

Module title Applied Data Science with Python			
Module code KDSP	Level Bachelor (B.Sc.)	ECTS credits 5	Duration block course + virtual lectures
Module instructor n.n.	Lecture type Guided tutorial sessions	Prerequisite(s) Basic knowledge of Mathematics and Computer programming	Grading Final project + presentation
Content 1. Online Lectures: (a) Python Basics: Data Structures, Conditions and Branching, Loops, Pandas, basics of Visualization (b) Data Science: Data Analysis, Data Cleaning, Machine learning (supervised and Unsupervised), Model evaluation 2. Online Course project: In this part of the course, students will work on a data science problem independently. Progress of the project will be evaluated based on the solution code, presentation and report.			
Upon the end of the module the students will have attained the following subject-matter competencies... <ul style="list-style-type: none"> ...to know the fundamentals of Python, the concept of data analysis (1), machine learning(1) , and the introduction of end-to-end pipelines for real-world data science product deployment (1). ...to perform data analysis (3) and modeling using python (3). 			
Upon the end of the module the students will have attained the following personal and social competencies... <ul style="list-style-type: none"> ...to read, write, and present in an academic environment in English language (3). ...to interactively discuss subject-matter topics with other students and reflect their viewpoints (3). ...to organize themselves independently (3) and to create work results with certain boundary conditions set for a given due date (3). 			
Textbook/software To be announced			

Note: this is not the official course descriptor according to the "Studien- und Prüfungsordnung" (SPO)