

COURSE DETAIL

INTRODUCTION TO VEHICLE SYSTEMS

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering Engineering

UCEAP Course Number

123

UCEAP Course Suffix**UCEAP Official Title**

INTRODUCTION TO VEHICLE SYSTEMS

UCEAP Transcript Title

VEHICLE SYSTEMS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course covers the history and description of the most common road vehicles, with a focus on the connection between vehicle properties and the requirements from different users and applications. An overview of vehicle safety is provided and students then discuss the impact on the environment. Topics include: dimensioning brake and chassis suspension, propulsion systems (engine, transmission and hybrid systems), electrical vehicles, contemporary and future vehicles, and alternative transport systems. The course contains lectures, seminars, exercises, and two laboratory exercises where a driving cycle is performed on public roads to simulate the driving cycles in the EU in order to certify fuel consumption on passenger cars, measure g-forces, and analyze the vehicle dynamics. Normally an industry representative gives an invited lecture.

Language(s) of Instruction

English

Host Institution Course Number

MVKF15

Host Institution Course Title

INTRODUCTION TO VEHICLE SYSTEMS

Host Institution Campus

Engineering

Host Institution Faculty

Host Institution Degree

Host Institution Department

Engineering- Energy Sciences

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