



Department: E	Business Administration	Program: MBA		
Course Name	Information Systems Analysis	& Design (ISAD)	Course Code	MIS 622
Pre-requisite	Not Applicable		Credit Hours	3

Brief Description

This course aims to provide students with the basics of system analysis and design of information systems in business organizations.

Course Objectives

After completion of this course the student will be able to:

- ↘ Identify system requirements.
- **Translate the requirements into an information system model.**
- **Use analysis tools and design information systems.**
- Apply the business data management concepts, both theoretical and practical, using ERD Modeling.
- Solution Create effective and optimized methods for building databases in business.
- **Use the corresponding software systems and computer resources to build databases.**

Course Learning Outcomes

- Distinguish between concepts, principles, and theories of ISAD
- Apply the concepts, principles, and theories of ISAD in different business situations
- **Demonstrate written communication skills**
- ▶ Have oral communication skills
- > Have skills of using ISAD applications in business administration
- > Have scientific research skills in the field ISAD
- > Have the skills of critical thinking and analysis in the fields of ISAD
- > Have the skills in strategic thinking and finding solutions in the context of ISAD
- Solution Believe, and practice sustainability in the context of ISAD
- > Have the skills of leadership, teamwork, and decision making in ISAD
- > Have the ability to distinguish between ethical issues in ISAD
- > Have the competence of social responsibility in the context of ISAD
- **** Have the competence to deal with cultural diversity in the context of ISAD

Course Topics

- Systems development environment and life cycle (Waterfall and Spiral)
- Activation of each SDLC (Phase) planning analysis phase and requirements.
- Developing and building information systems using CASE tools
- > The mechanism of data flow diagrams
- **Solution** Building the baseline project structuring system and process requirements
- Data flow diagramming mechanics and examples (Decision tables Data dictionary UMI introduction)
- **** Traditional processing systems





- The database environment
- Database management system (DBMS)
- **>** Data duplication and data program dependence
- Sentity relationship diagram
- Transforming EER to relations
- Normalization
- **Defining a database in SQL environment**
- > Processing and requests on single tables
- Natural, outer and union joins.

Text Book

Hoffer, J. A., George, J. F. and Valacich, J. S. (2016). Modern Systems Analysis and Design. Eighth Edition, Global Edition. USA.

Additional References

- Hoffer, J. A., Venkataraman, R., and Topi, H. 2015. Modern Database Management, London: Pearson Education.
- Pratt, P. J. and Adamsky, J. J. (2014). Concepts of Database Management. 7th edition. Boston, Massachusetts, Cengage Learning publisher.

Online Resources

None

Course Outline

course	outilité		
Week	Hours	Topics	Remarks
1	3	Course overview: The system development environment, the	
		systems development life cycle (Waterfall). Activation of each	
		SDLC (Phase) planning analysis phase	
2	3	Course overview: The system development environment, the	
		systems development life cycle (Waterfall). Activation of each	
		SDLC (Phase) planning analysis phase	
3	3	Analysis and design implementation. Maintenance use.	
		Developing information systems and the system development life	
		cycle (Spiral). Activation of each SDLC (Phase) Requirement	
4	3	Implementation maintenance. Develop and build information	
		systems using CASE tools	
5	3	The mechanism of data flow diagrams. Initiating and planning	
		system development. Project. Assessing Project Feasibility	
6	3	Building the baseline project structuring system. Process	
		Requirements	
		Data flow diagramming mechanics. Identify the symbols used in	
		the data flow	
7	3	Examples of DFD. Decision tables. Data dictionary. UMl	
		Introduction	





8	3	Traditional processing systems. The database environment.	
		Database management system (DBMS). Data duplication and data	
		program dependence	
9	3	Entity relationship model. Entity and attribute modeling.	
		Relationship degree and relationship modeling. Multiple	
		relationships. Representing supertypes and subtypes.	
		Specialization and generalization	
10	3	Midterm Exam	
11	3	Constraints on supertype-subtype relationships- subtype	
		discriminators. Transforming EER to relations week entity.	
		Associative entity introduction to normalization and normalization	
		steps	
12	3	Defining a Database in SQL Environment- Inserting, Updating	
		and Deleting Data. Internal schema definition in RDBMSs.	
13	3	Processing and requests on single tables; Natural join. Outer join.	
		Union join; Processing and requests on single tables - Natural join	
14	3	Processing and requests on Outer join - Union join	
15	3	Presentations	

Measurement and Assessment Tools														
			Knowledge	Skills Values						s				
Assessment Tools	Grades	Week	Identify and apply	Written	Oral	Information Technology	Research	Critical thinking	Strategic thinking	Sustainability	Leadership	Ethics	Corporate Social responsibility	Cultural diversity
Midterm Exam	20	9	Х											
Case Study	10	12		Х				Х	Х	Х	Х	Х	Х	Х
Project	20	15		Х		Х	Х	Х	Х	Х	Х	Х	Х	Х
Presentation	10	15			X	X								
Final Exam	40	TBD	X											
Total	100													

Approved by Department Chair	Date of Approval





Additional Information: Updated every Semester by Course Instructor			
Course Instructor			
Department			
Phone No.			
Extension No			
Email			