UCLouvain

lfial2020

2024

Code et Culture: Python for digital humanities - Chaire Altissia

5.00 credits	22.5 h	Q2

Teacher(s)	Gribomont Isabelle ;
Language :	French > English-friendly
Place of the course	Louvain-la-Neuve
Prerequisites	Access to this course is restricted to students who have already taken a programming course.
Main themes	What kind of digital data is used in the human sciences (digital corpora, time series, databases, digital images, sound or video recordings, etc.) and, above all, how can their analysis be automated when the volumes of data become too large? Through programming projects, students discover how to manipulate data from the human sciences in the context of different fields of study. Python is a free, versatile programming language with a large community of users in both the academic and private sectors. With the proliferation of digital data in the humanities and social sciences, the use of IT is becoming essential for data collection, formatting, analysis and visualisation. In the context of the humanities, the Python language can be used to collect textual/multimodal data from the internet or social networks, to identify the networks formed by historical figures in a corpus of letters, to automatically recognise the authorship of a literary work through stylistic patterns, to contrast the feelings associated with certain concepts in a media corpus, or to map the places mentioned in a corpus from social networks. Python can be used to apply statistical analysis methods as well as machine learning and Artificial Intelligence methods. It is therefore a flexible tool that opens up a wide range of possibilities. As well as developing computer skills to automate the processing and analysis of human science data, we will reflect on the ethical challenges and dilemmas posed by the computational study of culture.
Learning outcomes	**At the end of this learning unit, the student is able to :** 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) 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) 'DigiComp' learning outcomes refer to "The Digital Competence Framework for Citizens#(DigiComp 2.2)".
Evaluation methods	The assessment includes the following three components: • Written assignment due during the examination session (60%). • Oral presentation in preparation for the written assignment presented at the end of the term (20%). • Continuous assessment of coursework (20%). The oral presentation and continuous assessment will still be taken into account for the August session. A student who fails these components will be offered the opportunity to resubmit the failed tasks or an assignment deemed equivalent. NB: Generative artificial intelligence (AI) must be used responsibly and in accordance with the practices of academic and scientific integrity. Scientific integrity requires that sources be cited, and the use of AI must always be reported. The use of artificial intelligence for tasks where it is explicitly forbidden will be considered as cheating.
Teaching methods	Lectures and hands-on workshops.
Content	This course introduces the research possibilities of the Python programming language in the field of digital humanities. Therefore, we will focus on the modules most relevant to answer humanities research questions. We will use several textual datasets, such as contemporary press corpora, data from social networks, novels or historical documents. Departing from these datasets, we will explore different information extraction tasks, such as the transformation of an image or PDF file into a computer-readable file (Optical Character Recognition), network analysis, the extraction of names of people, places, events and dates (Named Entity Recognition), or the identification of linguistic and semantic patterns.

	Throughout, we will keep a critical eye on the limitations of our methodology and the conclusions we can draw from our results.
Inline resources	Moodle
Faculty or entity in charge	FIAL

Programmes containing this learning unit (UE)

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 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		