

Basic notions of kinematics and dynamics, positive displacement machines, internal combustion engines, turbo machinery, machine parts, mechanical vibrations.

Final competences

- 1 Understand the origin of dynamic tyre properties.
- 2 Apply tyre properties to the study of braking stability and vehicle dynamics.
- 3 Explain the course of forces and velocities throughout the powertrain and compare to the requirements for vehicle traction.
- 4 Evaluate the powertrain, braking system, suspension and steering system against the most important criteria.
- 5 First order dimensioning of the powertrain, braking system, suspension and steering system.
- 6 Explain how a choice in the design of a part can influence the operation of other vehicle parts.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Lecture

Study material

Type: Syllabus

Name: Automotive Technology

Indicative price: Free or paid by faculty

Optional: no

Language : English

Number of Pages : 180

Oldest Usable Edition : 2017

Available on Ufora : Yes

Online Available : Yes

Available in the Library : No

Available through Student Association : Yes

References

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Oral assessment

Examination methods in case of periodic assessment during the second examination period

Oral assessment

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

During examination period: oral closed-book exam, written preparation. During semester: project report.

Calculation of the examination mark

$(\text{project report} * 6 + \text{oral exam} * 14) / 20$