Computer Networking & Distributed Applications

Subject area: Computer Science/ICT

University:	L'X
Level:	BA all years, MA1, MA2
Teaching mode:	completely online, not time-specific
Instructor(s):	Thomas Heide Clausen

Short description

This course will introduce students to the architectures, theory, and practice required for implementing communicating, Internet-connected, systems — as well as provide students with the necessary understanding of “how the Internet Works”. The course will be available asynchronously, fully on-line, or on-side, through learning flows with short videos, quizzes, homework, lab exercises.

Full description

https://synapses.polytechnique.fr/catalogue/2020-2021/ue/50/CSE207-introduction-to-networks?from=D12

Learning outcomes

The course will provide students with an abstract "programmers overview of computer network principles and architectures", and will cover topics such as:

- How does the Net Work?
- Network Programming
- Network Configuration
- Components of a Computer Network
- The Domain Name System
- NAT, NAPT, …

The lab exercises will, additionally, give students practical experiences in computer networking - in particular, but not exclusively, in how to write programs that communicate over the network.

General information

Contact hours per week:	2 hours
Total workload:	24,5 hours + personal work (in student hours for the whole course)
ECTS credits:	3

Language:	English
Course start date:	01 September 2022
Course end date:	03 June 2023
Add. info about start date:	Individualised, can be any date, between Sept. 1, 2022 and April 1, 2023. Please note that the intended start-date must be communicated to Ecole Polytechnique at the time of registration. The course end date should be exactly 10 weeks after the start-date.
Weekly teaching day/time:	Available fully asynchronous
Time zone:	CET (Denmark, Germany, France, Netherlands, Switzerland, Czech Republic)
Further information:	
Prerequisites:	Any “introduction to computer programming” course
Activities and methods:	The course will be available asynchronously, fully on-line, or on-side, through learning flows with short videos, quizzes, homework, lab exercises / tutorials — as well as office-hours via Webex with professors and instructors. While being asynchronous, each student is expected to check in with an instructor over Webex, weekly, following the chosen start-date.
Presence on campus:	no

Final examination

Form:	Final exam, weekly quizzes, graded assignments
Date:	
Location/format:	online
Re-sit possibility:	yes
Transcript available:	end of the semester and generally 8 weeks after the exam.
Add. info/requirements:	

Registration

To register for this course, follow the registration requirements of your **home university** as specified here: www.euroteq.eu/courses-registration.

Administration

Number of places:	24 - 30
Minimum participants:	
Internal course code:	CSE207
Contact:	Interested EuroTeQ students are welcome to, at any time, to come discuss their course choices in chat, or in visio, with the instructors from Ecole Polytechnique who will be teaching the classes. To this end, a dedicated WebEx space is permanently available here: https://eurl.io/#fCk0f6iWF.

This course is part of the EuroTeQ Engineering University joint course catalogue 2022/2023. This is a collaborative activity of the partner universities DTU, L'X, TU/e, TalTech, CTU, TUM as well as Technion. Students from these universities can participate in the offered courses. It is the responsibility of the student to check if you fulfil the requirements to participate in a specific course. Students are also advised to check with their home institution how to get recognition of the ECTS credits gained in courses of the EuroTeQ course catalogue. For further information about EuroTeQ Engineering University, visit www.euroteq.eu or get in touch with the above-mentioned point of contact.