Course Specifications
Valid as from the academic year 2017-2018

Research Methodology (D012476)

Course

Specifications

Lecturers in academic year 2017-2018
- 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 2017-2018

Bachelor of Science in Medicine

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<th>crds</th>
<th>offering</th>
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<td>4</td>
<td>A</td>
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Course offerings in academic year 2017-2018
A (semester 1) Dutch

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)

<table>
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<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
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<tr>
<td>4.0</td>
<td>120 h</td>
<td>44.0 h</td>
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(Approved)
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)