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.	2
Distributed databases; how to design and implement them.	2
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 hidden information significant for decision-making.	2
Data warehouses Structured Query Language (SQL) and the classification, forecasting and relational rules of data mining.	2

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. ()
5. To have the necessary skills to carry out data mining, pattern extraction and handing in information to decision-makers. ()
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)