

## Mathematics for Business I-A (F710219)

**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 1)	Dutch	Gent	lecture seminar
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**Lecturers in academic year 2025-2026**

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

**Offered in the following programmes in 2025-2026**

<a href="#">Bachelor of Science in Business Administration</a>	<b>crdts</b>	<b>offering</b>
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3                      A

**Teaching languages**

Dutch

**Keywords**

Mathematics, functions.

**Position of the course**

To provide students with a basic education in mathematics that is used in business economics. The mathematical concepts and techniques are presented in a rigorous way, with emphasis on the logic and coherence of the various concepts. The concepts are well illustrated with applications in business economics.

**Contents**

**Functions of one variable**

- General concepts: domain, image, injective function, inverse function, periodicity and symmetry.
- Special functions: polynomial functions, rational and irrational functions, exponential and logarithmic functions, trigonometric and cyclometric functions.
- Applications in business and economics: demand and supply, costs and revenues, market equilibrium, break-even point.
- Limits and continuity, asymptotes.

**Initial competences**

- To have thorough knowledge of the fundamental mathematical principles taught in high school: real numbers, algebra and geometry.
- To be proficient in symbolic calculation and solving equations.

**Final competences**

- 1 To have knowledge and understanding of the basic concepts of the univariate analysis: functions of one variable, limits, continuity, asymptotes, and their applications in economics.
- 2 To analyze and solve business economics problems in the field of comparative statics using mathematical methods from the univariate analysis.
- 3 To be able to clarify quantitative results and solutions, both graphically and in words.
- 4 To be able to critically evaluate quantitative results.

**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.

Guided exercises in small groups: Practicing the concepts covered in the lectures.

Part of the course is offered through a learning path and instructor-made video clips.

**Study material**

Type: Handbook

Name: Wiskunde voor bedrijfskundigen 1

Indicative price: € 45

Optional: no

Language : Dutch

Author : Philippe Carette

Available through Student Association : Yes

Additional information: Also used in course unit "F710220 - Wiskunde voor bedrijfskundigen I-B".

Type: Syllabus

Name: Oefeningenbundel Wiskunde voor bedrijfskundigen I-A

Indicative price: € 4

Optional: no

Language : Dutch

Available through Student Association : No

**References****Course content-related study coaching**

- A one week refresher course in basic mathematical techniques is offered in September.
- The instructors are always available at the end of the class to answer questions about the course.
- Electronic discussion forum.
- 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.
- A simulation exam is organized with the aim of testing the study method.

**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.

**Calculation of the examination mark**

periodic evaluation (100%)

