

Modul-Nr./ Module Code	BMSB2600
Modulbezeichnung / Module title	Analytical Statistics
Semester / Trimester	3 rd
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-module	-
Häufigkeit des Angebots des Moduls / The module is offered	Annually (winter 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 the degree course
Modulverantwortliche/r / Lecturer in charge	Prof. Dr. Gero Szepanek
Name der/des Hochschullehrer/s / Name of the lecturer	Prof. Dr. Gero Szepanek
Lehrsprache / Language of instruction	English
Zahl der zugeteilten ECTS-Punkte / Number of ECTS credits	5
Gesamtworkload und ihre Zusammensetzung / Workload and its composition	150 hours (86 h self-study; 64 h contact time)
SWS / Contact hours per week	4
Art der Prüfung / Assessment methods	Written examination (2 hours)
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: analysing a single statistical variable_ / Probability and distributions / measures of location and variability / multidimensional data: correlation and regression / confidence interval / testing statistical hypothesis</p> <p><u>Applying knowledge and understanding</u> All theory acquired has to be applied to presenting and analysing statistical aspects of current national and international business situations.</p> <p><u>Making judgements</u> The discussion of current national and international business situations results in interpreting of statistical parameters.</p> <p><u>Communication:</u></p>

	<p>Results obtained are discussed in class.</p> <p><u>Learning skills:</u> The work carried out in this module prepares students for the more complex discussion in the Project-course and encourages them to individually pursue further statistical analysis of economic situations.</p>
Inhalte des Moduls / Syllabus	<p>The student is able to describe and interpret the data for a given observed situation with the help of statistical measures using appropriate software. He is also able to formulate a statistical hypothesis and test it using statistical software.</p>
Lehr- und Lernmethoden des Moduls / Teaching methods of the module	<p>2 hours/week lecture (seminar form) + 2 hours/week PC practical exercise</p>
Besonderes / Special features	<p>Practical application of the methodology in PC labs.</p>
Literatur / Literature	<ul style="list-style-type: none"> • D. Diez, C. Barr and M. C, etinkaya-Rundel: OpenIntro Statistics. 3rd Edition, 2016. • https://www.openintro.org/stat/textbook.php?stat_book=os, • J. Bley Müller and R. Weißbach: Statistik für Wirtschaftswissenschaftler. 17th Edition, Vahlen, Munich, 2014. • U. Genschel und C. Becker: Schließende Statistik, Springer, 2005. • D. Kahneman: Thinking Fast and Slow. Penguin, 2012. • J. Hedderich und L. Sachs: Angewandte Statistik, 14. Auflage, Springer, 2012