

<p>Title: Biomass Conversion and Biofuels / Omdannelse af biomasse og biobrændsler</p>
<p>ECTS credits: 5</p>
<p>Prerequisites: 2nd semester on the MSc in Energy Engineering, Sustainable Energy Engineering or similar</p>
<p>Relevant for: TEPE, HYTEC, PECT</p>
<p>Objective: Students who complete the module should have the following knowledge, skills and competence:</p> <p>Knowledge</p> <ul style="list-style-type: none"> • Biomass resources • Converting feedstocks to biofuels by various processes • Different biofuel production technologies. <p>Skills</p> <ul style="list-style-type: none"> • Be able to present the most promising new sources for biofuels • Be able to list the most important biofuels and processes related to biofuels and their future prospects • Be able to analyse and evaluate processes of biomass energy conversion • Be able to evaluate the sustainability of biofuels from different biomass resources using a life cycle perspective with focus on greenhouse gas emissions. <p>Competence</p> <ul style="list-style-type: none"> • Independently be able to assess biomass resources dedicated for bioenergy production, to design systems of biomass conversion • Independently be able to design innovative production processes for converting a given biomass resource into a specific biofuel.
<p>Type of instruction: The course is taught by a mixture of lectures, workshops, exercises, mini-projects and self-studies.</p>
<p>Examination format: Individual oral examination based on a delivered mini-project/test report (individual or made in groups with maximum 6 persons) concerning a biomass conversion and biofuels area and will be held in accordance with the rules in the Examination Policies and Procedures, Addendum to the Framework Provision at Faculty of Engineering and Science, Aalborg University.</p>
<p>Evaluation criteria: As stated in the Framework Provisions</p>