

Offered as: 1-professional					
Specialisation: Thermal Energy and Process Engineering					
Module name	Course type	ECT S	Applied grading scale	Evaluation method	Assessment method
1 SEMESTER For Students with a Bachelor's Degree from Aalborg University					
Fluid Mechanical Analysis Methods	Project	15	7-point grading scale	Internal examination	Oral exam based on a project
Computational Fluid Dynamics (CFD) and Multiphase Flow	Course	5	7-point grading scale	Internal examination	Oral exam
Fluid Mechanics and Compressible Flow	Course	5	7-point grading scale	Internal examination	Oral exam
Probability Theory, Stochastic Processes and Applied Statistics	Course	5	7-point grading scale	Internal examination	Written or oral exam
1 SEMESTER For Students with a Bachelor's Degree from Another University (INTRO Semester Students)					
Problem Based Project Organised Learning in Thermo-Mechanical Analysis Methods (INTRO)	Project	10	7-point grading scale	Internal examination	Oral exam based on a project
Control Theory and MATLAB	Course	5	7-point grading scale	Internal examination	Written exam
Computational Fluid Dynamics (CFD) and Multiphase Flow	Course	5	7-point grading scale	Internal examination	Oral exam
Fluid Mechanics and Compressible Flow	Course	5	7-point grading scale	Internal examination	Oral exam
Probability Theory, Stochastic Processes and Applied Statistics	Course	5	7-point grading scale	Internal examination	Written or oral exam
2 SEMESTER					
Modelling and Optimisation of Energy Systems	Project	15	7-point grading scale	External examination	Oral exam based on a project
Fuel Conversion and Production	Course	5	7-point grading scale	Internal examination	Oral exam
Chemical Reactors and Process Systems	Course	5	7-point grading scale	Internal examination	Oral exam
Optimisation Theory and Reliability	Course	5	7-point grading scale	Internal examination	Written exam
3 SEMESTER Ordinary Semester					
Optimisation, Analysis and Control of Thermal Energy and Processing Systems	Project	20	7-point grading scale	Internal examination	Oral exam based on a project
Elective Courses Energy Engineering	Course	10			
3 SEMESTER Voluntary Traineeship					
Voluntary Traineeship	Project	30	7-point grading scale	Internal examination	Oral exam based on a project

4 SEMESTER Master's Thesis					
Master's Thesis	Project	30	7-point grading scale	External examination	Oral exam based on a project
3-4 SEMESTER Long Master's Thesis					
Master's Thesis	Project	50	7-point grading scale	External examination	Oral exam based on a project
Elective Courses Energy Engineering	Course	10			

Elective Courses Energy Engineering					
Module name	Course type	ECT S	Applied grading scale	Evaluation Method	Assessment method
Advanced Analysis of Thermal Machines	Course	5	7-point grading scale	Internal examination	Written and oral exam
Advanced Modelling and Control of Voltage Source Converters	Course	5	7-point grading scale	Internal examination	Written and oral exam
Analysis of Advanced Thermal Process Systems	Course	5	7-point grading scale	Internal examination	Oral exam
Battery Energy Storage Systems	Course	5	7-point grading scale	Internal examination	Written and oral exam
Biomass Conversion and Biofuels	Course	5	7-point grading scale	Internal examination	Written and oral exam
Biomass Gasification, Combustion and their Advanced Modelling	Course	5	7-point grading scale	Internal examination	Oral exam
Control of Grid Connected Photovoltaic and Wind Turbine Systems	Course	5	7-point grading scale	Internal examination	Written and oral exam
Electrochemical Modelling of Fuel Cells, Electrolysers and Batteries	Course	5	7-point grading scale	Internal examination	Oral exam
Energy Conversion and Storage in Future Energy Systems	Course	5	7-point grading scale	Internal examination	Written and oral exam
Fault Tolerant Control	Course	5	7-point grading scale	Internal examination	Written exam
Future Power System in Denmark	Course	5	7-point grading scale	Internal examination	Written and oral exam
Modern Electrical Drives	Course	5	7-point grading scale	Internal examination	Written and oral exam
Modern Power Electronic Devices and their Models	Course	5	7-point grading scale	Internal examination	Written and oral exam
Non-linear Control and Multi-body Systems	Course	5	7-point grading scale	Internal examination	Written or oral exam
System Identification and Diagnosis	Course	5	7-point grading scale	Internal examination	Oral exam
Test and Validation	Course	5	Passed/Not Passed	Internal examination	Written and oral exam
Wind Power System and Renewable Energy Grid Integration	Course	5	7-point grading scale	Internal examination	Written and oral exam