



CEBU DOCTORS' UNIVERSITY

Graduate School

Instructor: Prof. Raul R. Diez, DCS, DODT

Computer Cognate:

Technology Essentials I

Syllabus

Course Description

This class includes broad coverage of technology concepts and trends underlying current and future developments in information technology, and fundamental principles for the effective use of computer-based information systems. There will be a special emphasis on networks and distributed computing, including the World Wide Web. Other topics include: hardware and operating systems, software development tools and processes, relational databases, security and cryptography, enterprise applications, and electronic commerce. Hands-on exposure to Web, database, and graphical user interface (GUI) tools.

This course is intended for students with little or no background in computer technology. Students with extensive education or work experience in computer technology should consider taking a more advanced course.

Readings

The course material includes all the required readings (articles) to be covered in class. It also includes non-Web optional readings, which offer supplementary material on the topics discussed, except for optional readings that are available via the Web. There are also some optional textbooks (that are not included in the course reader) and recommended Web material.

Evaluation

We view this course as a cooperative learning experience and expect students to engage the topics provided as an opportunity to gain hands-on experience with some of the tools and technologies covered. They include (a) creating a personal home page and (b) working with a Microsoft® Access database. All assignments are to be received by the instructor before class on the due date.

Required Software

Macromedia® Dreamweaver and Microsoft® Frontpage are an optional requirements for Assignment 1. Microsoft® Access is required for Assignment 2. Microsoft® Access is part of Microsoft® Office Professional

Recommended Web Materials

The PC Webopedia is a Web site that serves as an encyclopedia of Information Technology terms. It provides excellent explanations of many Information Technology terms, together with links to additional web pages related to them. For many of the lectures, the course Web page contains pointers to the relevant category of the PC Webopedia. We strongly encourage you to use this valuable resource to clarify unanswered questions and to go beyond the material covered in class, according to your own personal interests.

Optional Textbooks

There are three optional textbooks.

White, Ron, et. al. *How Computers Work*. 7th ed. Indianapolis, IN: Que Publishing. ISBN: 0789730332.

Gralla, Preston, et. al. *How the Internet Works*. 7th ed. Indianapolis, IN: Que Publishing. ISBN: 0789729733.

Good introductory texts on the internals of computer hardware, system software and the Internet. Recommended if you don't have a background in science or engineering.

Viescas, John L. *Running Microsoft® Access 2000*. Redmond, WA: Microsoft® Press, 1999. ISBN: 1572319348.

One of the best and most detailed "bibles" on Microsoft® Access. The coverage is way beyond what will be covered in this course. This is an excellent reference book for students who are interested in becoming Microsoft® Access experts.

Calendar

LEC #	TOPICS	KEY DATES
1.	Introduction: Fundamentals of Computing I	
The Technology		
2.	Fundamentals of Computing II	Problem set 1 Out - Build a simple website
3.	Networks I	
4.	Networks II	
5.	Programming Languages	
6.	Relational Databases	
7.	Introduction to Microsoft® Access	Problem set 2 out - Microsoft® Access
8.	Web Technologies Fundamentals	Problem set 1 due
9.	Computer Security I: Encryption and Digital Signatures	
Application of Technology		
10.	"Under the Hood" of Commercial Website	
11.	Managing Software Development	Problem set 2 due
12.	Enterprise Systems	
13.	Business Intelligence: Data Mining and Data Warehousing	
14.	Emerging Technologies: Course Wrap-up	
15.	Final Exam	

Note: December 2005 – Topics 1 to 4; January 2006 – Topics 5 to 8; February 2006 – Topics 9-12; March 2006 – Topics 13 to 14. Final Exam will be on the last Saturday of March 2006.