Curriculum of Vehicle Engineering BSc

Valid from 01.09.2025.

Technical Mechanics I

Chemistry

Mathematics I

Physics

Materials Engineering

Technical Mechanics II

Heat Measurement

Mathematics II

Electrical Engineering

Technical Mechanics III

Hydrodynamics

Mathematics III

Skills development

Safety and Protection

Economics

Enterprise Economics

Management

Law

Engineering Drawing

Informatics for Engineers

General Mechanics

Control engineering

CAD Techniques

Basic programming skills

Machine elements I.

Vehicles and mobile machines

Measurement in Mechanical Engineering I.

Vehicle materials and technologies

Machine elements II.

Automotive engines

Manufacturing I.

Vehicle Dynamics and Transmission Technologies

Fluid- and thermo machines in vehicles

Composite and Bonding Technologies

CNC programming

Quality Management

Electric vehicles specialization:

Mandatory:

Transmissions of motor vehicles

Vehicle suspensions

Basics of electric and hybrid drive technology

Vehicle electronics II.

Fuel_Cell_systems

Electric vehicle drivetrain design

Operation and maintenance of electric vehicles

Mandatory optional:

Vehicle electronics I.

Vehicle Diagnostics

Surface treatment technologies

Vehicle manufacturing specialization:

Mandatory:

Manufacturing II.

Forming operations in the automotive industry

Robots in Vehicle Manufacturing

Computer-integrated manufacturing

Assembly Technology

Plastics in vehicles

Bonding Technologies in Vehicle Industry

Mandatory optional:

Vehicle electronics I.

Vehicle Diagnostics

Surface treatment technologies

Other courses:

Measuring of competence (input)

University civic education

Physical Education I

Physical Education II

Foreign language 1

Foreign language 2

Thesis

Mandatory Internship (6 weeks)

Elective subjects min.10 kr

Measurement of output competence

John Von Neumann University