

Courses in English

Course Description

Department	06 Applied Sciences and Mechatronics
Course title	Systemmodellierung und Optimierung
Hours per week (SWS)	4
Number of ECTS credits	6
Course objective	Reduction of complex systems to do equation based modeling or data based modeling with Python
Prerequisites	Bachelor in physics or engineering
Recommended reading	D. Osinga, Deep Learning Cookbook, O'Reilly 2018, J. Frochte, Maschinelles Lernen: Grundlagen und Algorithmen in Python, Hanser 2019
Teaching methods	seminaristic teaching, internship for Python, simulation study in small team with written report
Assessment methods	40% written exam 90', 60% written report
Language of instruction	English
Name of lecturer	Prof. Dr. A. Kersch
Email	akersch@hm.edu
Link	https://t1p.de/joun
Course content	physical and mathematical modeling of systems, optimization and maschine learning, Python, own simulation study
Remarks	