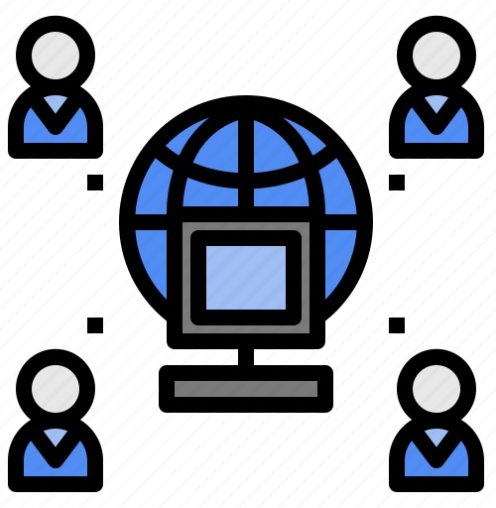
During the coronavirus pandemic, I can not live without?!

25
20
15
10
5
0

Food
Family
Boyfriend/Girlfriend
Pet (Cat/Dog)
Money
Internet

7.83 Billion



4.66 Billion

59.5%

30 billion connected

IoT devices today

$1,386.06 billion

Source: https://www.statista.com/statistics/617136/digital-population-worldwide/

Computer Networks

Lecture 0: Course introduction

Lecturer: Le Duy Tan, Ph.D.

Instructor's Profile

Lê Duy Tân, PhD

- B.Eng. *Computer Network and Communications* (2016) – UIT – VNU-HCM
- M.IT (2018) and Ph.D. (2021) Information Science – JAIST - Japan
- Email: tg_leduytan_cntt@tdtu.edu.vn

https://www.leduytanit.com/

Research Interests

- Smart Grid
- Internet of Things
- Network Security
- Computer Networks

Teaching Courses

- Computer Networks
- Internet of Things
- Introduction to Computing
- Computer Graphics

Hobbies

- Japanese language and culture
- Running

Course Information

- Course title: Computer Networks, 04 credits
- Time: once a week
- Instructor: Lê Duy Tân, Ph.D.
  - Email: tg_leduytan_cntt@tdtu.edu.vn
  - Use your student email
  - Use label [Computer Networks – Your Group] in the subject of the e-mails

Computer networks

- Prerequisite courses:
  - C/C++ Programming in Unix,
  - Object-Oriented Programming
- Text book:
  - J. F. Kurose, K. Ross, Computer Networking: A Top-Down Approach, 6ed.

Course descriptions

This course covers the fundamental knowledge of computer networks:

- OSI, TCP/IP models
- Network architectures: LAN, WAN
- Typical network protocols

The students will also study to design, implement and monitor a small / medium scale network.

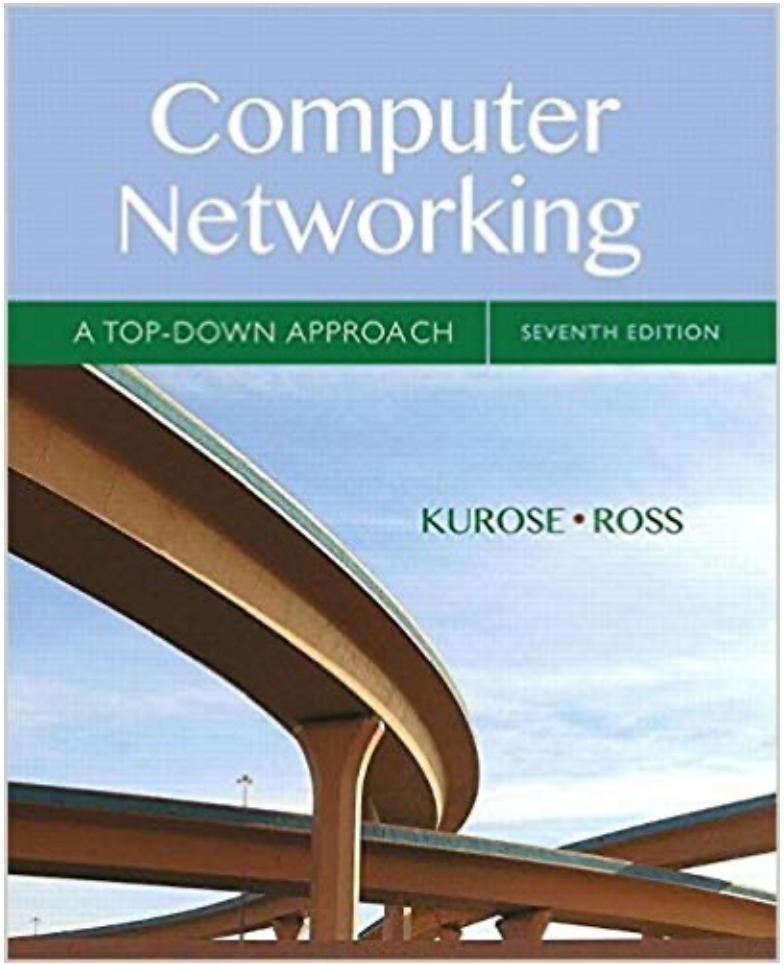
Course learning outcomes

After finish the course, the students will be able to

1. Be able to describe the fundamental concepts, architectures, algorithms and protocols of computer networks
2. Be able to design and build a small / medium networks

References

- Textbook: J. F. Kurose and K. W. Ross, Computer Networking: A Top-Down Approach.
- The documents assigned in class.
- Lecture slides



Tentative schedule

Days	Topics
Day 1-2	Introduction of computer networking
Day 3-4	Network applications: HTTP, video streaming over HTTP, DNS, SMTP
Days 5-6	Transport layer: congestion control, TCP, UDP
Days 7-8	IP addressing, CIDR, VLSM
Mid-term Exam: Chapter 1, 2, 3, 4	
Days 9-10	Network layer: routing algorithms, OSPF
Days 11-12	Datalink layer and physical layer
Days 13-14	Wireless networks and other advanced topics
Day 15	Revision
Final Exam: Chapter 5, 6, 7	

Assessments

Item	Points	Percent
Homework and Assignments	10	**10%**
Lab Reports	20	**20%**
Midterm Examination	20	**20%**
Final Examination:	50	**50%**
Total Points	**100**	**100%**

Google Classroom

- Course information, announcements
- Download lectures
- Upload the assignments, lab reports (all files must be in pdf format)

Class rules in general

1) If you attend less than 80% of the classes, you will fail this course

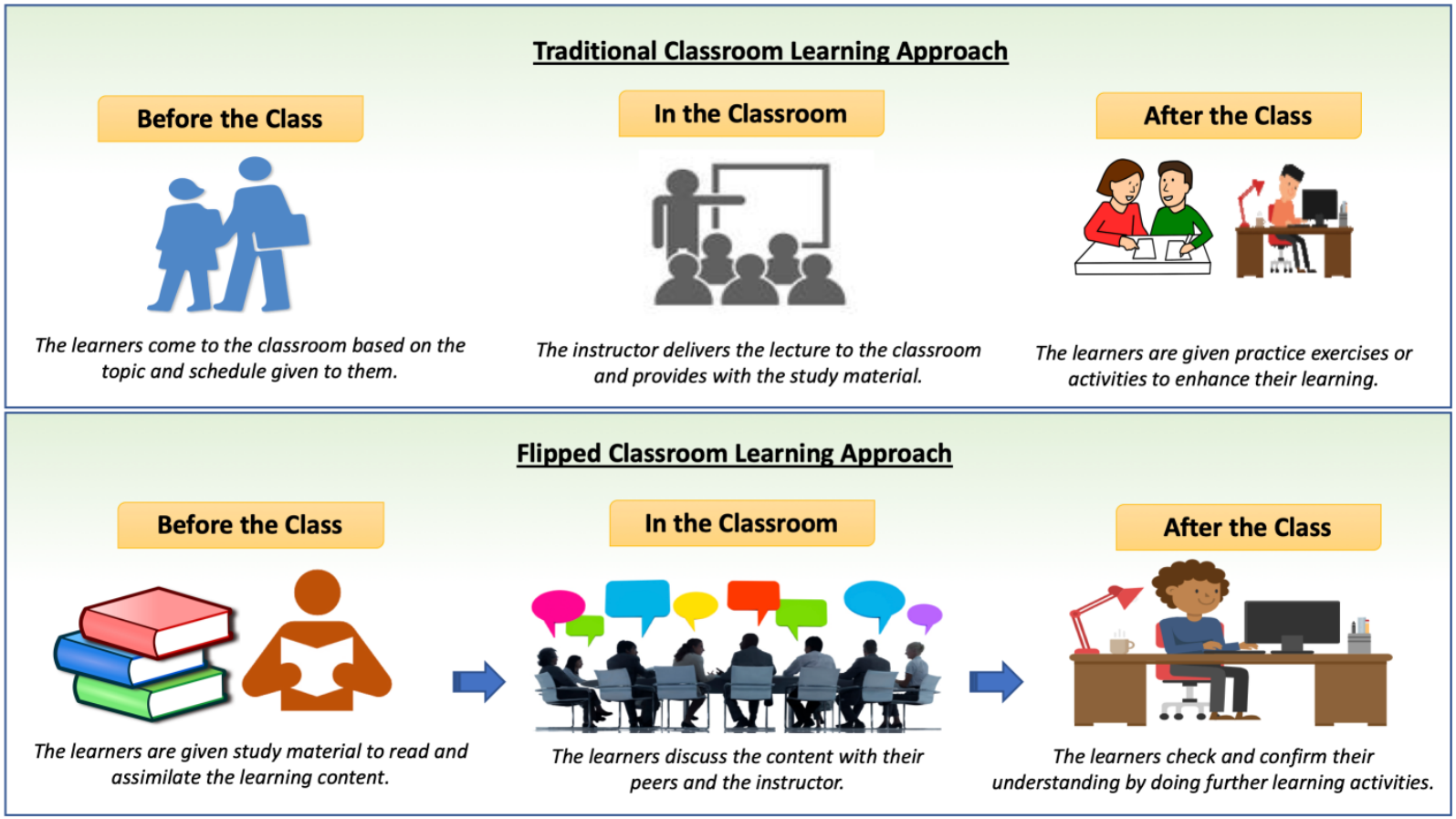
2) Class information, lecture slides, grades,… are posted on Blackboard

3) Plagiarism checking is applied for the homework

Requirement: < 25%

Flipped Classroom Approach

Students are asked to **complete the readings and watching the lectures** as well as **finishing the quizzes** at home and come to class ready to complete active learning activities related to the coursework



Feedback and comment

- Email your instructor
  - Use your IU email
  - Use label **[Computer Networks – Your Group]** in the subject of the e-mails
- Google Form link
  - Post Message as Anonymous
  - Link: https://forms.gle/JQpQ1Uy9erEMmdWE6