

# **Faculty of Computing and Information Technology**

Department of Information Systems



Spring 2018

# **CPIS-360 Syllabus**

# **Catalog Description**

CPIS-360 Advanced Information Systems Technologies

**Credit:** 3 (Theory: 3, Lab: 1, Practical: 2)

**Prerequisite:** CPIS-240 **Classification:** Elective

The objective of this course is to study the basic concepts of using advanced technologies in building and developing recent Information Systems. Topics include object-oriented databases, distributed databases, data warehouses, and data mining techniques.

#### **Class Schedule**

Lab/Tutorial 90 minutes 1 times/week

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

### **Textbook**

Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer Widom, , "Database Systems", Prentice Hall;(2009)

**ISBN-13** 9780131873254 **ISBN-10** 0131873253

# **Grade Distribution**

Week Assessment Grade %

# **Topics Coverage Durations**

Topics	Weeks				
Object-oriented databases; how to design and					
implement them.					
Distributed databases; how to design and implement					
them.					
Data warehouses; how to design and build them.	2				
Data warehouses architecture and infrastructure.	2				
Data Mining techniques from data warehouses.	2				
Analysis methods used in data mining and extraction of	2				
hidden information significant for decision-making.					
Data warehouses Structured Query Language (SQL)	2				
and the classification, forecasting and relational rules of					
data mining.					

#### **Last Articulated**

## **Relationship to Student Outcomes**

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

### **Course Learning Outcomes (CLO)**

By completion of the course the students should be able to

- 1. To understand the concepts of designing and developing object-oriented databases. ()
- 2. To understand the concepts of designing and developing distributed databases. ()
- 3. To be able to design and develop data warehouses. ()
- 4. To be able to determine the necessary infrastructure for building data warehouses and select the appropriate structure. ()
- To have the necessary skills to carry out data mining, pattern extraction and handing in information to decisionmakers. ()
- 6. To be familiar with the Structured Query Language (SQL), and the way of carrying out queries. ()
- 7. To be able to select the appropriate technology for a certain system into practice. ()

### **Coordinator(s)**