Schedule for KO7010 Advanced Organic Synthesis, fall 2025

Department of Organic Chemistry, Stockholm University

	W. 36 (1/9 – 5/9)	W. 37 (8/9 – 12/9)	W. 38 (15 – 19/9)	W. 39 (22 – 26/9)	W. 40 (29/9 – 3/10)
Mon 09.15-11:45 12.45-(18)	Intro (PA), Lecture 1 Bonding (BO) Lab info, Col chromatography, (Ass)	Lecture 4 Oxidation (BO) Info Master prog (JS) 12:00 **Theoretical lab exam** (Ass) SciFinder search (K343) Hand in lab-report	Laboratory exercise Laboratory exercise	Lecture 10 C=O (BO) Laboratory exercise	**Synthesis seminar** (all) Laboratory exercise
Tue 09.15-11:45 12.45-(18)	**Safety exam** (A507) Intro to ChemDraw& Mestrenova Laboratory exercise	Lecture 5 Oxidation (BO) *Seminar preparation/individual studies*	Lecture 7 Rearrangements (PA) Laboratory exercise	Lecture 11 C=O (BO) Laboratory exercise	Lecture 13 Phos & Sulfur (PA) Laboratory exercise
Wed 09.15-11:45 12.45-(18)	Lecture 2 Reduction (PA) Laboratory exercise **NMR intro**	**10:00!Long synthesis intro** (all) **Short synth. presentations** (all) (12:45-)	Lecture 8 Rearrangements (PA) Laboratory exercise	Laboratory exercise Laboratory exercise	Laboratory exercise Laboratory exercise
Thu 09.15-11:45 12.45-(18)	Laboratory exercise **NMR intro** Laboratory exercise **NMR intro**	Lecture 6 Heterocycles (PA) Problems, (PA)	Laboratory exercise Laboratory exercise	Laboratory exercise Laboratory exercise	Lecture 14 Enolates (BO) Problems, research info 3 XX (PA)
Fri 09.15-11:45 12.45-(18)	Lecture 3 Reduction (PA) Laboratory exercise	Laboratory exercise Laboratory exercise	Lecture 9 C=O (BO) Problems, research info 1 XX (BO)	Lecture 12 Boron & Silicon (PA) Problems, research info 2 XX (BO)	Laboratory exercise Laboratory exercise

	W. 41 (6/10– 10/10)	W. 42 (13/10– 17/10)	W. 43 (20/10 – 24/10)	W. 44 (27/10 – 31/10)
Mon 09.15-11:45 12.45-(18)	Lecture 15 Enolates (BO) Laboratory exercise	Lecture 18 Pericyclic rxns (BO) Laboratory exercise	Laboratory exercise Laboratory exercise	Problem solving (PA) *Seminar preparation/individual studies*
Tue 09.15-11:45 12.45-(18)	Lecture 16 Enolates (BO) Laboratory exercise	Lecture 19 Trans. Metals (PA) *Seminar preparation/individual studies*	Lecture 21 Strategy (PA) Problem, research info 5 XX (PA)	*Seminar preparation/individual studies*
Wed 09.15-11:45 12.45-(18)	Laboratory exercise Laboratory exercise	**Synthesis seminar** (all) Lab report writing (K343) Laboratory exercise	Laboratory exercise Laboratory exercise	**Theory exam (09-14) K441-447**
Thu 09.15-11:45 12.45-(18)	Laboratory exercise Laboratory exercise	Lecture 20 Trans. Metals (PA) Laboratory exercise	Lecture 22 Long synth. (PA) Problem solving (BO) Zoom	*Seminar preparation/individual studies*
Fri 09.15-11:45 12.45-(18)	Lecture 17 Pericyclic rxns (BO) Problems, research info 4 XX (BO)	Laboratory exercise Laboratory exercise	**Practical lab exam (all)!** **Lab-cleaning MANDATORY!**	**Multistep synthesis presentations** (all) **Hand in final synthesis report**

Literature: Organic Chemistry 2nd Ed: Clayden, Greeves and Warren, Oxford University Press, 2012 + lecture handouts and notes.

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All teaching in **A507**, except for laboratory exercises that are in **K422 & K434** and SciFinder search in room **K343**.

Last dates for submitting lab reports: Monday September 8 (the short synthesis), Friday October 31 (the multistep synthesis)

* course responsible and examiner