

# MS ISEE Study Track: System Integration of Wind Power

## Course Table: 2015/2016

1. **Year NTNU:** Department of Electric Power Engineering, Magnus Korpås
2. **Year DTU:** DTU Wind Energy/ DTU Management Engineering Professor Jens Nørkær Sørensen, Professor Henrik Klinge Jacobsen

### Course table

1. Semester	2. Semester	3. Semester	4. Semester
<i>NTNU</i>		<i>DTU</i>	
<i>TET4115 - Power System Analysis 7.5 ECTS</i>	<i>TEP4220 - Energy and Environmental Consequences 7.5 ECTS</i>	<i>Wind Turbine Technology and Aerodynamics , 46300, 10 ECTS</i>	<i>Thesis , 30 ECTS</i>
<i>TET4190 - Power Electronics for Renewable Energy 7.5 ECTS</i>	<i>TET4185 - Power Markets, Resources and Environment 7.5 ECTS</i>	<i>Integration of Wind Power in Power Systems, 31783, 5 ECTS</i>	
<i>TEP4175 - Energy from Environmental Flows 7.5 ECTS</i>	<i>TET4175 - Power Control in Smart Grids 7.5 ECTS</i>	<i>Elective course from list 3, 5 ECTS</i>	
<i>Elective course from list 1, 7,5 ECTS</i>	<i>Elective course from list 2, 7,5 ECTS</i>	<i>Elective course from list 3, 10 ECTS</i>	
<b>= 30 ECTC</b>	<b>= 30 ECTS</b>	<b>= 30 ECTS</b>	<b>= 30 ECTS</b>

### Elective course list 1

- TIØ4556 Energy Markets, Specialization Course 7.5 ECTS
- TEP4240 System Simulation 7.5 ECTS
- TEP4223 Life cycle Assessment 7.5 ECTS

### Elective course list 2

- TET4180 Electric Power System Stability 7.5 ECTS
- TET4135 Energy Systems Planning and Operation 7.5 ECTS
- TET4200 Marine and Offshore Power Systems 7.5 ECTS
- xxxxxxx Experts in teamwork 7.5 ECTS

### Elective course list 3

- 28870 Energy and Sustainability 5 ECTS
- 42004 Feasibility studies and systems assessment of energy technologies 5 ECTS
- 46400 Wind power and measurement techniques 10 ECTS
- 31786 Wind Turbine Electrical Design 10 ECTS
- 41315 Applied CFD 5 ECTS
- 46200 Planning and development of wind farms 5 ECTS
- 46100 Introduction to micrometeorology for wind power 5 ECTS
- 46320 Loads, Aerodynamics and Control of wind turbines 10 ECTS

## Research areas for projects / master thesis

<b>Responsible professor, 2. year university, department</b>	<b>Second supervisor, 1. year, university, department</b>	<b>Research area</b>
<i>Poul Erik Morthorst, Management Engineering, DTU</i>	<i>To be announced</i>	<i>System Integration of wind power, Energy Markets, Energy Policies</i>
<i>Jens Nørkær Sørensen, Wind Energy, DTU</i>	<i>To be announced</i>	<i>System integration of Wind power, wind turbine technology, wind turbine design</i>
<i>Henrik Klinge Jacobsen, Management Engineering, DTU</i>	<i>To be announced</i>	<i>Power markets and wind, support instruments for wind Systems integration of wind power,</i>