

COURSE DETAIL

MOTORCYCLE VEHICLE DYNAMICS

Country

Italy

Host Institution

University of Bologna

Program(s)

University of Bologna

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Engineering

UCEAP Course Number

176

UCEAP Course Suffix**UCEAP Official Title**

MOTORCYCLE VEHICLE DYNAMICS

UCEAP Transcript Title

MOTORCYCLE DYNAMICS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course is part of the Laurea Magistrale program. The course is intended for advanced level students only. Enrollment is by consent of the instructor. The course focuses on procedures and methods for modelling, identifying, designing, and analyzing dynamic motorcycle models. Topics include analytical tools to understand the basic mechanical systems, numerical tools to simulate complex mechanical systems, and experimental tools to identify critical parameters. The course discusses topics including motorcycle kinematics, suspensions, tire modelling, motorcycle dynamics, numerical modelling of the motorcycle dynamics, and experimental tests and model validation. The course consists of theoretical lectures, lectures and seminars held by experts from academic and industry, and classroom exercises with numerical tools and simulation software.

Language(s) of Instruction

English

Host Institution Course Number

86466

Host Institution Course Title

MOTORCYCLE VEHICLE DYNAMICS

Host Institution Campus

BOLOGNA

Host Institution Faculty

ENGINEERING

Host Institution Degree

Laurea Magistrale in Mechanical Engineering and Advanced Automotive Engineering

Host Institution Department

ENGINEERING

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