

Courses in English

Course Description

Department	05 Building Services Engineering, Paper and Packaging Technology and Print and Media Technology
Course title	Advanced Fluid Mechanics
Hours per week (SWS)	3
Number of ECTS credits	5
Course objective	Fluid Measurements
Prerequisites	no
Recommended reading	English Textbook and handouts
Teaching methods	lectures and exersices
Assessment methods	examination
Language of instruction	English
Name of lecturer	Prof. Dr.-Ing. habil. Dieter Liepsch
Email	Liepsch@hm.edu
Link	
Course content	siehe Anlage
Remarks	

Prof. Dr.-Ing. habil. Dieter Liepsch

Advanced Fluid Mechanics

Goal: Introduction to the instrumentation and procedures for flow, velocity and pressure measurement instrument. Flow visualization techniques.

Contents:

Introduction to flow, velocity and pressure measurements techniques

Theoretical and practical studies

Flow meters for internal and external flows

Orifice plate

Flow nozzle

Venturi tube

Optical methods:

LDA

Two phase Doppler anemometer

Two focus laser anemometer

Particle image velocimetry

Ultrasound and magnetic-induction flow meters

Flow visualization techniques in fluids gas and liquids