GHENT UNIVERSITY

# Course Specifications

Valid as from the academic year 2020-2021

## Introduction to Statistics (D012288)

**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** *(nominal values; actual values may depend on programme)*

**Credits 3.0** **Study time 90 h** **Contact hrs** 15.0 h

**Course offerings and teaching methods in academic year 2020-2021**

| | | | | |
|---|---|---|---|---|
| A (semester 2) | Dutch | Gent | seminar: practical PC room classes | 37.5 h |

**Lecturers in academic year 2020-2021**

| | | |
|---|---|---|
| Coorevits, Pascal | GE39 | lecturer-in-charge |

| **Offered in the following programmes in 2020-2021** | **crdts** | **offering** |
|---|---|---|
| Bachelor of Science in Speech Language and Hearing Sciences (main subject Audiology) | 3 | A |
| Bachelor of Science in Speech Language and Hearing Sciences (main subject Logopaedics) | 3 | A |

**Teaching languages**

Dutch

**Keywords**

Input of data, datacleaning,Descriptive numerical and graphical statistics, inferential statistics, scientific integrity, research datamanagement

**Position of the course**

**Contents**

Design (structure) of datasets
Working with syntax (SPSS)

Descriptive Biostatistics:
1. Introductory concepts
2. Aspects of datacleaning
3. Summarising data
4. Graphical representations
5. Distribution functions

Inferential Biotatistics:
1. Estimators, standard error
2. Central limit theorem
3. Confidence intervals
4. Unpaired versus paired tests
5. Parametric versus nonparametric tests
6. Correlation
7. integrated practical exercises

**Initial competences**

Basic knowledge in mathematics is strongly recommended.

**Final competences**

1 Students understand and can explain basic statistical techniques
2 Students are able to propose a proper data structure
3 Students can undertake necessary actions to perform datacleaning
4 Students are able – based on arguments – to choose a statistical technique

5 Students are able to present proper descriptive statistics (numerical and graphical)
6 Students are able to execute basic statistical analysis
7 Students are able to interpret results, come to a profound conclusion and describe this in a scientific way
8 Students can correctly build up a syntax in SPSS (and complement it with sufficient comments)
9 Students have insights in basic concepts of research datamanagement with regard to statistics

**Conditions for credit contract**

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

Conditions for exam contract

Access to this course unit via an exam contract is unrestricted

**Teaching methods**

Seminar: practical PC room classes

**Extra information on the teaching methods**

Theory and practical sessions are interwoven. All classes take place in the computerclass. Active participation is expected.

**Learning materials and price**

Statistische Gegevensverwerking met behulp van IBM SPSS, Coorevits P, Buysse H en De Schepper E. (kostprijs +/- 20 euro)

**References**

**Course content-related study coaching**

Personal contact during and after courses or via Ufora (discussion forum).

**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

**Extra information on the examination methods**

The exam takes place in the computerclass. Students have to make use of SPSS to a. o. show their practical skills.

**Calculation of the examination mark**

Theoretical AND practical part.
One has to pass for both parts. Having for one part less than 10/20, one cannot pass for the entire exam. In this case, should the final score be 10 or an even higher score on 20, the score will be reduced to the highest non-passed score.