

Courses in English Course Description

Department	03 Mechanical, Automotive and Aeronautical Engineering
Course title	Flight Dynamics and Control
Course number	L3100
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	Derivation of the equations of motion and Eigenmotions of aircraft. State-space representation for control system design with multiple state variables. Effects of Actuators and Sensors. Design of dampers for the aircraft Eigenmotions. Derivation and application of flight performance criteria. Trimming and setpoint control in longitudinal and lateral-directional motion. Structure and design of autopilot systems.
Prerequisites	recommended: control systems, flight mechanics, mathematics, mechanics
Recommended reading	Will be provided by lecturer and will include miscellaneous book chapters, journal papers, conference papers, and internet links to videos.
Teaching methods	Traditional lecturing plus in-class group problem-solving activities.
Assessment methods	Final exam - 90 minutes
Language of instruction	English
Name of lecturer	Prof. Dr.-Ing. Manuel Pusch
Email	manuel.pusch@hm.edu
Link	
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Remarks	