

COURSE DETAIL

ELECTRIC VEHICLE TECHNOLOGIES AND APPLICATIONS

Country

Germany

Host Institution

Technical University Berlin

Program(s)

Technical University Berlin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering Electrical Engineering

UCEAP Course Number

119

UCEAP Course Suffix**UCEAP Official Title**

ELECTRIC VEHICLE TECHNOLOGIES AND APPLICATIONS

UCEAP Transcript Title

ELECTRIC VEHICLES

UCEAP Quarter Units

8.50

UCEAP Semester Units

5.70

Course Description

This course gives students a basic insight into different components relevant to electric mobility, including their basic function and relevant design parameters. Secondly, a system based holistic approach is taught, considering drive train concepts, storage systems and charging technologies. The lecture covers the following topics: Introduction to electric mobility, Drivetrain concepts (HEV, BEV, FCV) and fundamentals of electric motors in electric vehicles, Storage systems (SuperCap, Fuel Cell, Battery), Charging strategies and technologies (for passenger vehicles, trucks and buses), and Auxiliaries and their influence on energy consumption.

Language(s) of Instruction

English

Host Institution Course Number

3535 L 023

Host Institution Course Title

ELECTRIC VEHICLE TECHNOLOGIES AND APPLICATIONS

Host Institution Campus

FAKULTÄT V VERKEHRS- UND MASCHINENSYSTEME

Host Institution Faculty

Host Institution Degree

Host Institution Department

Maschinenkonstruktion und Systemtechnik

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