



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Culture e società
ACADEMIC YEAR	2023/2024
BACHELOR'S DEGREE (BSC)	COMMUNICATION SCIENCES
INTEGRATED COURSE	COMPUTATIONAL LINGUISTICS WORKSHOP
CODE	20296
MODULES	Yes
NUMBER OF MODULES	2
SCIENTIFIC SECTOR(S)	L-LIN/01
HEAD PROFESSOR(S)	MIRTO IGNAZIO MAURO Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	MIRTO IGNAZIO MAURO Professore Associato Univ. di PALERMO BRUCALE LUISA Professore Associato Univ. di PALERMO
CREDITS	10
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	1
TERM (SEMESTER)	Annual
ATTENDANCE	Mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	BRUCALE LUISA Wednesday 11:00 13:00 edificio 15 - stanza 601 (sesto piano) MIRTO IGNAZIO MAURO Tuesday 10:00 11:00 Stanza 501, Edificio 15

DOCENTE: Prof. IGNAZIO MAURO MIRTO

PREREQUISITES	No prerequisites
LEARNING OUTCOMES	<p>Knowledge and Understanding The student will know what an algorithm is, the difference between a formal and an informal algorithm and its main characteristics. S/he will also know the main features of Python</p> <p>Applying Knowledge and Understanding The student will be able to process strings and write simple scripts.</p> <p>Making Judgements The student will be able to ascertain whether the script works correctly and to analyze it in case some corrections are necessary</p> <p>Communication skills The student will be able to discuss a script by using the correct terminology</p> <p>Learning skills The student will be able to keep studying programming and connected scripts in the field of NLP</p>
ASSESSMENT METHODS	<p>After identifying one or more connected problems, for example of morphology or syntax of the Italian language or of other languages, the student will carry out a project aimed at developing an algorithm that allows the automatic treatment of the data, making sure that the solution is as simple as possible, effective, and in line with the empirical data.</p> <p>Eccellente - the project the student formulates and the solutions s/he proposes demonstrate excellent knowledge of the course subjects, good analytical and problem solving skills;</p> <p>Distinto - the project the student formulates and the solutions s/he proposes demonstrate good knowledge of the course subjects, fine analytical and problem solving skills;</p> <p>Buono - the project the student formulates and the solutions s/he proposes demonstrate basic knowledge of the course subjects and acceptable problem solving skills;</p> <p>Discreto - the project the student formulates and the solutions s/he proposes demonstrate imperfect knowledge of the course subjects, low analytical and problem solving skills;</p> <p>Sufficiente - the project the student formulates and the solutions s/he proposes demonstrate minimal knowledge of the course subjects;</p> <p>Insufficiente - the project the student formulates and the solutions s/he proposes demonstrate that the student has unsatisfactory knowledge of the course subjects.</p>
TEACHING METHODS	Laboratory, tasks, drills

MODULE COMPUTATIONAL LINGUISTICS MODULE

Prof. IGNAZIO MAURO MIRTO

SUGGESTED BIBLIOGRAPHY

Testi o tutorial su Python disponibili sul Web
Texts or tutorials concerning Python which can be found on the Web

AMBIT	10679-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	75
COURSE ACTIVITY (Hrs)	50

EDUCATIONAL OBJECTIVES OF THE MODULE

The course, intended for students without programming experience, aims to introduce and use code written in Python destined to morpho-syntactic manipulations, Word Sense/Category Disambiguation, Natural Language Generation

SYLLABUS

Hrs	Workshops
6	What computational linguistics is about. Differences between computational linguistics and Natural language processing. How to tokenize a text; declaring a variable; operating on strings: print, len, split
3	The student becomes familiar with the writing of simple scripts
8	Flow control: instructions with 'if', 'elif', and instructions with 'for' cycles
2	How to read a file
4	Taggers and operations they allow
4	How to extract certain words from a file depending on their part-of-speech
2	Shorter syntax: the list comprehension
3	Disambiguation of various types of 'che'
2	Dictionaries
5	Disambiguation of the lemma 'del': partitive article or preposition coalesced with an article
5	Extraction of noun phrases from any text
6	Generating random transitive sentences in Swahili

MODULE LEXICAL MORPHOLOGY MODULE

Prof.ssa LUISA BRUCALE

SUGGESTED BIBLIOGRAPHY

Micheli M. Silvia, La formazione delle parole, Carocci 2020 ISBN-10: 8829003115; ISBN-13: 978-8829003112.
Materiali prodotti durante le lezioni.

AMBIT	10679-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	75
COURSE ACTIVITY (Hrs)	50

EDUCATIONAL OBJECTIVES OF THE MODULE

Knowledge and comprehension skills
The student will be familiar with word formation strategies in Italian and will be able to understand with minimal observation the formation processes that structure the lexicon of a language.
Ability to apply knowledge and understanding
She/he will be able to analyse the word structure of Italian and will be able to compare it with that of any other languages she/he may know.
Autonomy of judgement
The student will be able to check for him/herself the correctness of his/her own classifications and correct any errors.
Communication skills
The student will be able to discuss word formation processes with appropriate terminology.
Learning skills
The student will be able to independently pursue the study of word formation mechanisms and extend types, tokens and reference languages.

SYLLABUS

Hrs	Frontal teaching
5	Introduction to Lexical morphology
Hrs	Workshops
25	Data-oriented observation of speech segments
20	Data classification