City University of Hong Kong
Course Syllabus

offered by College/School/Department of Electrical Engineering
with effect from Semester B in 2017/2018

Part I   Course Overview

Course Title: Engineering Training I for Information Engineering

Course Code: EE4093

Course Duration: One Summer Semester

Credit Units: 0

Level: B4

Proposed Area:
(for GE courses only)
☐ Arts and Humanities
☐ Study of Societies, Social and Business Organisations
☐ Science and Technology

Medium of Instruction: English

Medium of Assessment: English

Prerequisites:
(Course Code and Title)
CS2363 Computer Programming
or
CS2311 Computer Programming

Precursors:
(Course Code and Title)   Nil

Equivalent Courses:
(Course Code and Title)   Nil

Exclusive Courses:
(Course Code and Title)   Nil

Part II Course Details

1. **Abstract**

    This course aims to provide students with relevant practical training for the Information Engineering discipline. It emphasizes hands-on experiences that complement the theoretical studies covered in the regular taught courses.

2. **Course Intended Learning Outcomes (CILOs)**

    (CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs#	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Use basic Unix commands, set up web server and write simple PHP program		✓	✓	
2.	Recognize various kinds of networking protocols and configure a small computer network		✓	✓	

* If weighting is assigned to CILOs, they should add up to 100%.   100%

 # Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: *Accomplishments*
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Teaching and Learning Activities (TLAs)
(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2					
Laboratory	The teaching and learning activities are primarily based on a five-day training on Linux fundamental, web server set up and simple PHP programming. Students are required to complete one module on each day.	✓						2 weeks (7 hrs x 10 days, 70 contact hours)
	The training and learning activities are primarily based on a five-day training schedule on network fundamentals and small computer network configuration. Students are required to complete 11 training modules and case study with some tests.		✓					

4. Assessment Tasks/Activities (ATs)
(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.						Weighting*	Remarks
	1	2						
Continuous Assessment: <u>100%</u>								
Training modules, and case study with some tests	✓	✓						
Examination: <u>0%</u> (duration: hrs , if applicable)								

The weightings should add up to 100%. | 100% |

Remark:
The assessment is purely on a pass/fail basis. To pass the course, students are required to have a laboratory attendance of 100% recorded.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Pass (P)	Failure (F)
Coursework	Achievements in CILOs	Reach the required level	Not even reaching marginal level

6. Constructive Alignment with Major Outcomes

Please state how the course contribute to the specific MILO(s)

MILO	How the course contribute to the specific MILO(s)
1, 2, 3, 5, 10	This training course provides students with hands-on experience of some necessary skills and tools required for information engineering design work that complements their theoretical studies covered in the regular taught courses.
6, 9	By exposing students to a simulated in-house training environment as in the industry, they are expected to be aware of the importance of life-long learning. They will also realize their professional and ethical responsibilities under the guidance of the training supervisors

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

Session 1 - Linux fundamentals, web server set up and simple PHP programming

This training is to provide hands-on experience for students on basic UNIX commands and managing Linux-based system by its advanced graphical user interface. The students are required to install the Red Hat Linux distribution for desktop applications and use some popular Open Source Desktop applications including Open Office, Web Browser, FTP and GIMP. They can use the basic UNIX commands and text editor for file processing and describe the basic UNIX file system layout. They are also required to set up Web Server with the use of Apache Open Source Application and write simple PHP programs for web applications.

Session 2 – Routing protocol and small network configuration

After recognizing various kinds of networking protocols and major components inside a computer network; the students are required to configure a small network, test the connectivity of the network and trouble shoot basic networking problems. They are also required to manage basic commands of Cisco's IOS and explain the main function of the OSI Application, Transport, Network, Data Link and Physical Layers, etc

2. Reading List
2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

	Nil

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	Linuxcommand.org: There are many pages indexed by function, and a brief of Linux system.
2.	Linux handbook: A typical Taiwanese-style Linux handbook. The X Window and Embedded System parts are not completed.
3.	UNIX Tutorial for Beginners
4.	A Basic UNIX Tutorial
5.	Training material for Linux Fundamentals: http://www.ee.cityu.edu.hk/~ee4093
6.	Course Website for CCNA training: http://net.ee.cityu.edu.hk/IT_Courses/EE4093/