

COURSE OUTLINE

Department & Faculty: Department of Educational Multimedia, Faculty of Education	Page : 1 of 5
Course Code: MPT 1403 :Introduction to Networking System in Education Total Lecture Hours: 42 hours	Semester: 1 Academic Session: 2008/2009

Lecturer : Assoc. Prof. Mohamad Bilal Ali
Room No. : C14-324
Telephone No. : 07-5534440 | 017-7770383 (HP)
E-mail : mba@utm.my

Synopsis : In this course, students will discuss the role of computer in the school. The development of the computer technology and networking including hardware and software are also covered in this course. This course will enable students to experience in assembling computer hardware and computer networking. They are given a chance to design, install, testing and commissioning wired and wireless networking in the lab. Finally, students will experienced designing, installing, testing and commissioning computer networking at site for T&L purposes as a project to this course.

LEARNING OUTCOMES

By the end of the course, students should be able to:

No.	Course Learning Outcome	Programme Learning Outcome(s) Addressed	Assessment Methods
1.	analyze the role of computer in school	P01,L01	F,T
2.	assemble, testing and commissioning computer hardware and software.	P01,L01	LW,Pr,F
3.	design, installing, testing and commissioning computer networking	P05,L01,L05	HW,PR,Pr
4.	troubleshoot computer hardware and software for simple and common problem	P05	LW, Pr,F (T – Test ; PR – Project ; Q – Quiz; HW – Homework ; Pr – Presentation; F – Final Exam; LW – Lab Work)

COURSE OUTLINE

Department & Faculty: Department of Educational Multimedia, Faculty of Education	Page : 2 of 5
Course Code: MPT 1403 :Introduction to Networking System in Education Total Lecture Hours: 42 hours	Semester: 1 Academic Session: 2008/2009

STUDENT LEARNING TIME

Teaching and Learning Activities	Student Learning Time (hours)
1. Lecture	30
2. Independent Study - self learning - information search - library search - reading - group discussion - Lab work	32
3. Project (1 individual project) - information search - library search - Lab work	20
4. Project (2 group project) - information search - library search - designing - Lab work - installing on site	30
5. Portfolio preparation	5
6. Exam	3
Total	120

TEACHING METHODOLOGY

Lecture, Demonstration, and Discussion, Co-operative Learning, Independent Study, Lab Work, Student Portfolio, Academic Forum/Debates

COURSE OUTLINE

Department & Faculty: Department of Educational Multimedia, Faculty of Education	Page : 3 of 5
Course Code: MPT 1403 : Introduction to Networking System in Education Total Lecture Hours: 42 hours	Semester: 1 Academic Session: 2008/2009

WEEKLY SCHEDULE

WEEK	TOPIC
------	-------

- | | |
|---|---|
| 1 | Introduction: <ul style="list-style-type: none">• Introduction to computer technology and its architecture. |
| 2 | Computer hardware and software <ul style="list-style-type: none">• computer peripheral• Operating system• Application software |
| 3 | Computer Hardware assembling <ul style="list-style-type: none">• Differentiate between main and additional hardware component• Assembling computer hardware |
| 4 | Installation of Operating system <ul style="list-style-type: none">• Selecting appropriate operating system• Setting up BIOS• Installation and setting up operating system |
| 5 | Networking <ul style="list-style-type: none">• Introduction to computer networking• Networking topology• LAN, MAN, WLAN, WMAN• WiFi, Bluetooth, infrared |
| 6 | Networking hardware and software <ul style="list-style-type: none">• NIC, hub, router, switch, modem• Copper wire, fibre optic |
| 7 | LAN setup <ul style="list-style-type: none">• Design a network• Selecting tools, cable, wire• Do cabling, testing and commissioning |
| 8 | Mid-Semester Break |
| 9 | Network Operating system (NOS) <ul style="list-style-type: none">• NOS installation• Setting up NOS for sharing of folders and peripheral |

COURSE OUTLINE

Department & Faculty: Department of Educational Multimedia, Faculty of Education	Page : 4 of 5
Course Code: MPT 1403 :Introduction to Networking System in Education Total Lecture Hours: 42 hours	Semester: 1 Academic Session: 2008/2009
10 On site networking project • Site visit to identify and analyse the suitability of the site • Designing networking • Prepare the project proposal including costing 11 On site networking project • Proposal presentation • Discussion 12 On site networking project • Network installation • Testing and commissioning • Prepare project report 13 Presentation • Project presentation • Discussion 14-15 Designing WAN (based on school environment) • Identify topology • Identify equipment and cost • Propose installation plan • Presentation and discussion 16-18 Revision Week and Final Examination REFERENCES : 1. Scott Mueller (2005). Upgrading and Repairing PCs (Que) 2. Baharuddin Aris. <i>et. al</i> (2001). Sistem Komputer & Aplikasinya (Venton) 3. Anurag Kumar, D. Manjunath, Joy Kuri (2008). Wireless networking. (Morgan Kaufmann) 4. Comer, Douglas E. (2005). Hands-on networking with internet technologies. (Upper Saddle River) 5. Hekmat, Ramin. (2006). Ad-hoc networks : fundamental properties and network topologies. (The Netherlands)	

COURSE OUTLINE

Department & Faculty: Department of Educational Multimedia, Faculty of Education	Page : 5 of 5
Course Code: MPT 1403 :Introduction to Networking System in Education Total Lecture Hours: 42 hours	Semester: 1 Academic Session: 2008/2009

GRADING:

(Provide details on the allocation of marks and the time schedule for all quizzes, tests, assignments, etc.)

Evaluation	Status	Percentage (%)
Assignment 1	Individual	5
Assignment 2 (Proposal)	Group	10
Assignment 2 (Presentation)	Group	5
Assignment 3 (Network Installation Project)	Group	35
Assignment 3 (Presentation)	Group	5
Test	individual	10
Final Exam	Individual	30
Total		100