

# Course

English

J. Bekkering

Course: PowerzHydrogen			
Course code	ZWVH19P2U	Modes of delivery	
Name	Power2Hydrogen	Assessments	
Study year	2021-2022		
ECTS credits	5		

Assignment 1 - Assignment Assignment 2 - Assignment

Education

credits: 5

## Learning outcomes

Language Coordinator

By completing the module the student demonstrates knowledge and understanding of:		
	theoretical constructs and scientific frameworks relevant	
to power-to-hydrogen		
E2.2.a.2	main sources of energy dissipation in electrolysers and	
fuel cells		
E2.2.b.1	power-to-hydrogen value chains for mobility	

### And is able to:

*E2.1.c.1* design scientific experiments to analyse the performance of electrolysers

*E2.3.e.1 define and measure the energy efficiency of electrolysers* archive and communicate effectively experimental E1.1.c.1 results

## Included in programme(s)

European Master in Renewable Energy

#### Content

Theory (3 EC):

- Electrochemistry basics
- Electrochemical storage overview on electrochemical storage, including fundamentals of batteries and fuel cells. Limits and applications
- Electrolysis: theory and electrolyser design
- Fuel cells: theory and design

#### Experiments (2 EC):

· Electrolyser and fuel cell measurements

Adsorption (storage) measurements

## School(s)

Institute of Engineering

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