

Vak: Physics and Fuels

credits: 5

Vakcode RWVM23PAF
Naam Physics and Fuels
Studiejaar 2026-2027
ECTS credits 5
Taal Engels
Coördinator A. Perl

Werkvormen Onderwijs
Toetsen Lab - Opdracht
Theory - Opdracht

Leeruitkomsten

After completion of this module the student is able to:

1. Understand and apply scientific concepts of thermodynamics of fuels, combustion, heat transfer and fluid mechanics.
2. Model processes for fuel production with a focus on downstream.
3. Analyse (renewable) fuels and mobility related technical issues.
4. Evaluate fuel mixtures and their applicability in mobility.

Inhoud

Theory (4 EC):

- ideal vs real gas, equations of state, compressibility
- heat transfer
- cryogenics (Joule-Thomson)
- combustion technology (incl. engines and emissions)
- fuels (properties/flow/storage)
- additives
- compression
- storage

Lab (1 EC):
Aspen Plus

Opgenomen in opleiding(en)

European Master in Renewable Energy

School(s)

Engineering, Life Sciences & ICT