UCLouvain

lsinf1252

2017

Computer Systems

5 credits	30.0 h + 30.0 h	Q2

Teacher(s)	Bonaventure Olivier ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	Within SINF1BA : LSINF1101 *The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes	• Levels of abstraction in computer systems • Processor architectures • Machine language, assembly language and C language • Roles and functions of operating systems • Using functions of an operating system in applications • Processes and Threads: Concepts, Problems and Solutions • Multiprocessor systems
Aims	Given the learning outcomes of the "Bachelor in Engineering" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes: • AA1.1, AA1.2 • AA2.4-7 • AA4.1, AA4.4 Given the learning outcomes of the "Bachelor in Computer science" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes: 1 • S1.I4 • S2.2-4 • S5.2, S5.5 Students completing successfully this course will be able to • explain what functions are performed by different levels of the hierarchy from the physical machine level up to the layer that contains the applications. • explain the main architectures of operating systems and processors • use and implement efficiently the various functions and services provided by the processors and operating systems - - - - *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	• Written exam (60%) • Individual project (10%) • Project (10%) group of 2 students. Individual reviews can not be represented in the second session. The mark of project can be replaced by an individual project in the second session.
Teaching methods	Magistral courses and sessions proved by appointed guardian Projects by group
Content	see "Main themes"
Inline resources	https://moodleucl.uclouvain.be/course/view.php?id=9197
Bibliography	Livre de référence : • Systèmes informatiques, Olivier Bonaventure, • Notes de cours, • http://sites.uclouvain.be/SystInfo/

Other infos	http://sites.uclouvain.be/SystInfo/ Background: • Good basic knowledge of programming and algorithmics, and practical experience in programming with a high-level programming language are required to start this course.
Faculty or entity in charge	INFO

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Linguistics	LING2M	5	LSINF1103	
Bachelor in Computer Science	SINF1BA	5	LSINF1101	
Master [120] in data Science: Statistic	DATS2M	5		
Minor in Engineering Sciences: Computer Sciences	LSINF100I	5		
Minor in Computer Sciences	LINFO100I	5	LSINF1101	