# CHEM-E6115 Thermodynamics of modeling and simulation (5 cr)

Examination Responsible teacher: prof. Daniel Lindberg

April 14, 2021 The answers should be uploaded on MyCourses before 13:00 Finnish time, April 14, 2021. In case of technical problems, contact Daniel by e-mail ([Daniel.k.lindberg@aalto.fi](mailto:Daniel.k.lindberg@aalto.fi)).

All three questions must be replied and all will be marked.

1. Describe briefly four different experimental methods for measuring phase equilibria and thermodynamic properties (4 points)
2. Describe the general features of four different thermodynamic solution models and describe the type of chemical system they are suitable for (4 points)
3. Give an overview of the procedure in Calphad-type thermodynamic optimizations (2 points)