Mathematics 2

Number	Workload	Credits	Semester	When offered	Duration
IBW 2.1	150 hrs	5 ECTS	2nd	Winter/summer semesters	1 semester

	Coursework (hrs/week)	Contact hours	Self-study	Language
1	a) Seminars: 3 b) Exercises: 1	4 hrs/week = 72 hrs	78 hrs	German/English

2 Learning outcomes

Students will be able to articulate the different ways of using classic mathematical disciplines in business and financial situations and for problem-solving. They will be able to differentiate the tools of business mathematics and use the production theory of managerial economics. Students will also be able to apply the methodologies learned to the many tasks involved in business planning, budgeting and decision-making.

3 Course content

- Functions of many variables
- Differential calculus of multivariable functions and multivariable optimization
- Production functions: theory and applications”
- Homogeneous functions and elasticity
- Principles of integral calculus
- Matrix and vector algebra
- Systems of linear equations
- Linear optimization

4 Teaching methods

Interactive seminar-like instruction, exercises, and case studies

5 Course prerequisites

Formal: None

Recommended: Module IBW 1.1 (Mathematics 1)

6 Type of examination

Written

7 Requirements for the award of credit hours

Passing grade on module examination

8 Course share of final grade: 5 / 175 (= 2.86%)