UCLouvain

# minfo1201

*2026*

# Programming and Algorithms

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

| 5.00 credits | 45.0 h + 20.0 h | Q2 |
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| 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**<br>• Fundamental principles of algorithmics, structured programming, modularity and data structures common to the main programming languages;<br>• Fundamental principles of object-oriented programming (classes and objects, encapsulation, inheritance, polymorphism, etc.).<br>**Exercises in object-oriented language**<br>• Formalise problems that can be solved by programming;<br>• 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 :**<br>1<br>Given the « competencies referential » linked to the LSM Bachelor in Management and Business Engineering, this course mainly develops the following competencies:<br>• 2.1. Understand the basic concepts and theories in each of the fields of management and economics.<br>• 2.2. Acquire a knowledge base in human science and law.<br>• 3.1. Understand and selectively use scientific texts and works in French and English.<br>At the end of the class, the student will be able to:<br>• formalize problems that can be solved with programming;<br>• solve and program solutions to these problems. |
| Bibliography | • HARO C. (2015), Algorithmique: Raisonner pour concevoir (2th Edition), Editions ENI.<br>• SWINNEN G. (2012), Apprendre à programmer avec Python 3 (http://inforef.be/swi/python.htm), Licence Creative Commons. |
| Faculty or entity in charge | CLSM |

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