UCLouvain

lingi2241

2019

Architecture and performance of computer systems

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

6 credits	30.0 h + 30.0 h	Q1

Teacher(s)	Sadre Ramin ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	• Organization of operating systems • Management of devices by the operating system • Management of storage devices by the operating system • Filesystems • Virtualization • Evaluation and improvement of performance of computer systems
Aims	Given the learning outcomes of the "Master in Computer Science and Engineering" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes: • INFO1.1-3 • INFO2.4-5 • INFO5.2-5 • INFO6.1, INFO6.3 Given the learning outcomes of the "Master [120] in Computer Science" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes: • SINF1.1-3 • SINF2.4-5 • SINF5.2-5 • SINF6.1, SINF6.3 1 Given the learning outcomes of the "Master [60] in Computer Science" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes: • 1SINF1.M1 1SINF1.M2 • 1SINF2.4-5 • 1SINF5.2-5 • 1SINF6.1, 1SINF6.3 Students completing this course successfully will be able to • compare different implementations for operating systems and highlight the advantages and disadvantages of these achievements • explain the interactions between the operating system and the hardware (storage, network, virtualization) • evaluate the performance of a computer system • identify factors that limit the performance of a computer system - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** • Project (40% of the final mark) • Final exam (60% of the final mark)
Inline resources	Moodle
Bibliography	• Publications (scientific papers and public websites) • MoodleUCL

Other infos	Background : • basic computer architecture and operating systems concepts (LSINF1252) • computer networks organisation and protocols LINGI1341
Faculty or entity in charge	INFO

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Data Science Engineering	DATE2M	6		
Master [120] in Computer Science and Engineering	INFO2M	6		
Master [60] in Computer Science	SINF2M1	6		
Master [120] in Computer Science	SINF2M	6		
Master [120] in Data Science: Information Technology	DATI2M	6		