

Modul-Nr./ Module-Code	BMSIB1800
Modulbezeichnung / Module title	Business Mathematics / Statistics
Semester or Trimester	2 nd
Dauer des Moduls / Duration of the module	1 semester
Art des Moduls (Pflicht, Wahl, etc.) / Module type (Compulsory, Elective etc.)	Compulsory subject
Ggfs. Lehrveranstaltungen des Moduls / If applicable: Sub-modules	-
Häufigkeit des Angebots des Moduls / The module is offered ...	Annually (summer semester)
Zugangsvoraussetzungen / Prerequisites for attending	None
Verwendbarkeit des Moduls für andere Module und Studiengänge / Applicability of the module for other modules and degree courses	Preparatory course for further mathematically oriented subjects in 'Baltic Management Studies'
Modulverantwortliche/r / Lecturer in charge	Prof. Dr. Gero Szepannek
Name der/des Hochschullehrer/s / Name of the lecturer	Prof. Dr. Gero Szepannek
Lehrsprache / Language of Instruction	English
Zahl der zugeteilten ECTS credits / Number of ECTS credits	5
Gesamtworkload und ihre Zusammensetzung / Workload and its composition	150 hours (86 h self-study; 64 h contact time)
SWS / Semester periods per week	4
Art der Prüfung / Assessment methods	Written examination (2 hour)
Gewichtung der Note in der Gesamtnote / Weight in final grade	2 %
Qualifikationsziele des Moduls / Learning outcomes of the module	<p><u>Knowledge & Understanding:</u> Students gain essential insights about the following topics: Different data types and the aims and basic methods of descriptive statistics – As for basic mathematics, they can solve problems from financial maths, linear equation systems, matrix calculus, scalar product and optimisation.</p> <p><u>Applying knowledge and understanding</u> The theoretical knowledge in Basic Mathematics acquired is applied to business problems such as production, , taking management decisions or profit optimisation</p> <p><u>Making judgements</u> Correctness of mathematical problem description and system solvability must be</p>

	<p>judged; simple descriptions must be derived.</p> <p><u>Communication:</u> Results obtained are presented and discussed in class.</p> <p><u>Learning skills:</u> The work carried out in this module prepares students for formal treatment of economic problems in their further studies and in their job. It encourages them to individually pursue further mathematical analysis of economic situations. The students are able to describe and interpret the data for a given situation and to derive consequences for necessary resources and optimisation. They know the limitation of learnt methods and can appreciate the contribution of others.</p>
Inhalte des Moduls / Syllabus	Linear algebra, esp. matrix calculus, special matrices, linear equation systems and solvability; optimisation, algorithms and basic descriptive statistics location, scale, association and visualizations.
Lehr- und Lernmethoden des Moduls / Teaching Methods of the Module	2 hours per week lecture (seminar form) + 2 hrs/week exercises; accompanying tutorial
Besonderes / Special Features	Practical application of the methodology in PC labs.
Literatur / Literature	<ul style="list-style-type: none"> • http://www.metalproject.co.uk/ • Jürgen Tietze - Einführung in die angewandte Wirtschaftsmathematik. 17 Auflage, Springer, 2013. • Bernd Luderer und Uwe Würker: Einstieg in die Wirtschaftsmathematik, Springer, 2014.