Individual study plan

Name:

Partner Charles University

Year: **2024/25**

Programme: CS - Language Technologies and Computational Linguistics

code	course	ECTS	term	note	
Obligatory c	Obligatory courses				
NTIN066	Data Structures I	6	S		
NTIN090	Introduction to Complexity and Computability	4	W		
NPFL063	Introduction to General Linguistics	4	W		
NPFL067	Statistical Methods in Natural Language Processing I	5	W		
NPFL138	Deep learning	8	S		
	Diploma Thesis I	6	both		
	Diploma Thesis II	9	both		
	Diploma Thesis III	15	both		

TOTAL for obligatory courses (without thesis related 27

Core elective courses - the student needs to obtain at least 42 credits in total for the elective courses.

Of these 42 required credits, at least 24 credits must be obtained from the following set:

NPFL006Introduction to Formal Linguistics3wNPFL038Fundamentals of Speech Recognition and Generation5wNPFL068Statistical Methods in Natural Language Processing II5sNPFL070Language Data Resources4wNPFL075Dependency Grammars and Treebanks3sNPFL079Algorithms in Speech Recognition5sNPFL083Linguistic Theory and Grammar Formalisms5sNPFL087Statistical Machine Translation5sNPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5wNPFL128Language technologies in practice4s		• •			<u> </u>
NPFL068Statistical Methods in Natural Language Processing II5sNPFL070Language Data Resources4wNPFL075Dependency Grammars and Treebanks3sNPFL079Algorithms in Speech Recognition5sNPFL083Linguistic Theory and Grammar Formalisms5sNPFL087Statistical Machine Translation5sNPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5w	NPFL006	Introduction to Formal Linguistics	3	W	
NPFL070Language Data Resources4wNPFL075Dependency Grammars and Treebanks3sNPFL079Algorithms in Speech Recognition5sNPFL083Linguistic Theory and Grammar Formalisms5sNPFL087Statistical Machine Translation5sNPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5w	NPFL038	Fundamentals of Speech Recognition and Generation	5	W	
NPFL075Dependency Grammars and Treebanks3sNPFL079Algorithms in Speech Recognition5sNPFL083Linguistic Theory and Grammar Formalisms5sNPFL087Statistical Machine Translation5sNPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5w	NPFL068	Statistical Methods in Natural Language Processing II	5	S	
NPFL079Algorithms in Speech Recognition5sNPFL083Linguistic Theory and Grammar Formalisms5sNPFL087Statistical Machine Translation5sNPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5w	NPFL070	Language Data Resources	4	W	
NPFL083Linguistic Theory and Grammar Formalisms5sNPFL087Statistical Machine Translation5sNPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5w	NPFL075	Dependency Grammars and Treebanks	3	S	
NPFL087 Statistical Machine Translation 5 s NPFL093 NLP Applications 4 s NPFL094 Morphological and Syntactic Analysis 3 w NPFL099 Statistical Dialogue Systems 4 w NPFL103 Information Retrieval 5 w	NPFL079	Algorithms in Speech Recognition	5	S	
NPFL093NLP Applications4sNPFL094Morphological and Syntactic Analysis3wNPFL099Statistical Dialogue Systems4wNPFL103Information Retrieval5w	NPFL083	Linguistic Theory and Grammar Formalisms	5	S	
NPFL094 Morphological and Syntactic Analysis 3 w NPFL099 Statistical Dialogue Systems 4 w NPFL103 Information Retrieval 5 w	NPFL087	Statistical Machine Translation	5	S	
NPFL099 Statistical Dialogue Systems 4 w NPFL103 Information Retrieval 5 w	NPFL093	NLP Applications	4	S	
NPFL103 Information Retrieval 5 w	NPFL094	Morphological and Syntactic Analysis	3	W	
	NPFL099	Statistical Dialogue Systems	4	W	
NPFL128 Language technologies in practice 4 s	NPFL103	Information Retrieval	5	W	
	NPFL128	Language technologies in practice	4	S	

TOTAL offer of core elective courses:

Supplementary elective courses - the student needs to obtain at least 42 credits in total for the elective courses. Of these 42 required credits, at least 2 credits must be obtained from the following set:

NPFL082	Information Structure of Sentences and Discourse Structure	2	S	
NPFL095	Modern Methods in Computational Linguistics	3	W	
NPFL097	Unsupervised Machine Learning in NLP	3	W	
NPFL100	Variability of Languages in Time and Space	2	W	
NPFL139	Deep Reinforcement Learning	8	S	
NPFL140	Large Language Models	3	S	
NPGR036	Computer Vision	5	S	
NAIL025	Evolutionary Algorithms I	5	W	
NAIL069	Artificial Inteligence I	4	W	
NAIL070	Artificial Inteligence II	3	S	
NAIL104	Probabilistic Graphical Models	3	W	
NAIL131	Ethics of AI+	2	both	
NPGR069	Company Project	6	both	
NPGR070	Research Project	9	both	
NPGR071	Software Project	12	both	

TOTAL offer of supplementary elective courses: 70

Recommended free courses (not counted as elective):

NPFL012	Introduction to Computer Linguistics	3	W	Bc course
NPFL101	Competing in Machine Translation	3	W	Bc course
NPFL123	Dialogue Systems	5	S	Bc course
NPFL124	Natural Language Processing	4	S	Bc course
NPFL125	Introduction to Language Technologies	3	W	Bc course
NPFL129	Introduction to Machine Learning with Python	5	W	Bc course
NPFL141	Linguistics	2	S	
NJAZ097	Czech for Beginners I	3	W	
NJAZ098	Czech for Beginners II	3	S	

TOTAL for additional courses: 31

TOTAL offer of courses:	183	Enrolled courses:
elective courses:	125	elective courses:

Each student must pass all obligatory courses PLUS collect at least 42 credits for elective courses

- at least 24 credits from the set of core elective courses and
- at least 2 credits from the set of supplementary courses

In total, each student must collect 90 credits for courses and 30 credits for diploma thesis.

Offer of free courses - please check the Student Information System

(all courses provided by the Faculty of Mathematics and Physics are available as free courses):

https://is.cuni.cz/studium/eng/predmety/index.php