

Transient Analysis

**Competence and assessment matrix**

Specific competence	Grade		
	1	3	5
1. Description of Transient Analysis	Understand the concept of transient analysis. Can give a qualitative picture of simple transient analysis, such as connection of DC voltage to RL and RC circuits	Can derive the differential equation for simple transient analysis, such as connection of DC voltage to RL and RC circuits	Can derive the differential equation for complex transient analysis, such as connection of DC voltage to RLC circuits, and connection of AC voltage to RL, RC and RLC circuits
2. Determination of transient analysis	Can give a qualitative description of the process when connecting DC voltage to RL, RC and RLC circuits	Can by using tables provide a quantitative description of the process when connecting AC and DC voltage to RL, RC and RLC circuits	Can solve differential equations, describing transient analysis
3. Use of simulators	Knows MatLab as a tool in transient analysis	Is able to use MatLab as a tool in transient analysis	Is familiar with the use of Matlab as a tool in transient analysis