School of Management

MIS 330, Systems Analysis and Design, 3 Credits

1. General Course Information

Location: Science and Technology I Room 206
Time: Tuesdays 4:30-7:10 PM
Course Homepage: Blackboard CE6 (see Course Materials section below)
Prerequisites: 'C' or higher in MIS 301 and MIS 310.

2. Instructor Information

Professor: Jesse Bockstedt
Email: jbockste@gmu.edu
Office: 150 Enterprise Hall
Office Phone: (703) 993-1788
Office Hours: Tuesdays 2:00-3:00 PM, or by appointment

3. Course Objectives

Information systems are ubiquitous. Today's organizations and the global economy depend on information systems in all aspects of operation. Properly designed and implemented systems can provide firms with streamlined business processes and a competitive advantage, and poorly conceived systems can result in severe operational failures. Understanding systems analysis and design methods is a necessary skill for contemporary business analysts, managers, software engineers, and system users. MIS 330, Systems Analysis and Design, provides students with the foundations for effectively using modern systems analysis and design tools and methodologies for developing modern software and applications. The topics covered in MIS 330 include:

- Systems planning and feasibility analysis
- Project management
- Use case analysis and system requirements
- Data modeling and process modeling
- Object-oriented analysis using UML 2.0
- Application architecture and database design
- Prototyping and user interface design
- Systems implementation and maintenance.

MIS 330 uses a combination of learning approaches to provide students with a comprehensive view of the course material. The course will incorporate in-class discussions, lectures, demonstrations and hands-on use of methods, and a practical systems analysis and design project.

4. Course Materials

Blackboard CE6: This course will use the *Blackboard Learning System CE6* to deliver course materials such as lecture notes, announcements, online discussions, and assignments. You can access the course's Blackboard site by going to courses.gmu.edu

and logging in with your GMU account. From your main Blackboard page, follow the link to the *MIS 330* course to access the course site. On the first day of class I will provide a brief tour of the MIS 330 Blackboard site and discuss how it will be used throughout the course. For help or support using the Blackboard system you can go to irc.gmu.edu/ce6transition, contact course@gmu.edu, or call ITU Support at (703) 993 - 8870.

Required Text Book:
Systems Analysis and Design, by Dennis, Wixom, and Roth, 3rd Edition (2006), Wiley, ISBN: 978-0-471-72257-1.

Optional Reference Book (not required, but a good UML reference):
UML 2.0 in a Nutshell, by Pilone and Pitman, 1st Edition (2005), O'Reilly, ISBN: 0-596-00795-7.

Software:
Microsoft Visio and Access are highly recommended for the systems analysis and design tasks of your group project. If you don't already have this software, Microsoft Visio 2007 and Access 2007 are available free of charge to registered School of Management (SOM) students through the Microsoft Developer Network (MSDN) agreement. During the first week of the semester you should receive an email from the SOM IT support group providing you with instructions for downloading the software. If you do not have a personal computer, MS Visio and Access will also be available in the George Mason student computer labs (classtech.gmu.edu/computerlabs.cfm). You will also likely need to use Microsoft Word, Excel, PowerPoint, and possibly Project for your group work. George Mason and the School of Management use Microsoft Office 2007; if you are new to MS Office 2007, you can access online tutorials through the website transition.gmu.edu (click Tutorials on the left-hand menu). Additional IT related training is available free to George Mason University students; see ITTraining.gmu.edu for more information.

5. Course Schedule

Week	Date	Topic	Readings	Deliverables Due
1	1/27	Class Introduction, Introduction to Systems Analysis and Design, Class Project Overview	Chapter 1	
2	2/3	Project Management, Feasibility Analysis,	Chapters 2 & 3	*Project Team and Topic*
3	2/10	***Quiz 1*** Requirements Discovery	Chapter 4	
4	2/17	Modeling System Requirements with Use Cases and User Stories	Chapter 5	
5	2/24	***Quiz 2*** Process modeling	Chapter 6	*Feasibility Report*
6	3/3	Data Modeling	Chapter 7	
7	3/10	***No Class Spring Break***		
8	3/17	***Exam 1***		

9	3/24	Architecture Design	Chapters 8 & 9	
10	3/31	User Interface Design	Chapter 10	
11	4/7	***Quiz 3*** Program Design	Chapter 11	*Analysis Report*
12	4/14	Data Storage Design	Chapter 12	
13	4/21	***Quiz 4*** Implementation and Transition	Chapters 13 & 14	
14	4/28	Object Oriented Analysis and Design	Chapter 15	
15	5/5	Poster Presentations		*Project Poster & Design Report*
16	5/12	Exam 2 (Final Exam Period)		

Note: Course schedule is subject to change.

6. Grading and Assessment

Exam 1: 30% (individual assessment)
Exam 2: 30% (individual assessment)
In Class Quizzes: 10%; 4 @ 2.5% each (individual assessment)
Group Project: 30% (group assessment)
Total: 100%

Exams: There will be two (2) exams, each worth 30% of your course grade. Each exam will cover (approximately) one half of the course material (i.e., the second exam is not cumulative). Course readings, lecture notes, and in-class discussions are fair-game for the exams. Exams will be held in class, at the beginning of class, on the dates designated in the course schedule. Exams will be closed book and closed notes. Exams are individual activities.

Quizzes: There will be four (4) in-class quizzes throughout the semester. Each quiz will be worth 2.5% of your course grade, totaling 10%. Quizzes will be held at the beginning of class on the dates designated on the course schedule. Quizzes are individual activities. Quizzes will be closed book and closed notes.

Group Project: There will be a group systems analysis and design project worth 30% of your course grade. The project will consist of multiple deliverables, including: (1) team and topic memo, (2) problem analysis and feasibility report, (3) systems analysis report, (4) systems design and implementation report, and (5) a project poster. Deliverables are due at the beginning of class on the days designated in the course schedule. The last class period is designated for a poster session where groups will present posters that outline their project and the system they have designed. More details on the project deliverable requirements will be provided on the Blackboard site throughout the semester. Group members will complete peer evaluations, which may be used to adjust project grades for individuals.

Grading Scale:

Grade	Percentage
A	greater than 93%
A-	greater than 90% but less than 93%
B+	greater than 87% but less than 90%
B	greater than 83% but less than 87%
B-	greater than 80% but less than 83%
C+	greater than 75% but less than 80%
C	greater than 70% but less than 75%
D	greater than 60% but less than 70%
F	less than 60%

7. Student Responsibilities

Students are expected to attend class each week and to participate in class discussions and exercises. Students are expected to complete assignments on time and attend course quizzes and exams. Make-up quizzes and exams will not be provided. Students are expected to use their gmu.edu email accounts for communication with the instructor and other students in the class. All emails from the instructor will be sent to your gmu.edu email addresses. Students are expected to contribute equally to all group project work. Students are expected to respect their instructor and fellow classmates, both in and out of the classroom environment. Students are expected to turn off or silence their mobile phones during class time (this also means no texting☺).

8. Learning Goals

Learning goals for the Undergraduate Programs

1. Our students will be competent in their discipline.
2. Our students will be aware of the uses of technology in business.
3. Our students will be effective communicators.
4. Our students will have an interdisciplinary perspective.
5. Our students will be knowledgeable about global business and trade.
6. Our students will recognize the importance of ethical decisions.
7. Our students will be knowledgeable about the legal environment of business.
8. Our students will be knowledgeable about team dynamics and the characteristics of effective teams.
9. Our students will understand the value of diversity and the importance of managing diversity in the context of business.
10. Our students will be critical thinkers.

Learning Goals of the Information Systems and Operations Management Program

1. **Apply knowledge of information technology and business functions to understand its application in assessing, designing and improving business processes.**
2. Develop data organization, storage and processing solutions to support organizational needs for information management. They will also have the option of developing skills in the area of supporting decision making through business intelligence solutions.

3. Use knowledge of computer networks as part of the IT solutions for improving business processes. They will also have option of developing more advanced skills in the areas of network and security.
4. Effectively manage information technology projects.
5. **Understand the overall systems development life cycle and be able to recommend IT system solutions accordingly. They will also have option of learning appropriate development tools to develop prototype of IT solutions for business management.**

9. Honor Code Statement

Cheating and Academic Dishonesty: All students are responsible for knowing and following the GMU Honor Code Statement (honorcode.gmu.edu). Students will be given a 0 on any assignment where the University Guidelines for Academic Honesty are not followed. This includes project work and exams. In the event of a violation of the GMU Honor Code, the violating student will be reported to the GMU Honor Committee.

10. Learning Disabilities

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474, at the beginning of the semester. All academic accommodations must be arranged through the DRC.