Course: Specialisation Wind Energy (Athens) credits: 30

Course code	RWVM23WE
Name	Specialisation Wind Energy (Athens)
Study year	2026-2027
ECTS credits	30
Language	English
Coordinator	H.M. Moesker
Modes of delivery	Education
Assessments	Specialisation Wind Energy (Athens) - Other assessment

Learning outcomes

The syllabus contains:

1. Introduction
2. Advanced Wind Structure and Statistics
3. Evaluation of Wind Energy Potential
4. Wind Turbine Aerodynamics
5. Static and Dynamic Loading of Wind Turbines
6. Electrical Conversion Systems
7. Wind Turbines Control
8. Design of Wind Turbines
9. Performance Testing and Modelling
10. Wind Farm Technology Issues
11. Electrical Integration
12. Standards and Certification
13. Economics of WT
14. Environmental Issues
15. Market Development and Status of Industry

Content

Qualifies students for employment in the international wind energy sector. The specialisation focuses issues like Wind potential, Aerodynamics, Loading of Wind turbines, Wind turbine design, Electrical and control issues, Wind farm design, economics and environmental issues. Additionally, students develop skills in the use of simulation tools to analyse problems related to the design of wind turbines and the development of wind farms.

The Wind Energy specialisation is taught mostly by professors from the Renewable Energy Sources Unit (RENES), The Wind Energy Laboratory (WEL) and the School of Mechanical Engineering. The Centre for Renewable Energy Sources (CRES) also contributes to the course through teaching and use of their laboratories. Individual seminars are held by representatives of the industry and visiting professors. During the semester the students have the opportunity to visit Wind Parks and the prernises of CRES

Included in programme(s)

European Master in Renewable Energy

School(s)

Engineering, Life Sciences & ICT

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