

# 31110317 COMPUTER NETWORKS LABORATORY

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**Instructor:** Songrit Kitisiworapan  
**Email:** [songrit@npu.ac.th](mailto:songrit@npu.ac.th)

**Time:** Fri 13:30 – 16:30  
**Place:** Engineering Bld. EN1303

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## Course Pages:

1. <https://github.com/Lecture-CPE/317>
2. <https://elab.npu.world>

**Office Hours:** After class, or by appointment, or E-mail.

**Objectives:** This course concern in the laboratory experiments (Hand-on) on topics covered in Data Communications and computer networks. The topics are TCP/IP and addressing; Wide Area Network; Routing Protocol; Manage Switch; Virtual LAN configuration; WAN design.

**Prerequisites:** -

**Grading Policy:** Lab assignment (40%), Assignments (10%), Midterm (20%), Final (30%).

## Important Dates:

Midterm ..... Jan, 2021  
Final Exam ..... Mar, 2021

## Course Policy:

- Grading A, B+, B, C+, C, D+, D, F(< 50%)
- All hard-copy assignments must be handed in at the beginning of the class (> 15 min. is considered late).
- For soft-copy will be timed by the local time stamp.

## Class Policy:

- Regular attendance is essential and expected.

**Academic Honesty:** Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation.

**Tentative Course Outline:**

Week	Description
1	Course orientation Preparing tools; Introduction to Docker, GNS3, VirtualBox, Ubuntu <b>Lab-1</b> Connected PC
2	<b>Lab-2</b> LAN cable and basic switch configuration
3	<b>Lab-3</b> VLAN Configuration
4	<b>Lab-4</b> Static Routing
5	<b>Lab-5</b> Dynamic Routing, RIP
6	<b>Lab-6</b> Dynamic Routing, OSPF
7	<b>Lab-7</b> VLAN Trunking Protocol
8	<b>Midterm Exam</b>
9	Site visit (DC)
10	<b>Lab-10</b> Access Control List
11	<b>Lab-11</b> Access Control List (Cont)
12	<b>Lab-12</b> WLAN
13	<b>Lab-13</b> WLAN Site survey
14	<b>Lab-14</b> WLAN Site survey (Cont)
15	<b>Lab-15</b> Summary course
16	<b>Final Exam</b>