# Planning and Construction of Wind Farms

**Module designation**

Planning and Construction of Wind Farms

**Course(s)**

Planning and Construction of Wind Farms

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**Person responsible for the module**

Prof. Dr.-Ing. Detlef Kuhl

**Lecturer**

Eng. Stefan Bauch, Lisa Keaton B.A.

**Workload**

90h (15h online presentation, 30h private study, 45h homework)

**Relation to curriculum**

Additive key skills, elective

**Type of teaching, contact hours**

Skype, telephone, virtual classroom, digital communication

**Requirements according to examination regulations**

None

**Recommended prerequisites**

None

**Module objective / intended learning outcomes**

The students are able to do a micrositing for a wind farm using all available (project-) information taking into account the site conditions, local and other restrictions. The students will get the ability to know, which influence different conditions/restrictions are during the planning process and what are the consequences. Additionally, the students know how the construction of the infrastructure of a wind farm and the erection of wind energy converters will take place.

**Content**

- Micrositing
  - What wind energy converter for what site
  - Basics of micrositing
- Emissions
  - Basics of micrositing
  - Noise
  - Shadow
  - Other
- restrictions during the planning Process
- Grid connection
- Construction of wind farms
  - Transport
  - Subsoil
  - Foundation
  - Site access
  - erection

**Study and examination requirements and forms of examination**

Written homework (15 pages) with presentation of the homework (20 min) and oral examination (10 min). The examinations are going to 50% (written homework) of the shares and 20% (presentation) and 30% (oral examination) in the final grade of the module.

**Media employed**

online script

**Reading list**

Erich Hau/ Wind Turbines: Fundamentals, Technologies, Application, Economics
Erich Hau/ Windkraftanlagen: Grundlagen, Technik, Einsatz, Wirtschaftlichkeit