UbiN3$

Ubiquitous Networked Embedded System

Course Syllabus

SW60–212 Data Communication and Computer Network

School of Informatics, WU, THAILAND

Basic Information

- **Course Name**
  - SWE60-212 Data Communication and Computer Network
- **Credit**
  - 3(2-2-7), 2 hours for lecture and 2 hours for practices per week
- **Pre-requisite**
  - No

Grade Policy

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#	Activity	Description
15	**Midterm Examination**	**The summative assessment is to evaluate that the student can remember and understand the theory in a computer network.**
15	**Final Examination**	**The summative assessment is to evaluate that the student can apply and analyze the theory in a computer network.**
10	Workshop	Students will be observed and evaluated with rubrics scores in terms of success, intention, problem-solving and knowledge discovery.
10	**Workshop Test**	**The summative assessment in practice in a computer network.**
20	Online quiz	The self quiz via google form when student complete each chapter.
9	Class Activity	Any class activity such as problem-solving in class
6	Lecture Note	Handwriting self lecture note: take photo and upload via google drive
10	**Test**	**The individual test in class**
5	Affection	DO NOT LATE
100	**TOTAL**	

Total score $\geq$ 80 get A, on the other hand if less than 40 will get F

Course Description

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- Introduction to Computer Network
- Data Communication
- Network Architecture
- Application Layer
- Reliable Protocol
- Basic Network Security Concepts

Lecture - 20 Hrs.

- **Need to Pre-test online**
  - DUE DATE June 6, 2019 - 11.59PM
- Active Learning
  - Before class attending
    - Self study via courseware
    - Complete the pretest online quiz (as class score)
  - Class Activities
    - Question and Discussion
    - Problem and Solution (as class score)
  - After class attending
    - Post-test - online

Workshop (20 Hours)

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- **Network OS management with Linux (5 Hours)**
  - Native Installation and Simulation with Window Linux Subsystem
  - User command: file/directory management, Text processing, File System Management.
  - Privileged command: Disk Management, User management, Process Management.
- **Micro-services with Docker (5 Hours)**
  - Basic Docker command
  - Basic Docker compose command
  - System Architecture design with Docker compose

Workshop (20 Hours)

- **Network Design and Implementation with CISCO devices (10 Hours)**
  - CISCO command with Packet Tracer: Basic command, Switch, Router
  - Hierarchical Network Implementation
  - Internal Routing Network Implement : Static Router, Dynamic Router
  - WAN implementation and it Routing Mechanism (Optional)

Lecturer

- **Chanankorn Jandaeng**
  - Ph.D. (Computer Engineering), PSU, 2012
- **Interested fields**
  - Computer Network Design/Management
  - Computer and Network Security
  - Information Security
  - Cloud Computing and Big Data
  - Internet of Things
- **Offices**
  - C3 RM259
  - 075672209