Course Specifications
Valid as from the academic year 2017-2018

Research Methodology (D012476)

Course offerings in academic year 2018-2019
A (semester 1) Dutch

Lecturers in academic year 2018-2019
De Bacquer, Dirk GE12 lecturer-in-charge
Brusselle, Guy GE01 co-lecturer
Clays, Els GE12 co-lecturer
Coorevits, Pascal GE12 co-lecturer
Willems, Sara GE21 co-lecturer

Offered in the following programmes in 2018-2019

Bachelor of Science in Medicine

Teaching languages
Dutch

Keywords
Medical Statistics, Epidemiology, Methodology, Study design

Position of the course
To provide the basic knowledge allowing the student to critically assess medical literature and to participate in a scientific project.

Contents
1. Medical Statistics
   • ANOVA
   • Multiple linear regression
   • Binary logistic regression
   • Practical applications in SPSS
2. Epidemiology
   • Introduction, frequency measures
   • Risk concept
   • Measures of association
   • Precision and validation
   • Observational epidemiology
3. Methodology of clinical scientific research
   • Formulation of research question
   • Selection of study population and outcomes
   • Quantitative research: intervention studies (RCT)
   • Quantitative research: observational studies
   • Qualitative research
   • Reporting of results; Research funding
   • Ethics; Good Clinical Practice (GCP)

Initial competences
Knowledge of: information sources, medical decision making, descriptive medical statistics.
This information is provided in year 1 and 2.

Final competences
1. Define and set up epidemiological and clinical studies
2. Correctly interpret results from epidemiological and clinical studies

Course size (nominal values; actual values may depend on programme)

Credits 4.0 Study time 120 h Contact hrs 44.0 h

Teaching languages

Dutch

Keywords

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   • Quantitative research: observational studies
   • Qualitative research
   • Reporting of results; Research funding
   • Ethics; Good Clinical Practice (GCP)

Initial competences

Knowledge of: information sources, medical decision making, descriptive medical statistics.
This information is provided in year 1 and 2.

Final competences

1. Define and set up epidemiological and clinical studies
2. Correctly interpret results from epidemiological and clinical studies
3 Critical appraisal of literature in health sciences

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

Learning materials and price

**Syllabi:**
- Unit-book “Methodologie van het wetenschappelijk onderzoek”.
- Statistische Gegevensverwerking met behulp van IBM SPSS Statistics 23, Ellen Deschepper et al.

**A-books:**

**Other:** see electronic learning environment Minerva (minerva.ugent.be)

References


Course content-related study coaching

Chairman of the Unit-commission:
Prof. dr. F. De Keyser
tel. 09/332.22.30
e-mail: filip.dekeyser@ugent.be

Evaluation methods

end-of-term evaluation

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

Written examination with open questions, written examination with multiple choice questions

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

Written examination with open questions, written examination with multiple choice questions

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Calculation of the examination mark

The course consists of three parts: 'Medical Statistics', 'Epidemiology' and 'Methodology of Clinical Scientific Research'.
The final result is determined as follows:
If the student achieves at least 50% for each part, the final result is then the weighted arithmetic mean of the three parts.
If the student does not achieve at least 50% for each part, then:
- If the number of deficits = 1 or 2, the final result remains the weighted arithmetic mean of the three parts.
- If the number of deficits > 2, then the final result is reduced by a number y. The number y is obtained by adding the number of deficits and reducing this total by 2 (deficit points are the number of points that a student has too short to reach 10 at 20, and this for each part).

(Approved)