UCLouvain

lingi2241
2017

Architecture and performance of computer systems

| 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 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	Evaluation methods: - Project (40% of the final mark) - Final exam (60% of the final mark) The project work is mandatory and cannot be repeated for the second examination session. The report will be evaluated only once and can not be represented in the second session.
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 [60] in Computer Science	SINF2M1	6		🔍
Master [120] in Computer Science and Engineering	INFO2M	6		🔍
Master [120] in Computer Science	SINF2M	6		🔍
Master [120] in data Science: Information technology	DATI2M	6		🔍