



UNIVERSITÀ
DI PAVIA



Post-bachelor Program

DESIGN AND DEVELOPMENT OF VEHICLE DYNAMICS



Overview

This one year full-time academic programme aims to train highly qualified professionals in vehicle dynamics, through a variety of teaching activities. The course includes both theoretical and practical teaching, as well as workshops, tours, and a 6-month internship in industry. Thanks to the partnerships with VI-Grade, ASC (Automotive Safety Centre), Danisi Engineering, Megaride, Alfa Romeo Maserati, MSC Software, Siemens, Pirelli and Brembo, among others, students have a wealth of opportunities to develop their knowledge and skill in designing vehicle dynamics.

Students will benefit from:

- Full-time use of a compact static simulator to develop vehicles in a virtual environment
- Test sessions on the ASC track and proving ground
- An Advanced Driving Course
- Workshop on the VI-Grade Driver in Motion dynamic simulator
- A variety of Advanced Short Courses taught by professionals
- Vehicle testing with both Computer Aided Engineering, and experimentally on real vehicles
- Guided tours of plants and facilities

Entry Requirements

- Bachelor's or Master's degree in Engineering
- Knowledge of English
- An automotive or mechanical background with work experience is appreciated

Subjects

The study plan is made up as follows:

Teaching Modules: Total Vehicle Design; Fundamental Driving Dynamics; Virtual Dynamics Design and Simulation; Material and Structural Design; Propulsion: IC and Hybrid; Vehicle Dynamics Control; Total Vehicle Testing and Development; Biomechanics: driver/vehicle interaction (34 ECTS)

6-month Internship: with car manufacturers or automotive engineering companies (for example, in the previous editions with VI-Grade, Danisi Engineering, Pirelli, Blue Engineering, CSI, Seat, ZF TRW, Continental) (24 ECTS)
Final Exam (2 ECTS)

Fees

Tuition fee is 15,000 EUR (divided in two installments).

Contacts & Information

Department of Electrical, Computer
and Biomedical Engineering
University of Pavia - Italy



vehicledynamics.unipv.it



info.vehicledyn@unipv.it