# UCLouvain

## lfial2640
### 2024

# Introduction to Python programming for the humanities

| 5.00 credits | 22.5 h + 15.0 h | Q2 |
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| Teacher(s) | de Viron Louis ;Zilio Leonardo ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| Learning outcomes | **At the end of this learning unit, the student is able to :**<br><br>1 To plan and develop a sequence of understandable instructions for a computing system to solve a given problem or to perform a specific task. (Programming, DigiComp 3.4)<br><br>2 To use digital tools and technologies to create knowledge and to innovate processes and products. To engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments. (Creatively using digital technologies, DigiComp 5.3)<br><br>3 To organise, store and retrieve data, information, and content in digital environments. To organise and process them in a structured environment. (Managing Data, Information and Digital Content, Digicomp 1.3)<br><br>4 Select and use specialized algorithms to solve artificial intelligence tasks related to automatic language processing.<br><br>'DigiComp' learning outcomes refer to "The Digital Competence Framework for Citizens (DigiComp 2.2)". |
| Evaluation methods | January and August/September exam sessions: written work and written exam. Details about the assessment will be provided during the module and on Moodle. |
| Teaching methods | Lectures and practical exercises. |
| Content | This module serves as an introduction to programming and to computational thinking in general. It mixes expository lectures with hands-on activities that aims at teaching students the basics of programming in Python, going from assigning variables to designing more complex functions and interacting with external code libraries.<br><br>This introductory module also presents the components and dynamics that characterise the Digital Humanities movement, focusing on objects, tools and practices. It will focus in particular on document analysis and digital tools.<br><br>Students are not required to have previous knowledge of Python or other programming languages. The course will start at the very basic, conducting the students along the semester into more complex problem-solving activities using programming language. |
| Bibliography | Lectures recommandées pour l'apprentissage de Python et pour une introduction au traitement automatique de texte :<br><br>• Bird, S., Klein, E. and Loper, E. Natural Language Processing with Python – Analyzing Text with the Natural Language Toolkit. https://www.nltk.org/book/<br>• Dawson, M., 2010. Python programming for the absolute beginner (p. 480). Boston, MA: Course Technology.<br>• Karl, B., 2017. Computational Thinking: A Beginner's Guide to Problem-Solving and Programming. Swindon, UK: BCS, The Chartered Institute for IT.<br>• Perkins, J., 2014. Python 3 text processing with NLTK 3 cookbook. Packt Publishing Ltd. |
| Faculty or entity in charge | FIAL |

| Programmes containing this learning unit (UE) | | | | |
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| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Master [120] in Multilingual Communication | MULT2M | 5 | | 🔍 |
| Master [120] in French and Romance Languages and Literatures : French as a Foreign Language | FLE2M | 5 | | 🔍 |
| Master [120] in Information and Communication Science and Technology | STIC2M | 5 | | 🔍 |
| Master [120] in History of Art and Archaeology: Musicology | MUSI2M | 5 | | 🔍 |
| Master [120] in Translation | TRAD2M | 5 | | 🔍 |
| Master [120] in Interpreting | INTP2M | 5 | | 🔍 |
| Master [120] in History | HIST2M | 5 | | 🔍 |
| Master [120] in Ancient and Modern Languages and Literatures | LAFR2M | 5 | | 🔍 |
| Master [60] in History | HIST2M1 | 5 | | 🔍 |
| Master [120] in Linguistics | LING2M | 5 | | 🔍 |
| Advanced Master in Visual Cultures | VISU2MC | 5 | | 🔍 |
| Master [120] in Ethics | ETHI2M | 5 | | 🔍 |
| Master [120] in Philosophy | FILO2M | 5 | | 🔍 |
| Master [60] in History of Art and Archaeology : General | ARKE2M1 | 5 | | 🔍 |
| Master [60] in History of Art and Archaeology: Musicology | MUSI2M1 | 5 | | 🔍 |