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|--------------------------------|---|---------------------------------|
| <b>Course Title</b>            | : | Internet Technology             |
| <b>Course Code</b>             | : | CDS215/CDS2215                  |
| <b>No of Credits/Semester</b>  | : | 3                               |
| <b>Mode of Tuition</b>         | : | Sectional Approach              |
| <b>Class Contact Hours</b>     | : | 3 hours per week                |
| <b>Category in Major Prog.</b> | : | Business Elective/Free Elective |
| <b>Prerequisite</b>            | : | Nil                             |

### **Brief Course Description**

This course will examine the various technologies used in Internet. Students will learn the advanced operation of PC and Internet/WWW, and are expected to be able to develop web page using web-authoring tool and programming languages. The application of Internet technologies in different business applications, such as E-commerce, database and Intranet/Extranet, will be examined.

The course does not specify any pre-requisite but students should have acquired basic computing and web page creation skill.

### **Aims**

The aim of the course is to introduce various kinds of technologies that are currently used in the Internet/WWW. The course exploits the different tools and techniques that are common to users and developer.

### **Learning Outcomes**

On completion of this course, students will be able to:

1. Have a clear understanding of the Internet: the evolution of the Internet and the Hong Kong Internet Exchange (HKIX).
2. Develop business web pages using XHTML and to make enhancement by script languages such as JavaScript, image-map, etc.
3. Use advanced web authoring software to aid the development of webpage as well as maintenance of a web site.
4. Apply various Internet technologies in different business applications legally and ethically.

### **Measurement of Learning Outcomes**

1. Assignments will require students to demonstrate their XHTML skill through the development and maintenance of their homepages. Students would need to develop the web pages with their own design and observe the copyright issues legally and ethically. Besides, scripting language would form part of the assignments. Students will be given different tasks to be completed by scripting language. They expected to use scripting language to enhance the interactivity of web pages.
2. In addition to assignments, a test is conducted to ensure the students have the necessary knowledge on the topics covered.
3. Students learn better through interactive exercises, class participation/class exercise would increase students' interest in the course and bring out any problem that they are facing.
4. Final examination will take the form of tradition, written examination and practical in computer laboratory. The written portion will assess the theory/knowledge students learnt in this course. The practical part requires students to demonstrate their practical skill in a controlled environment. This would better aid the assessment of students' practical skill in addition to assignments and class exercise.

## **Indicative Content**

### Overview of the Internet

Development and infrastructure of Internet, Hong Kong Internet Exchange (HKIX)  
Internet Resources : email, ftp and newsgroup

### XHTML

Advanced Hypertext Markup Language (XHTML)

Use of advanced web authoring tools such as Dreamweaver, re-defining of tags, behaviors

Use of Cascade Style Sheet : inline and external

### Scripting Languages

JavaScript : input/out through HTML, control structures, functions, objects, event handlers

Difference from JAVA

Other Common Gateway Interface (CGI) : Perl, ASP, JSP, PHP

### Web Page enhancement

Animation with Flash : motion/shape tweening, motion with motion guide, mask, actionscript.

Internet Security : securing a web page, identification/authentication, Secure Socket Layer SSL, Secure Electronic Transaction SET

Internet Ethnic : copyright issues in Hong Kong, Internet, developing web pages ethnically, use of images, designs, etc.

## **Teaching Method/Class Activities**

Class activities include lectures/tutorial, in-class exercises with different tasks to be completed. Students are expected to gain knowledge and skill through the use of various software and practices with exercises.

### **Assessment**

|   |             |
|---|-------------|
| Assignments   | 35%         |
| Test  | 20%         |
| Class Attendance, Participation, and Class Exercise | 5%          |
| Examination   | <u>40%</u>  |
| <b>Total</b>  | <b>100%</b> |

### **Required/Essential Readings**

Deitel H., Deitel P. and Nieto T., *Internet & World Wide Web How To Program*, 3rd ed., Prentice Hall 2004.

### **Recommended/Supplementary Readings**

Barron, D., *The World of Scripting Languages*, Wiley 2000

Norris, M., West, S., and Gaugh, K., *E-business essentials : technology and network requirements for the electronic marketplace*, New York : Wiley, 2000.

Young, M., *Internet : the complete reference*, Berkeley, Calif. ; London : Osborne, 1999.