Modul-Nr./ Module Code	BMSB1800
Modulbezeichnung / Module title	**Data Literacy**
Semester / Trimester	2nd
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 (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	This course is a preparatory course for further mathematically oriented subjects in BMS.
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-Punkte / Number of ECTS credits	5
Gesamtworkload und ihre Zusammen-setzung / 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	Knowledge & Understanding: Students gain essential insights the computer-based analysis of data while using standard tools from the field of descriptive statistics. Applying knowledge and understanding Students are aware of the PPDAC problem solving cycle. The course addresses methodology by means of real-world examples and offers students the chance training the use of the methodology on use cases with data. Making judgements After the lecture the students are able to critically evaluate results of a data analysis in a broader context such as the origin of the data as well as its quality and representativity.

	Communication: Results obtained are presented and discussed in class. Learning skills: 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.
Inhalte des Moduls / Syllabus	Data representation, data quality, computer-based exploratory data analysis, dependence between variables, confounder variables variables and causality.
Lehr- und Lernmethoden des Moduls / Teaching methods of the module	2 h/week lecture (seminar form) + 2 h/week exercises; accompanying tutorial
Besonderes / Special features	Practical application of the methodology in PC labs.
Literatur / Literature	- Ben Jones (2020): Data Literacy Fundamentals: Understanding the Power & Value of Data, Data Literacy Pres. - Karsten Lübke, Martin Vogt (2014): Angewandte Wirtschaftsstatistik: Daten und Zufall (FOM-Edition) Taschenbuch, Springer Gabler. - Jordan Morrow (2021): Be Data Literate: The Data Literacy Skills Everyone Needs To Succeed, Kogan Page