



Name of module	Mathematics
Responsible	M. Sc. Petra Clauß
Qualification goals	Students will be able to, <ul style="list-style-type: none">- understand the approaches of basic analysis- interpret and solve economic problems mathematically,- apply basic mathematical solution approaches to practical examples,- solve numerous exercise problems independently,- evaluate economic issues using mathematically calculated results.
Module Content	1 Equations and Inequalities 1.1 Algebraic equations 1.2 Solvable transcendental equations 1.3 Inequalities 2 Matrices and vectors 2.1 Basics 2.2 Solve linear systems of equations 3 Differential calculus 3.1 Rules for differentiation 3.2 Curve discussion 3.3 Extreme value calculation 3.4 Applied extreme value tasks
Teaching methods	<ul style="list-style-type: none">- Lectures- Supervised exercises- Self-study
Necessary Previous Knowledge	None
Literature	Mavron, V. C. and Phillips T., Elements of Mathematics for Economics and Finance, Springer, 2007
Author instructive letter	not necessary
Utilization	This module is particularly closely related to the following modules of the same degree program: <ul style="list-style-type: none">- Statistics- Microeconomic This module is also useful for other business-oriented courses at Schmalkalden University of Applied Sciences.
Student Work Load	Total workload: 150 hours, thereof: 1) synchronous teaching: 60 (classroom study) 2) asynchronous teaching: 90, thereof: <ul style="list-style-type: none">- preparation for the course (especially literature study): 20- follow-up of the course: 20- preparation of the exercises: 25- preparation of the exam: 25
European Credit Transfer Points	5 ECTS-Punkte; Course: International Business and Economics: 5/180
Method and Extent of Examination	Exam (60 Minutes (100%))
Semester	1. Semester
Frequency	each academic year
Duration	one Semester
Type of course (compulsory, choice etc.)	compulsory modul
Remarks	

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