Name of the course	**Spectroscopic methods in materials research**
Number of instruction hours	20
Outline of course/module content	Vibrational spectroscopies (FT-IR, Raman). Basic principles. Instrumentation. Vibrational spectra analysis. Practical examples in the analysis of different materials (ordered and disordered structures). Electronic spectroscopies. UV/Vis/NIR spectroscopy. Energy dispersive X-ray spectroscopy (EDAX). Basic principles. Spectra analysis. Nuclear spectroscopies. Mossbauerspectroscopy. basic principles. Instrumentation. Hyperfine interactions and spectra analysis. Mossbauer spectroscopy and magnetic materials.
Description of instruction methods	Lectures, consulting, seminars, student research projects
Description of course/module requirements	oral exam, seminar paper