Hochschule München University of Applied Sciences

Courses in English
Course Description

Department	03 Mechanical, Automotive and Aeronautical Engineering
Course title	**Fluid Mechanics for Mechanical Engineers**
Course number	L2040-CiE
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	The students are familiar with the basic concepts of technical fluid mechanics. They know the fundamental principles for describing viscous and non-viscous flow phenomena. They can describe and analyse fluid mechanical problems and apply the theoretical principles to solve specific tasks. They are aware of the assumptions made in the process.
Prerequisites	Engineering Math and Mechanics, Dynamics
Recommended reading	Cengel, Y. A., & Cimbala, J. M.: Fluid Mechanics: Fundamentals and Applications Spurk, J., & Aksel, N.: Fluid mechanics
Teaching methods	Course lecture
Assessment methods	written exam, 90min
Language of instruction	English
Name of lecturer	Prof. Dr. Bernhard Simon
Email	bernhard.simon@hm.edu
Link	
Course content	Fluid properties and state variables Surface tension Hydrostatics (incl. aerostatics) Kinematics Conservation equations of fluid mechanics (energy, mass, momentum and angular momentum) Similarity methods and dimensional analysis Boundary layer flows Flow around streamlined and bluff bodies Pipe flows
Remarks	