 80
System Proposal	25%	C = 79 – 70

System Design	25%	D = 69 – 60 F = below 60

Details of Grade Elements

Both examinations will include true/false, multiple choice, fill in the blank and essay questions. The examinations will cover the material presented each week from the text, instructor presentation and student discussion.

Special Circumstances

If you need accommodation for a disability, provide the instructor with documentation from Student Disability Services, www.stedwards.edu/aps/sds.htm, 448-8557, 448-8660.

Weekly Class Activity

Week	Class/Discussion/Reading Assignments	
Jan 13	Class Policies: Introduction to Course, Description of Examinations Assign and discuss project Assuming the Role of the Systems Analyst	 Chapter 1
Jan 20	Holiday	
Jan 27	Object-Oriented Systems Analysis and Design and UML	 Chapter 22
Feb 3	Determining Feasibility and Managing Analysis and Design Activities	 Chapter 3
Feb 10	Interviewing Prototyping and Rapid Application Development	Chapter 5 Chapter 8
Feb 17	Using Data Flow Diagrams Analyzing Systems using Data Dictionaries	Chapter 9 Chapter 10
Feb 24	Examination 1 Chapters 1, 22, 3, 5, 8, 9 and 10 System Proposal Due	
Mar 3	System Proposal Presentation Designing Effective Output	 Chapter 15
Mar 10	Spring Break	

Mar 17	Designing Effective Input	Chapter 16
Mar 24	Designing Databases	Chapter 17
Mar 31	Designing User Interfaces	Chapter 18
	Designing Accurate Data-Entry Procedures	Chapter 19
Apr 7	Examination 2 Chapters 15, 16, 17, 18 and 19 Software Application Design Due	
Apr 14	Software Application Design Presentation	
Apr 21	Software Application Design Presentation Review Examination 2 Review Group Project and Presentation Student Survey	