



AALBORG UNIVERSITET

Studienævnet for Kemi, Miljø og Bioteknologi

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Studienævnet for Kemi, Miljø- og Bioteknologi giver dispensation fra studieordningen for Bacheloruddannelsen i Bæredygtig bioteknologi september 2014 (Aalborg) vedrørende kurset Statistik og forsøgsplanlægning på uddannelsens 5. semester.

Dispensationen træder i kraft pr. 1. september 2015 og gælder for studerende, der påbegynder 5. semester pr. 1. september 2015.

Dispensationen vedrører ændring af mål, som angivet nedenfor.

Objective: Students who complete the module:

Knowledge

- Must have knowledge about basic concepts of probability theory, statistics and quality control
- Must have knowledge about using MATLAB, including the Statistic TOOLBOX for solving problems in statistics and quality control

Skills

- Must be able to choose the right probability model and perform calculations according to the model. This applies to both discrete and continuous distributions.
- Must be able to handle both one-dimensional as well as multi-dimensional random variables and the related distributions, discrete and continuous.
- Must be able to calculate the mean, standard deviation for one-dimensional random variables and also be introduced into the calculation and understanding of covariance for multi-dimensional random variables.
- Must be able to select the right statistical method and make calculations of confidence intervals and do hypothesis testing for one and two random samples, make analysis of variance and regression analysis in terms of continuous as well as discrete probability distributions.
- Must be able to establish and solve problems in process control and product control, this applies both within continuous as an alternative variation.
- Must be able to handle both traditional solution techniques as well as MATLAB solutions.
- Must be able to interpret the results obtained from the correct statistical method including their application



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- Must be able to set up and use non-parametric tests on qualitative data

Competences

- Must be able to engage in a dialogue regarding the optimal choice of method within probability theory, statistics and quality control.
- Must be able to disseminate the results of the calculations to others, including colleagues, public authorities, etc.