

Subject card

Subject name and code	Linguistic Foundations of NLP, PG_00184238						
Field of study	English Studies						
Date of commencement of studies	October 2027		Academic year of realisation of subject		2027/2028		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		English		
Semester of study	2		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Joanna Redzimska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		2.0		18.0	50
Subject objectives	The aim of the course is to acquaint students with the linguistic foundations of natural language processing, including computational linguistic resources, the linguistic aspects of tools and systems, as well as the principles of their creation and the ways in which they can be analyzed.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FAMU2_U02] Can apply knowledge in the field of linguistics and literature in solving practical problems in the field of the chosen specialty.	Student is able to apply linguistic knowledge to solve practical tasks related to natural language processing	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[FAMU2_W07] Knows and understands to an in-depth extent selected issues constituting advanced detailed knowledge in the field of linguistics, including, in particular, research into the English language.	Student knows and understands in depth selected issues constituting advanced specialized knowledge in the field of linguistic foundations of natural language processing.	[SW4] test/exam - oral or written
	[FAMU2_W05] Knows and understands advanced terminology in the field of linguistics, in particular those used in English language studies.	Student has an in-depth knowledge and understanding of advanced linguistic terminology related to linguistic foundations of natural language processing.	[SW4] test/exam - oral or written
	[FAMU2_U04] Can select and apply information and communication techniques (ICT) during the acquisition and processing of information for research and professional purposes within the framework of English Studies.	Student is able to select and use information and communication technologies to acquire and process information for research and professional purposes in connection to linguistic foundations of natural language processing.	[SU2] presentation/project/paper/report
	[FAMU2_U05] Can use and present orally and in writing knowledge in the field of auxiliary and related sciences, which is a context for English linguistic and literary studies and supports the professional work of an English philologist.	Student is able to apply and present in an oral or written form knowledge related to linguistic foundations of natural language processing.	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[FAMU2_K01] Is ready to critically evaluate the extent of their knowledge and skills, in particular in the field of English-language linguistics and literature and English.	Student is able to critically evaluate his/ her knowledge and skills in connection to linguistic foundations of natural language processing.	[SK2] presentation/project/paper/report
	[FAMU2_K02] Is prepared to recognise the importance of knowledge and skills in English Studies in solving cognitive and practical problems and to seek the advice of a supervisor in their chosen place of work in the event of difficulty in solving problems on their own.	Student is prepared to acknowledge the importance of knowledge and skills in English studies when solving cognitive and practical problems, and to seek the advice of an academic supervisor or workplace mentor if unable to resolve problems independently."	[SK2] presentation/project/paper/report [SK4] test/exam - oral or written
Subject contents	An introduction to dictionaries used in computational processing of natural language: WordNet, FrameNet, VerbNet, and the Polish valency dictionary <i>Walenty</i> . Students will be familiarised with tools for morphological analysis, including morphological analyzers, inflectional dictionaries, and lemmatization. Parsers and treebanks will also be presented. In addition, issues such as automatic detection of coreferential expressions and speech analysis and synthesis will be introduced. Practical information retrieval in a corpus. A comparison of a corpus with an ontology. The role of transformers.		
Prerequisites and co-requisites	C1-level proficiency in English the selection of NLP line of studies		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	a presentation/ project	51.0%	40.0%
	an oral examination	51.0%	60.0%

Recommended reading	Basic literature	Biber D., Conrad S., Reppen R., 1998, Corpus Linguistics: Investigating Language Structure and Use, Cambridge. Hockey S., 2000, Electronic Texts in the Humanities, Oxford University Press, Oxford, UK. McEnery T., 2015, Corpus Linguistics, Cambridge Univ. Press. Md Mahmud Hasa Crawford W., 2015, Doing Corpus Linguistics, Routledge. Piasecki Maciej. 2010. Automatyczne wydobywanie wiedzy o semantyce języka naturalnego z korpusów tekstu. W: Piotr Stalmaszczyk (red.), Metodologie językoznawstwa. Filozoficzne i empiryczne problemy w analizie języka. Łódź. (PDF) Transformers in Natural Language Processing
	Supplementary literature	Hajnicz E. 2011: Automatyczne tworzenie semantycznych słowników walencyjnych, Akademicka Oficyna Wydawnicza EXIT, Warszawa. Kondrak G., 2002, Algorithms for Language Reconstructions http://webdocs.cs.ualberta.ca/~kondrak/papers/thesis.pdf Pęzik P. 2012: Wyszukiwarka PELCRA dla danych NKJP, [w:] Przepiórkowski A., Bańko M., Górski R.L., Lewandowska-Tomaszczyk B. (red.) 2012: Narodowy Korpus Języka Polskiego, Wydawnictwo Naukowe PWN, Warszawa (online: http://nkjp.pl/index.php?page=3&lang=0, dostęp: 6 maja 2014). Pęzik P. 2013: Paradygmat dystrybucyjny w badaniach frazeologicznych. Powtarzalność, reprodukcja i idiomatyzacja, [w:] P. Stalmaszczyk (red.): Metodologie językoznawstwa. Ewolucja języka. Ewolucja teorii językoznawczych, Wydawnictwo Uniwersytetu Łódzkiego, Łódź, s. 143160.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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