

CPIS-351 Syllabus

Catalog Description

CPIS-351 IS Analysis and Architecture Design

Credit: 3 (Theory: 3, Lab: 2, Practical: 0)

Prerequisite: CPIS-250 , BUS-232

Classification: Department Required

The objective of this course is to introduce methods used in IS analysis in order to identify and characterize needs and to automate and create computer systems for them. The automated systems incorporate several technologies, and this course studies the way making optimum use of such systems for the users' service. The course emphasizes on the design phase activities and also presents design using structural and object-oriented techniques. Topics include system architectures design, traditional approach to design, object-oriented approach to design for applications, designing files and database, designing the user interface, designing the system interface and prototyping, controls and security, implementation, and support issues.

Class Schedule

Lab/Tutorial 90 minutes 1 times/week

Meet 50 minutes 3 times/week or 80 minutes 2 times/week

Textbook

John Satzinger, Robert Jackson, Stephen D. Burd, "Systems Analysis and Design in a Changing World", Cengage Learning; 5 edition (2008-03-28)

ISBN-13 9781423902287

ISBN-10 1423902289

Grade Distribution

Week	Assessment	Grade %
4	Graded Lab Work 1	2.5
4	Homework Assignments 1	5
6	Graded Lab Work 2	2.5
6	Exam 1	15
8	Graded Lab Work 3	2.5
10	Graded Lab Work 4	2.5
12	Exam 2	15
12	Homework Assignments 2	5
14	Group Project	20
16	Comprehensive Final Exam	30

Last Articulated

December 21, 2017

Relationship to Student Outcomes

a	b	c	d	e	f	g	h	i	j
	x	x		x				x	x

Course Learning Outcomes (CLO)

By completion of the course the students should be able to

1. Describe the major components, levels of design and design phase activities (b)
2. Describe the steps involved in the traditional approach to designing the application architecture (b)
3. **Design the iterative process of object oriented system (design steps) (b)**
4. **Develop relational and object-oriented database management system clearly giving their differences similarities (b)**
5. **Construct the user-computer interaction scenarios as dialogs (b)**
6. Describe the difference between windows forms and browser forms and the key principles used in web design and define system inputs and outputs (c)
7. **Explain the importance of integrity and security controls for inputs, outputs, data and processing (e)**
8. Describe implementations and support activities (j)
9. Choose an appropriate approach to program development (.order of implementation) (i)
10. **Describe various types of software tests, versioning and explain how and why each is used (c)**
11. List various approaches to data conversion and system installation and describe the advantages and disadvantages of each (i)
12. Explain the foundations for the adaptive methodologies to development (i)
13. List and describe the features of the unified process system development methodology and extreme programming (i)

Coordinator(s)

Dr. Alaa Khadidos, Associate Professor

CPIS-351 Syllabus

Topics Coverage Durations

Topics	Weeks
Moving to Design, Elements of Systems Design	1
The Object-Oriented approach to Design: Use Case Realization	6
Designing Databases	1
Designing User Interface	1
Designing System Interface Controls and Security	1
Making the system Operational	2
Current Trend in System Development	2