COM-407
TCP/IP networking
Le Boudec Jean-Yves

Cursus
Cyber security minor
Cybersecurity
Génie électrique et électronique
Informatique
Mineur en Systèmes de communication
SC master EPFL

Sem. Type
H Opt.
MA1, MA3 Obl.
MA1, MA3 Opt.
MA1, MA3 Obl.
H Opt.
MA1, MA3 Obl.

Language English
Credits 6
Session Winter
Semester Fall
Exam Written
Workload 180h
Weeks 14
Hours 6 weekly
Lecture 2 weekly
Exercises 2 weekly
Practical work 2 weekly

Number of positions

Summary
In the lectures you will learn and understand the main ideas that underlie and the way communication networks are built and run. In the labs you will exercise practical configurations.

Content

Keywords
TCP/IP
Computer Networks

Learning Prerequisites
Required courses
A first programming course

Learning Outcomes
By the end of the course, the student must be able to:
• Run and configure networks
• Understand the main ideas that underlie the Internet
• Write simple communicating programs
• Use communication primitives for internet and industrial applications.

Transversal skills
• Access and evaluate appropriate sources of information.
• Continue to work through difficulties or initial failure to find optimal solutions.

Teaching methods
Lectures with questionnaires.
Online quizzes.
Labs on student's computer and if required and if possible, in the Internet Engineering Workshop

Expected student activities
- Participate in lectures
- Participate in online quizzes
- Make lab assignments (in the rule, every other week, including handing in a written report)

Assessment methods
- Theory grade = final exam
- Practice grade = average of labs
- Final grade = mean of theory grade (50%) and practice grade (50%).
The research exercise may give a bonus of at most 0.5 points in 1-6 scale on the practice grade.

Supervision
- Office hours: Yes
- Assistants: Yes
- Forum: Yes

Resources
Bibliography
"Computer Networking : Principles, Protocols and Practice", O. Bonaventure, open source textbook,
http://inl.info.ucl.ac.be/CNP3

Ressources en bibliothèque
- Computer Networking / Bonaventure

Notes/Handbook
- Slides are on moodle

Websites

Moodle Link

Videos