# Vehicle Dynamics

**Department**  
03 Mechanical, Automotive and Aeronautical Engineering  

**Course title**  
Vehicle Dynamics  

**Hours per week (SWS)**  
4  

**Number of ECTS credits**  
5  

**Course objective**  
To give the student an appreciation of factors affecting vehicle longitudinal dynamics, handling and ride comfort. After taking this unit the student should be able to:  
- Describe and analyze the dynamics of a vehicle.  
- Calculate the power demand and energy consumption of a vehicle.  
- Understand the tasks of vehicle suspension and predict vehicle ride behavior and steady state handling performance.  
- Explain the physical principles of road vehicle aerodynamic design.  

**Prerequisites**  
Dynamics, Engineering Math, Engineering Mechanics  

**Recommended reading**  

**Teaching methods**  

**Assessment methods**  

**Language of instruction**  
English  

**Name of lecturer**  
Prof. Dr. P. Pfeffer  

**Email**  
peter.pfeffer@hm.edu  

**Link**  

**Course content**  

**Remarks**  

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