

<b>Name of the course</b>	<b>Polymer composite materials</b>
Number of instruction hours	20
Outline of course/module content	Composites in materials selection. Matrices, fillers/reinforcements. Interface and interphase in composites. Characterization of interface. Modification of interface. Thermoset matrices of composites. Physico-chemical characteristics of curing process. Kinetics and chemorheology of curing. TTT-diagrams. Processing of polymer composites. Polymer nanocomposites. Nano-reinforcements: layered silicates. Organic-inorganic hybrids: synthesis, sol-gel process.
Description of instruction methods	oral lectures
Description of course/module requirements	oral exam