Hochschule München University of Applied Sciences

Courses in English
Course Description

Department	07 Computer Science and Mathematics
Course title	**Advanced Operating Systems**
Course number	
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	With varying emphasis depending on the area of specialization: Students evaluate operating systems and select appropriate solutions Students combine virtualization solutions and justify their use in various environments Students assess the performance of a complex IT system Students develop high-performance software applications on various and specialized operating systems Students work on topics in small groups and present them Depending on the focus and with varying intensity: Students assess operating systems and choose suitable solutions Students combine virtualization techniques and justify their use in various IT environments Students develop high-performance software applications for different and specialized operating systems Students work on topics in teams and present them
Prerequisites	Computer Architecture, Operating System Basics
Recommended reading	
Teaching methods	
Assessment methods	oral exam
Language of instruction	English
Name of lecturer	
Email	
Link	https://zpa.cs.hm.edu/public/module/29/
Course content	The course covers specific, in-depth aspects of current operating systems and virtualization solutions. Taking current developments and trends into account, the course focuses on various topics, such as: The impact of modern computer architectures on the operating system (e.g., multicore processors, embedded systems) System virtualization, container-based virtualization, and orchestration File systems (e.g., journaling, snapshots) and distributed file systems Input/output systems and device drivers, device virtualization en: This module covers special, in-depth aspects of modern operating systems and virtualization technologies. Taking current developments and trends into account, different focus topics are covered, for example: Impact of computer architecture on operating systems (e.g., multicore, embedded systems) System virtualization, containerization, and orchestration File systems (e.g., journaling, snapshots) and distributed file systems Input/output systems and device drivers, device virtualization
Remarks	