SYLLABUS – A COURSE DESCRIPTION

I. General information

1. Course name: **Specialized statistical tools for linguists**
2. Course code:
3. Course type (compulsory or optional): **compulsory**
4. Study programme name: **Language, Mind, Technology**
5. Cycle of studies (1st or 2nd cycle of studies or full master's programme): **2nd**
6. Educational profile (general academic profile or practical profile): **general academic**
7. Year of studies (if relevant): **1st**
8. Type of classes and number of contact hours: practical classes: **30 hours**
9. Number of ECTS credits: **7**
10. Name, surname, academic degree/title of the course lecturer/other teaching staff: **Dr. Kamil Kaźmierski**
11. Language of classes: **English**
12. Online learning – yes (partly – online / fully – online) / no: **no**

II. Detailed information

1. Course aim (aims):

The aim of the course is to give students hands-on experience with a variety of statistical tools appropriate to the analysis of linguistic data in the R statistical environment.

2. Pre-requisites in terms of knowledge, skills and social competences (if relevant):

Familiarity with basic statistical concepts and with the R statistical environment.

3. Course learning outcomes (EU) in terms of knowledge, skills and social competences and their reference to study programme learning outcomes (EK):

Course learning outcome symbol (EU)	**On successful completion of this course, a student will be able to:**	**Reference to study programme learning outcomes (EK)**
01	Perform binomial and multinomial logistic regression	K_W06; K_W12; K_UO16
02	Apply conditional inference trees and random forests	K_W06; K_W12; K_UO16
03	Perform cluster analysis	K_W06; K_W12; K_UO16
04	Make maps and perform multidimensional scaling	K_W06; K_W12; K_UO16
05	Perform Principle Component Analysis and Factor Analysis	K_W06; K_W12; K_UO16
06	Perform simple and multiple correspondence analysis	K_W06; K_W12; K_UO16

4. Learning content with reference to course learning outcomes (EU)

Course learning content:	**Course learning outcome symbol (EU)**
Binomial logistic regression: Probabilistic multifactorial grammar and lexicology	01
Multinomial logistic regression: Models of three and more near synonyms	01
Conditional inference trees and random forests of three English causative constructions	02
Behavioural profiles, distance metrics and cluster analysis of English analytic causatives	03
Language and space: Dialects, maps and Multidimensional Scaling	04
Register variation in the British National Corpus	05
Register variation of Basic Colour Terms & Visualization of exemplars and prototypes of lexical categories	06

5. Rexading list:
   - Baayen, R. H. 2008. *Analyzing linguistic data*. Cambridge: Cambridge University Press.
   - Levshina, Natalia. 2015. *How to do Linguistics with R. Data exploration and statistical analysis*. John Benjamins.
   - Wickham, H. & Grolemund, G. 2016. R for data science. Sebastopol, CA: O'Reilly

III. Additional information

1. Teaching and learning methods and activities to enable students to achieve the intended course learning outcomes (please indicate the appropriate methods and activities with a tick and/or suggest different methods)

Teaching and learning methods and activities	**X**
Lecture with a multimedia presentation	X
Interactive lecture	
Problem – based lecture	
Discussions	
Text-based work	X
Case study work	X
Problem-based learning	
Educational simulation/game	
Task – solving learning (eg. calculation, artistic, practical tasks)	X
Experiential work	
Laboratory work	
Scientific inquiry method	
Workshop method	x
Project work	X
Demonstration and observation	
Sound and/or video demonstration	
Creative methods (eg. brainstorming, SWOT analysis, decision tree method, snowball technique, concept maps)	
Group work	X
Other (please specify) -	
…	

2. Assessment methods to test if learning outcomes have been achieved (please indicate with a tick the appropriate methods for each LO and/or suggest different methods)

Assessment methods	**Course learning outcome symbol**					
Written exam						
Oral exam						
Open book exam						
Written test						
Oral test						
Multiple choice test						
Project	01	02	03	04	05	06
Essay						
Report						
Individual presentation	01	02	03	04	05	06
Practical exam (performance observation)						
Portfolio						

Other (please specify) -						
…						

3. Student workload and ECTS credits

Activity types		Mean number of hours spent on each activity type
Contact hours with the teacher as specified in the study programme		30
Independent study*	Preparation for classes	50
	Reading for classes	40
	Essay / report / presentation / demonstration preparation, etc.	30
	Project preparation	30
	Term paper preparation	
	Exam preparation	
	Other (please specify) -	
	…	
Total hours		180
Total ECTS credits for the course		7

* please indicate the appropriate activity types and/or suggest different activities

4. Assessment criteria in accordance with AMU in Poznan's grading system:

Very good (bdb; 5,0): student knows and understands the concepts very well, can successfully apply them

Good plus (+db; 4,5): student knows and understands the concepts very well, can successfully apply them, but makes small errors

Good (db; 4,0): student knows and understands the concepts well, can successfully apply them, but makes occasional errors

Satisfactory plus (+dst; 3,5): student knows and understands the concepts on a basic level, can apply them on a satisfactory level, but makes errors

Satisfactory (dst; 3,0): student knows and understands the concepts on a basic level, can apply them on a basic level, but makes errors

Unsatisfactory (ndst; 2,0): student does not know or understand the concepts and cannot apply them without making gross errors