UCLouvain

## minfo1201

2024

## Programming and Algorithms

Teacher(s)	Fouss François ;				
Language :	French				
Place of the course	Mons				
Prerequisites	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	Theoretical part  Fundamental principles of algorithmics, structured programming, modularity and data structures common to the main programming languages; Fundamental principles of object-oriented programming (classes and objects, encapsulation, inheritance, polymorphism, etc.).  Exercises in object-oriented language  Formalise problems that can be solved by programming; Programming solutions to these problems, applying the fundamental elements common to all programming languages as well as the fundamental elements of object-oriented programming.				
Learning outcomes	At the end of this learning unit, the student is able to:  Given the « competencies referential » linked to the LSM Bachelor in Management and Business Engineering, this course mainly develops the following competencies:  • 2.1. Understand the basic concepts and theories in each of the fields of management and economics.  • 2.2. Acquire a knowledge base in human science and law.  1 • 3.1. Understand and selectively use scientific texts and works in French and English.  At the end of the class, the student will be able to:  • formalize problems that can be solved with programming;  • solve and program solutions to these problems.				
Bibliography	<ul> <li>HARO C. (2015), Algorithmique: Raisonner pour concevoir (2th Edition), Editions ENI.</li> <li>SWINNEN G. (2012), Apprendre à programmer avec Python 3 (http://inforef.be/swi/python.htm), Licence Creative Commons.</li> </ul>				
Faculty or entity in charge	CLSM				

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Bachelor : Business Engineering	INGM1BA	5	MQANT1109	•		