

SYLLABUS – A COURSE DESCRIPTION

I. General information

1. Course name: **Quantitative research methods for medical humanities**
2. Course code:
3. Course type (compulsory or optional): **compulsory**
4. Study programme name: **Language and communication in healthcare**
5. Cycle of studies (1st or 2nd cycle of studies or full master's programme): **2nd cycle of studies**
6. Educational profile (general academic profile or practical profile): **general academic**
7. Year of studies (if relevant): **1MA**
8. Type of classes and number of contact hours (e.g. lectures: 15 hours; practical classes: 30 hours):
interactive lecture: 15 hours
9. Number of ECTS credits: **2**
10. Name, surname, academic degree/title of the course lecturer/other teaching staff: **dr hab. Karolina Krawczak-Glynn**
11. Language of classes: **English**
12. Online learning – yes (partly – online / fully – online) / no: **it is possible to have some of the classes online**

II. Detailed information

1. Course aim (aims):
 - i. increase the students' understanding of quantitative methods in medical humanities
 - ii. enable the students to formulate testable research questions and hypotheses
 - iii. enable the students to employ various statistical methods in R to explore data, address research questions, and test hypotheses in medical humanities
2. Pre-requisites in terms of knowledge, skills and social competences (if relevant):
English at B2 level
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)
EU_1	Develop hypotheses, research questions, with specific focus on medical humanities (e.g., in analyses of discourses of health-related issues, language use in the global pandemic crisis, etc.)	K_W01, K_W02, K_W03 K_U01, K_U03 K_K01
EU_2	Test research questions and hypotheses in medical humanities by submitting data to statistical analyses in R, a free statistical software environment	K_W01, K_W02, K_W03, K_U02,
EU_3	Collect data in medical humanities and prepare the data for analysis	K_W01, K_W02, K_W03 K_U03
EU_4	Understand fundamental statistical concepts relevant to categorical statistics employed for medical humanities	K_W02, K_W03 K_U05,
EU_5	Perform selected exploratory and confirmatory statistical analyses in R for categorical data in medical humanities	K_W03 K_U03
EU_6	Present and report quantitative results of research in medical humanities according to the standards of academic writing	K_W02, K_W03, K_U02, K_U05, K_U06
EU_7	Understand quantitative results reported in scientific and non-scientific publications	K_W02, K_W03, K_U03, K_K01

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

Course learning content:	Course learning outcome symbol (EU)
1. Introduction and study design for quantitative research (2hrs): The benefits of using quantitative methods in research Operationalization of research questions & formulation of testable hypotheses Basic concepts in statistics (types of data, types of variables, types of errors)	EU_1, EU_4, EU_7

2. Taking first steps in R (2hrs): installing packages loading data inspecting your data in R handling your data bivariate tests for statistical significance	EU_2, EU_6
3. Multivariate analyses: Exploration of categorical data in medical humanities (5hrs) Visualizing and identifying patterns within your sample Interpreting and reporting the results	EU_1, EU_3, EU_5, EU_6
4. Multivariate analyses: Confirmatory statistics for categorical data in medical humanities (6hrs) Identifying statistically significant patterns beyond the sample Interpreting and reporting the results	EU_1, EU_2, EU_3, EU_5, EU_6, EU_7

5. Reading list:

- Baayen, Harald. 2008. *Analyzing linguistic data: A Practical Introduction to Statistics*. Cambridge: Cambridge University Press.
- Glynn, D. & J. Robinson (Eds.). 2014. *Corpus methods for semantics: Quantitative studies in polysemy and synonymy*. Amsterdam: John Benjamins.
- Gries, Stefan. 2009. *Statistics for linguistics with R*. Berlin: De Gruyter Mouton.
- Levshina, Natalia. 2015. *How to do linguistics with R. Data exploration and statistical analysis*. Amsterdam: John Benjamins.

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	
Interactive lecture	x
Problem – based lecture	
Discussions	x
Text-based work	
Case study work	x
Problem-based learning	x
Educational simulation/game	
Task – solving learning (eg. calculation, artistic, practical tasks)	x
Experiential work	
Laboratory work	
Scientific inquiry method	x
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)	x
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
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	EU_01	EU_02	EU_03	EU_04	EU_05	EU_06	EU_07
Written exam							
Oral exam							
Open book exam							
Written test							
Oral test							
Multiple choice test							
Project	x	x	x	x	x	x	x
Essay							
Report	x	x	x	x	x	x	x
Individual presentation							
Practical exam (performance observation)							
Portfolio							
Other (please specify) -							
In-class tasks	x	x		x	x	x	x

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		15hrs
Independent study*	Preparation for classes	~10hrs
	Reading for classes	~5hrs
	Essay / report / presentation / demonstration preparation, etc.	~15hrs
	Project preparation	~15hrs
	Term paper preparation	
	Exam preparation	
	Other (please specify) -	
	...	
Total hours		60
Total ECTS credits for the course		2

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

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

Very good (bdb; 5,0):

- i. A student understands all the concepts discussed in class
- ii. A student has mastered all the quantitative methods covered in class and can apply them to his or her own data, interpret and discuss the results without any problems
- iii. A student's final project and report are excellent with no shortcomings present (comprehensive introduction with clear research questions and hypotheses, flawless analysis, perfect presentation of the results, full professionalism)
- iv. A student has successfully completed all in-class tasks without any help
- v. A student is always prepared in class and ready to participate and contribute to in-class discussions and tasks
- vi.

Good plus (+db; 4,5):

- i. A student understands (almost) all the concepts discussed in class
- ii. A student has mastered all the quantitative methods covered in class and can apply them to his or her own data, interpret and discuss the results with possible minor problems
- iii. A student's final project and report are very good with only minor shortcomings
- iv. A student has successfully completed all in-class tasks, with some possible help from the instructor or his/her peers needed at times
- v. A student is always prepared in class and ready to participate and contribute to in-class discussions and tasks

Good (db; 4,0):

- i. A student understands most of the concepts discussed in class without much additional explanation from the instructor
- ii. A student can apply all or most of the quantitative methods covered in class to his or her own data, interpret and discuss the results, but needs some assistance from the instructor
- iii. A student's final project and report are good with some shortcomings
- iv. A student has successfully completed all in-class tasks, possibly with the help from the instructor or his/her peers
- v. A student is normally prepared in class and ready to participate and contribute to in-class discussions and tasks

Satisfactory plus (+dst; 3,5):

- i. A student has problems understanding the concepts discussed in class, even with additional explanation
- ii. A student has some problems both applying some of the quantitative methods covered in class to his or her own data, and interpreting or discussing the results]
- iii. A student's final project and report have some major shortcomings
- iv. A student has problems completing the in-class tasks
- v. A student is rarely well prepared in class and / or rarely participates or contributes to in-class discussions and tasks

Satisfactory (dst; 3,0):

- i. A student has significant problems understanding the concepts discussed in class, even with additional explanation
- ii. A student has significant problems both applying most of the quantitative methods covered in class to his or her own data and interpreting or discussing the results
- iii. A student's final project and report have many significant shortcomings
- iv. A student has significant problems completing the in-class tasks
- v. A student is rarely prepared in class and / or rarely participates or contributes to in-class discussions and tasks

Unsatisfactory (ndst; 2,0):

- i. A student fails to understand the concepts discussed in class
- ii. A student is unable to apply any of the quantitative methods covered in class to his or her own data and / or is incapable of interpreting and discussing the results
- iii. A student's final project and report is inadequate in terms of at least two of the following criteria: (a) Introduction (clear research questions and hypotheses, their importance explained); (b) Analysis; (c) Results and discussion; (d) professionalism (language and form).
- iv. A student is incapable of completing the in-class tasks without significant help from the instructor or his/her peers
- v. A student is almost always unprepared in class and / or reluctant to participate or contribute to in-class discussions and tasks