

Courses in English Course Description

Department	06 Applied Sciences and Mechatronics
Course title	Machine Learning
Course number	PSB390
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	Students learn about the most important methods of machine learning in order to be able to apply them in the context of physics.
Prerequisites	Computer Science I and II
Recommended reading	Amin Zollanvari, Machine Learning with Python: Theory and Implementation, Springer 2023
Teaching methods	seminaristic teaching with Jupyter Notebooks, simulation studies in exercises
Assessment methods	100% written exam 90', option of improvement through exercises
Language of instruction	English
Name of lecturer	Prof. Dr. Alfred Kersch
Email	akersch@hm.edu
Link	https://sci-intern.hm.edu/fk/modulbeschreibungen.php?lang_nr=&id=2169
Course content	Introduction and basics Data preparation and preprocessing Supervised learning Unsupervised learning
Remarks	The second part "deep learning" will be taught in the following summer semester