

Methodology of Scientific Research (D012718)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size	<i>(nominal values; actual values may depend on programme)</i>		
Credits 4.0	Study time 100 h	Contact hrs	50.0 h

Course offerings and teaching methods in academic year 2020-2021

A (semester 2)	Dutch	Gent	lecture	18.75 h
			lecture: plenary exercises	2.5 h
			guided self-study	7.5 h
			seminar: practical PC room classes	13.75 h

Lecturers in academic year 2020-2021

Coorevits, Pascal	GE39	lecturer-in-charge
Meeus, Mira	GE37	co-lecturer
Van de Velde, Dominique	GE37	co-lecturer
Van Oosterwijck, Jessica	GE37	co-lecturer

Offered in the following programmes in 2020-2021

	crdts	offering
Bachelor of Science in Rehabilitation Sciences and Physiotherapy	4	A

Teaching languages

Dutch

Keywords

methodology
biostatistics
Evidence Based Medicine
searching for scientific literature
research datamanagement

Position of the course

In this course the inferential statistics and basic tests, as well as the practical applications and data management are taught.
Qualitative research is discussed.

More advanced scientific literature research methods are taught.
Relevant aspects of research datamanagement are taught.

Contents

Partim Introduction to EBM:

- Evidence Based Medicine
- More advanced principles of searching literature
- Qualitative research (research questions, datacollection techniques, research philosophy, sampling techniques, data-analysis techniques and quality criteria)

Partim Statistics:

- Inferential statistics
- Univariate hypothesis tests
- Practical applications in SPSS

Initial competences

- Forknowledge is based on the endterms of EBM and statistics 1.
- Passive use of English language

- General knowledge of the use of pc and internet

Final competences

- 1 Knowing the general principles of scientific research
- 2 Recognizing different study designs and reflect on the quality
- 3 Search sensitively and specifically for scientific literature in different medical databases.
- 4 Having insight in the different methods in qualitative research and in the accompanying research ethics.
- 5 Having insights in the data-analysis of qualitative research data
- 6 Knowledge of the foundations of inferential statistics
- 7 Being able to conduct and interpret basic and more advanced statistical analyses
- 8 Being able to use SPSS when conducting the statistical analyses and applications
- 9 The student has insights in the relevant aspects of research datamanagement with regard to evidence based medicine and statistics

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Guided self-study, lecture, lecture: plenary exercises, seminar: practical PC room classes

Extra information on the teaching methods

EBM: Guided selfstudy: through blended learning based on literature and learning path

Learning materials and price

- Statistische Gegevensverwerking met behulp van IBM SPSS Statistics, E. Deschepper et al (+/- 20 euro)
- Health Literacy. from reference to review. Mira Meeus & Nick Gebruers. Acco 2016 (+/- 50 euro)

References

- Inleiding in Evidence Based Medicine: Klinisch handelen gebaseerd op bewijsmateriaal. Scholten et al. BSL 2014

Course content-related study coaching

Electronically via online learning platform

Evaluation methods

end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period

Written examination, skills test

Examination methods in case of periodic evaluation during the second examination period

Written examination, skills test

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Calculation of the examination mark

The final mark is the weighted average of the partim EBM (30%) and Statistics (70%). When the student has a score of less than 9/20 for any of the 2 separate components, the student can no longer pass the course. When the final mark is a value of 10 or more on 20, the final score will be reduced to 9/20.