

# European Wind Energy Master

## EWEM

### MSc Programme



**Wind energy is one of the main sources of renewable energy. It does not contaminate, it is inexhaustible and reduces the use of fossil fuels. Our European cooperation programme educates students to contribute in the development of innovative wind energy solutions and prepares them for a professional career in the world of renewable energy.**

<b>Degree</b>	Master of Science, double degree
<b>Starts</b>	September
<b>Type</b>	Full-time
<b>Credits</b>	120 ECTS, 24 months
<b>Language</b>	English
<b>Application deadline</b>	April 1 <sup>st</sup>
<b>Scholarships*</b>	None

\* Erasmus+ Exchange scholarship opportunity for semesters outside TU Delft (conditions apply)

Even with our best efforts to promote energy efficiency, the global demand for energy to power our way of life continues to increase. Clearly, we must develop new and more efficient sources of energy. One of these sources, wind energy, offers considerable promise: the wind itself is free, wind power is clean, and it is inexhaustible. In recent years, research on wind energy has accelerated, and new developments in efficient and cost effective ways of harnessing wind energy are making it increasingly attractive and competitive. The European Wind Energy Master, a high mobility master offered by a consortium of top universities in Europe, is built upon a body of proven and emerging research that has the

potential to shape the future of the wind energy sector. As an EWEM student, you will spend your time at least at two of the four different partner universities. In preparing engineers for a truly global sector, one of the programme's goals is to train professionals to become resourceful problem solvers capable of collaborating with colleagues from a wide array of cultural and professional backgrounds. Students spend semesters at different universities in the consortium and acquire knowledge in the theoretical and applied sciences that underlie wind energy systems, in addition to specific competences that they will need in order to function in their chosen area of specialisation.

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FIRST YEAR	SECOND YEAR
CORE COURSES (33 EC)	ELECTIVE COURSES (15 EC)
PROFILE COURSES (25 EC)	MASTER THESIS PROJECT (45 EC)
RESEARCH METHODOLOGIES (2 EC)	

Please note: the exact number of EC per year varies per track

Upon successful completion of the programme, students are awarded a double MSc degree: one diploma from each of two partner universities, involved in the chosen track. The possibility exists to complete an internship and conduct part of your thesis work with one of our more than 40 partner organisations, ranging from industrial firms to other universities and research institutions.

### Programme

The EWEM consortium is composed of four universities: Delft University of Technology (TU Delft), Technical University of Denmark (DTU), Norwegian University of Science and Technology (NTNU) and the Carl von Ossietzky University of Oldenburg (UO). Each of these institutions has a long history of research, innovation, and teaching performance in wind energy. Students are expected to travel to 2 or more of these universities along the 2 years programme.

### Tracks

EWEM offers four tracks along the energy conversion chain, each with two or three areas of focus. The four tracks are:

#### Wind Farms & Atmospheric Physics (WF&AP)

The Wind Farms & Atmospheric Physics track examines fundamental as well as applied aspects of fluid dynamics and aims at engineers and physicists who have a keen interest in the understanding and utilisation of wind energy.

#### Rotor Design (RD)

The Rotor Design track provides the students with the technical knowledge necessary to work in the research and development (R&D) of Wind Turbine Rotors.

At TU Delft this track is offered by the Faculty of Aerospace Engineering.

#### Electric Power Systems (EPS)

The Electric Power Systems track provides the students with technical knowledge about the components and systems necessary for the

integration of renewable energy within the power system.

At TU Delft this track is offered by the Faculty of Electrical Engineering, Mathematics and Computer Sciences.

#### Offshore Engineering (OE)

The Offshore Engineering track trains the students to master the interpretation of environmental data for the design of the structures to be used in offshore wind turbines. Major aspects treated within this specialisation are manufacturing, transport, installation, operations and maintenance of offshore wind turbines.

At TU Delft this track is offered by the Faculty of Mechanical, Maritime and Materials Engineering.

### Career Prospects

The number of jobs in the wind energy sector in Europe is expected to increase to 450 000 by 2020. Globally, the growth will be even faster: wind energy jobs throughout the world are expected to double every 10 years, increasing from 630 000 in 2010 to 2 400 000 in 2030.

In our alumni network we have people working for renown wind energy companies like Siemens Gamesa, Vestas, Ørsted, and Van Oord, and others doing research for our own universities, other universities like for example RWTH Aachen or research institutes like Fraunhofer IWES.

The list of employers is long and most of our graduates find a job shortly after or even slightly before graduation.

### Study Association: ASE Aeolus

EWEM has its own study association, ASE Aeolus. The association organises social, informative and professional events that complement the content of the course programme. One of the yearly big events is the Multiple Day Excursion in which students travel to main wind energy hubs in Europe and visit several wind energy companies and institutions. The Board of Aeolus consists of EWEM students. The association is supported by the EWEM programme and several industrial partners.



4

world leading universities in wind energy and offshore wind energy research and education



>43

nationalities



100%

English-language programme

### Career Perspective



50-60

students per year, covering the top 0.5% global demand of Wind Energy professionals with post-graduate education.



85%

job within 3 months