










5.00 credits

22.5 h

Q2

Teacher(s)	Fairon Cédric ;François Thomas ;
Language :	French > English-friendly
Place of the course	Louvain-la-Neuve
Main themes	<p>Access to this course is restricted to students who have already successfully credited a Python programming course. The processing of large volumes of textual data is an increasingly frequent situation for linguistic specialists (e.g. analysis of large corpora, data from linguistic surveys, etc.).</p> <p>This course explores various techniques from artificial intelligence and automatic language processing to leverage large volumes of textual data for various purposes, such as to extract information from a text, to assess the quality or the difficulty of a text, to translate it, to simplify it, to categorize it, to identify key concepts or ideas in it, to detect implicit messages, etc.</p>
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <ol style="list-style-type: none"> 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) 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) 4 Understand the theoretical foundations of various AI and NLP algorithms and choose among them those adapted to problems encountered in order to solve tasks related to automatic language processing. <p>These learning outcomes refer to "The Digital Competence Framework for Citizens (DigiComp 2.2)".</p>
Evaluation methods	<ul style="list-style-type: none"> • Continuous assessment during the semester, based on the completion of homework assignments (30% of the final grade); • Programming project in automatic classification, the results of which must be both described in a written report to be submitted at the beginning of the exam session and presented during an oral examination (70% of the final grade)
Teaching methods	Lectures; exercises completed during the course and in the form of home assignments.
Content	Classes are divided between lectures presenting the tools and methods, and tutorials aiming to allow students to experiment with methods and software.
Inline resources	Course slides and supplementary readings are available on the Moodle platform.
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 Data Science : Statistic	DATS2M	5		
Master [120] in Information and Communication Science and Technology	STIC2M	5		
Master [120] in Translation	TRAD2M	5		
Master [120] in History	HIST2M	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		