Statistics for Business I (F710221)

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

Credits 3.0   **Study time 90 h**

Course offerings and teaching methods in academic year 2025-2026

| A (semester 2) | Dutch | Gent | seminar |
| | | | lecture |

Lecturers in academic year 2025-2026

Vandenboer, Kristine	EB21	staff member
Carette, Philippe	EB21	lecturer-in-charge
Van der Stricht, Geert	EB21	co-lecturer
Van Ooteghem, Saskia	EB21	co-lecturer

Offered in the following programmes in 2025-2026

	crdts	offering
Bachelor of Science in Business Administration	3	A
Preparatory Course Master of Science in Business Administration	3	A

Teaching languages

Dutch

Keywords

Mathematics, Statistics

Position of the course

This course is the first of a series of three courses in the overall statistics education in the Bachelor Business Administration.
It aims to familiarize students with the statistical concepts and methods used in many areas in society and economic analysis.
The statistical concepts and techniques are presented in a systematic way, with continued focus on the logic and coherence of the various concepts.
The concepts are well illustrated with applications.

Contents

Describing data
- Scales of measurement, frequency distributions, graphs, cumulative frequency.
- Measures of central tendency: mode, median, arithmetic mean, quantiles.
- Measures of dispersion: range, variance, standard deviation, interquartile range.
- Chebyshev's rule and empirical rule.
- Graphical representations of data.
- Z-score and coefficient of variation.

Probability
- Events, sample space and probability
- Probability rules, Bayes' rule

Random variables
- Discrete and continuous variables
- Binomial distribution
- Normal distribution
- Normal approximation to the binomial distribution
- Normal QQ-plot

Sampling distributions
- Unbiased estimators.
- The central limit theorem.

Initial competences

- A thorough knowledge of the building blocks of mathematics lessons in secondary education: numbers, elementary algebra and geometry.
- To be able to use and interpret the summation sign.

Final competences

1 Ability to organize, arrange and graphically represent data.
2 Ability to calculate measures and to understand which facet of the data they describe.
3 Ability to interpret graphs and statistical measures correctly and critically.
4 To understand and be able to apply basic concepts of probability.
5 Ability to calculate or approximate binomial and normal probabilities.
6 To understand sampling distributions and see the relevance of the central limit theorem.
7 To adopt an critical stance with respect to statistical information.

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, Lecture

Extra information on the teaching methods

Interactive plenary lectures: Discussion of the theoretical concepts, with the option of using the chat box to ask questions.
Guided exercises in groups: hands-on application of the concepts covered in the lectures.

Study material

Type: Handbook

Name: Statistiek, 14de editie
Indicative price: € 65
Optional: no
Language : Dutch
Alternative : Statistiek, 12th edition
Available through Student Association : Yes
Additional information: Also used in course unit "F710231 - Statistiek voor bedrijfskundigen II" and course unit "F710240 - Onderzoeksmethoden voor bedrijfskundigen II".

Type: Syllabus

Name: Oefeningenbundel Statistiek voor bedrijfskundigen I
Indicative price: € 5
Optional: no
Language : Dutch
Available through Student Association : No

References

Course content-related study coaching

- The instructors are always available at the end of the class to answer questions about the course.
- Tutorial: Extra classroom sessions are organised in which difficult topics of the course are revisited. Students can also make individual appointments to discuss specific problems in this course.
- Electronic discussion forum.
- Sample exam questions with solutions.

Assessment moments

end-of-term assessment

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

Written assessment

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

Written assessment

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

    not applicable

Extra information on the examination methods

    Written exam, consisting of essay questions and multiple choice questions.

Calculation of the examination mark

    periodic evaluation (100%)