Financial Mathematics (F710039)

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	independent work
			lecture
			seminar

Lecturers in academic year 2025-2026

Carette, Philippe	EB21	lecturer-in-charge
Van der Stricht, Geert	EB21	co-lecturer

Offered in the following programmes in 2025-2026

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

Teaching languages

Dutch

Keywords

Mathematics, interest calculation, annuities

Position of the course

This course aims to provide students with the fundamental knowledge and understanding of the mathematical aspects of loans and investments.

Besides the practical applications there goes also attention to the theoretical structure of the used formulae. As such, the erroneous use of formulas can be avoided.

Contents

- Interest and discount calculation (simple and compound)
- Annuities and perpetuities.
- Loan amortisation and sinking funds.
- Bonds.

Initial competences

- To be proficient in symbolic calculation and in solving equations.
- To have knowledge and understanding of the foundations of calculus: linear and exponential functions, limits, derivatives, curve sketching.

Final competences

1 To know and understand the theoretical foundations of the discussed concepts in financial mathematics.
2 To be able to apply the mathematical methods and techniques of loans and investments.
3 To be able to compare financial products and to select the most advantageous one(s).
4 To be able to clarify and report quantitative results.
5 To be able to critically evaluate quantitative results.
6 To analyze financial problems and to represent them clearly.

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, Independent work

Extra information on the teaching methods

Interactive plenary lectures: Discussion of the theoretical concepts, with the option
of using the chatbox to ask questions.
Guided exercises in groups: practising the concepts covered in the lectures.
Guided self-study: The preparation for the guided exercises consists of studying a
number of model assignments via knowledge clips.

Study material

Type: Syllabus

Name: Theorie Financiële Rekenkunde
Indicative price: € 5
Optional: no
Language : Dutch
Available through Student Association : No

Type: Syllabus

Name: Oefeningenbundel Financiële rekenkunde
Indicative price: € 4
Optional: no
Language : Dutch
Available through Student Association : No

References

Course content-related study coaching

• Teachers are available for additional oral explanations after class.
• Electronic discussion forum.
• Sample exam questions with detailed 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.

Calculation of the examination mark

Periodic evaluation (100%).