

AIT 5104 Web Based Learning

January, 2005

**Programme: Advanced Postgraduate Diploma in Information Technology
Master Degree in Information Technology**

Credit : 3

Prerequisite: Nil

I. Course Description:

AIT 5104 provides current and emerging theories and applications of web page environments for educational purposes. Web environments will be studied for their applications in education. Web pages will be constructed as a project in this course for the purposes of providing a developmentally appropriate academic experience integrated with current learning theories and better practices in education.

II. Course Purpose:

This course is one of the five elective courses that comprise the technology strand course for the Advanced Postgraduate Diploma requirement. This course examines current and emerging theories and applications of web page development and environments for educational purposes.

III. Course Objectives:

- 1. Students will demonstrate proficient use of foundational technology skills.*
- 2. Students will appropriately integrate web based instruction and the Internet into content area teaching.*
- 3. Students must demonstrate the ability to compile, organize, analyze, synthesize, and evaluate information and the use of web based instruction in developing instructional units, which will include selecting appropriate tools for communicating concepts, conducting research and solving problems.*
- 4. Students will be able to appropriately use web-based resources for research.*
- 5. Students should be able to synthesize information from different sources and present it in an organized, meaningful report using correct APA documentation and manuscript format.*
- 6. Students will integrate web-based tools with content specific curriculum in order to facilitate students' higher order and complex thinking skills, which includes problem solving, critical thinking, informed decision making, knowledge construction, and creativity.*
- 7. Each course participant will construct web pages for the purpose of providing a developmentally appropriate learning experience.*
- 8. Students will apply technology to facilitate a variety of effective assessment and evaluation strategies.*
- 9. Students will use technology to enhance their productivity and professional practice.*

IV. Course Outline

WEEK	TOPICS
1	Introduction <ul style="list-style-type: none">◆ Web Learning Orientation<ul style="list-style-type: none">- WWW fundamental- Different web building tools◆ HTML technique<ul style="list-style-type: none">- HTML overview- Simple web page building
2	Networking Theory <ul style="list-style-type: none">◆ Networking Basis<ul style="list-style-type: none">- Networking terms- Basic knowledge of LAN- Topology- IP Address- Communication Protocol- Wireless Accessing
3	Presentation Web Page Building <ul style="list-style-type: none">◆ Dreamweaver MX<ul style="list-style-type: none">- Dreamweaver environment- Site building, managing assets, adding text / image, frames and layers- Using hyperlinks, Tables, Advanced features
4	Interactive Web Page Building <ul style="list-style-type: none">◆ Flash MX – Session I<ul style="list-style-type: none">- Flash environment- Tweening◆ Flash MX – Session II<ul style="list-style-type: none">- Layers, action script, adding multimedia element
5	Online Test Building <ul style="list-style-type: none">◆ Dreamweaver CourseBuilder<ul style="list-style-type: none">- Hot Area- Drag-Drop- Multiple choice- Marking
6	Web Database Management <ul style="list-style-type: none">◆ Dreamweaver UltraDev<ul style="list-style-type: none">- Database building- Mapping database to table- SQL syntax
7	Server Setup and Animated Web Page Building <ul style="list-style-type: none">◆ Building a WEB server<ul style="list-style-type: none">- Server Technology- Windows Server setup and management

	<ul style="list-style-type: none"> ◆ Active Server Pages <ul style="list-style-type: none"> - Identifying ASP scripts - Objects in ASP
8	<p>Web Design Elements</p> <ul style="list-style-type: none"> ◆ Elements for building a good web site ◆ Guidelines for designing a good web site ◆ 10 commandments in web site design ◆ Copyright issues on the web
9	<p>Web Page Design for Online Learning</p> <ul style="list-style-type: none"> - Instructional design for Web based learning - Storyboards - File structure - Uploading pages to web server - Making interactive links and mapping images
10	<p>Planning a Teaching and Learning Environment on the Web</p> <ul style="list-style-type: none"> ◆ Creating your Web Site <ul style="list-style-type: none"> - Reader Orientation Devices - Informational Elements - Graphical Design Elements - Page and Contact Information - Interactive Elements
11	<p>Web Based learning Theories</p> <ul style="list-style-type: none"> ◆ Two approaches to Web-based learning ◆ Model and teaching for understanding ◆ Extended, enhanced and effective learning and instruction ◆ Finding appropriate resources ◆ Technology and constructivism ◆ Pedagogical issues: Breaking with tradition
12	<p>The WWW and Learning</p> <ul style="list-style-type: none"> ◆ Messaging, bulletin board and online discussions and collaboration ◆ Current and emerging uses of web environments in education ◆ Online courses and distance education ◆ Distance learning pedagogies ◆ Ethical uses of Internet ◆ Thinking critically about web resources
13	<p>Web sites evaluation</p> <ul style="list-style-type: none"> ◆ Evaluation of a web site ◆ Checklist for evaluating web based training <p>The use of Web Based Learning in culturally diverse learning environments</p>
14	<ul style="list-style-type: none"> ◆ Presentation of Web Based Learning Projects ◆ Revision of course materials ◆ Group discussion and Comments to the class projects ◆ Course Evaluation

V. Instructors

Week	Date	Instructor
1	21/1/2005	Ms. Chan Kit Sum
2	28/1/2005	Ms. Chan Kit Sum
3	4/2/2005	Ms. Chan Kit Sum
4	18/2/2005	Ms. Chan Kit Sum
5	25/2/2005	Ms. Chan Kit Sum
6	4/3/2005	Ms. Chan Kit Sum
7	11/3/2005	Ms. Chan Kit Sum
8	18/3/2005	Mr. Wong Kwong Wai, Raymond
9	1/4/2005	Mr. Wong Kwong Wai, Raymond
10	8/4/2005	Mr. Wong Kwong Wai, Raymond
11	15/4/2005	Mr. Wong Kwong Wai, Raymond
12	22/4/2005	Mr. Wong Kwong Wai, Raymond
13	29/4/2005	Mr. Wong Kwong Wai, Raymond
14	6/5/2005	Mr. Wong Kwong Wai, Raymond

Instructor Assistant: Mr. Fung Kam Hang

VI. Grading Criteria

Grades will be assigned based on the following weightings:

Evaluation of web sites for learning	20%
Module quizzes, discussions & exercises	30%
Comments to the projects of other classmates	10%
Completed Web Based Learning Project	40%

VII. Reference

- Castro, E. (1998). HTML for the World Wide Web. Berkeley, CA: Peachpit Press.
- Gaskill, D. (2001). Web site design made easy. Englewood, CO: Morton Publishing Company.
- Johnson, L. & Lamb, A. (2000). Thematic technology integration. Emporia, KS: Vision to Action.
- Lamb, A. (1998). Spinnin' the web: Designing and developing web projects. Emporia, KS: Vision to Action.
- Lamb, A., Smith, W. L. (1999). Virtual sandcastles: Teaching and learning at a distance. Emporia, KS: Vision to Action.
- National Educational Technology Standards for Teachers. (2000). International Society for Technology in Education.
- Brusilovsky, P., Ritter, S., and Schwartz, E. (1997) Distributed Intelligent Tutoring on the Web. In: Proceedings of AI-ED '97, 8th World Conference on Artificial Intelligence in Education, Amsterdam, Aug. 18-22
- Godwin-Jones, B., Polyson, S. (1997) Tools for Creating and Managing Interactive Web-Based Learning. Presented at EDUCOM '97, October 1997.
- Goldberg, M. and Salari, S. (1997), An Update on WebCT (World-Wide-Web Course Tools) - a Tool for the Creation of Sophisticated Web-Based Learning Environments, Proceedings of NAUWeb '97 - Current Practices in Web-Based Course Development, June 12 - 15, 1997, Flagstaff, Arizona
- Goldberg, M., Salari, S., Swoboda, P. (1996) World Wide Web Course Tool: An Environment for Building WWW-Based Courses, Computer Networks and ISDN Systems, 28. Presented at the Fifth International World Wide Web Conference, May 1996.
- Khan, B. (ed), Web-Based Instruction, Educational Technology Publications, Inc, 1997
- Rehak, D. (1997b) A Database Architecture for Web-Based Distance Education. Presented at: WebNet'97, World Conference of the WWW, Internet and Intranet, October 1997
- Relan, A. and Gillani, B. (1997) Web-Based Instruction and the Traditional Classroom: Similarities and Differences, in (Khan 1997).