

**Course schedule: Feb 16 – Mar 17, 2023**

<b>Before lunch (10-12)</b>		<b>After lunch (13-16)</b>
2/16	<b>L1:</b> Crystals, lattices & symmetry (AKI)	<b>E1:</b> Installation of programs (AKI, ESG)
2/17	Introduction to course project (AKI)	Data collection for project samples (AKI, ESG)
2/20	<b>L2:</b> X-ray powder diffraction (AKI)	<b>E2:</b> Search & match (AKI, ESG)
2/21	<b>L3:</b> Neutron powder diffraction (JC) <b>C516</b>	<b>E3:</b> Peak positions (ESG) <b>C516</b>
2/22	<b>L4:</b> Indexing (LE) <b>C516</b>	<b>E4:</b> Indexing (LE) <b>C516</b>
2/23	<b>L5:</b> Profiles, intensity extraction (LE) <b>C516</b>	<b>E5:</b> Pawley and Le Bail fitting (LE) <b>C516</b>
2/24	Project	Project
2/27	<b>L6:</b> Structure solution with reciprocal space methods (LE)	<b>E6:</b> Structure solution with EXPO (LE)
2/28	<b>L7:</b> Structure solution with real space methods (AKI)	<b>E7:</b> Structure solution with FOX (AKI, ESG)
3/1	<b>L8:</b> Rietveld refinement – Part I (JC)	<b>E8:</b> FullProf (JC)
3/2	<b>L9:</b> Rietveld refinement – Part II (AKI)	<b>E9:</b> GSAS-II (AKI, ESG)
3/3	Project	Project
3/6	<b>L10:</b> Introduction to TOPAS-Academic (AKI)	<b>E10:</b> TOPAS-Academic (ESG)
3/7	<b>L11:</b> Synchrotron and neutron beamlines (AKI,JC)	<b>E11:</b> Handling organic molecules in TOPAS-Academic (ESG)
3/8	<b>L12:</b> Applications of neutron powder diffraction (JC)	<b>E13:</b> Magnetic structure and light atoms (JC)
3/9	Project	<b>E13:</b> PDF/disordered structures (JC)
3/10	Project	Project
3/13	Project	Project
3/14	Project	Project
3/15	<b>Project presentation</b>	--
3/16	--	--
3/17	<b>Exam (C516)</b>	

Lectures (**L**), Exercise sessions (**E**)

All lectures and exercises will be held in room **C513** unless otherwise stated in the schedule. Note that some sessions will instead be in room **C516** instead as mentioned in the schedule.

Teachers

(AKI) A. Ken Inge, (ESG) Erik Svensson Grape, (JC) Johan Cedervall, (LE) Lars Eriksson