

Experimental Methods in Chemistry Course 2023 (5 hp)

Introduction and lectures are in K438, P1 online, P2 and P3 KÖL Computer lab

9-12		13-16	
v 19	11/5	Introduction (LI, MN)	L1: NMR tutorials (JH)
	12/5	L2: NMR lectures (JH)	L3A: 13:00-15:00 Analytical Chemical Ecology (RM) L3B: Environmental and Biomolecular MS (LI)
v 20	15/5	L4A: Protein Mass Spectrometry I (NÖ)	L4B: Protein Mass Spectrometry II (NÖ)
	16/5	L5: Electron microscopy (HX)	P1: MS Demo/Tutorials (LI, NÖ) (online)
	17/5	Study time	
	18/5	Ascension Day Holiday	
	19/5	Deadline Home exam ATHENA based	
v 21	22/5	L6: Structural biochemistry (RH)	L6: Structural biochemistry (RH)
	23/5	P2: Structural biochem data lab (FA, MP, SK) Group A	P2: Structural biochem data lab (FA, MP, SK) Group B
	24/5	L7: In vivo imaging (EH)	P2: Structural biochem data lab (FA, MP, SK) Group C
	25/5	L8: NGS/Bioinformatics (ES, PL)	L9: NGS/Bioinformatics (ES, PL)
	26/5	P3: Quantitative Image Analysis (SMS, HL) Group A and half B	P3: Quantitative Image Analysis (SMS, HL) Group half B and C
v 22	29/5	L10: Cryo_EM lecture and demo (MC)	Site visit Cryo-EM SciLifeLab (MC)
	30/5	L11: Spatial omics (MN)	
	31/5	Study time	
	1/6	Study time	
	2/6	Examination: Athena assignments	

Re-exam: No information yet.

L: Lecture

P: Practical exercises

Practical exercises / laboratory

P1: Mass Spectrometry: Demonstration ESI-MS/MS.

P2: Structural biochemistry: Structure information from databases, structure from electron density, analysis of protein structure.

P3: Quantitative imaging lab.

Course coordinator

Mats Nilsson (MN), mats.nilsson@scilifelab.se

Leopold Ilag, (LI), leopold.ilag@mmk.su.se

Nicklas Österlund (NÖ),

Lecturers

Mats Nilsson (MN), mats.nilsson@scilifelab.se

Einar Hallberg (EH), einar.hallberg@dbb.su.se

Marta Carroni (MA), marta.carroni@scilifelab.se
Leopold Ilag (LI), leopold.ilag@mmk.su.se
Ellen Sherwood (ES), ellen.sherwood@scilifelab.se
Pär Lundin (PL), par.lundin@scilifelab.se
Rebecca Howard (RH), rebecca.howard@dbb.su.se
Friederike Allgöwer (FA), friederike.allgower@dbb.su.se
Maximilian Pöverlein (MP), maximilian.poeverlein@dbb.su.se
Sylwia Król (SK), sylwia.krol@dbb.su.se
Jan Holmbäck (JH), jan.holmback@mmk.su.se
Hongyi Xu (HX), hongyi.xu@mmk.su.se
Raimondas Mozuraitis (RM), raimondas.mozuraitis@su.se
Sergio Marco Salas (SMS), sergiomarco.salas@scilifelab.se
Hower Lee (HL), hower.lee@scilifelab.se

Literature: Issued material, as well as lecture notes

Examination and grading criteria:

The course includes hand-in assignments and laboratory reports that are to be submitted in a given deadline. The final grade on the course will be the average grade of the given tasks.

Participation in all practical exercises / laboratory exercises is compulsory. Attendance will be registered.

Attendance of the lectures is a requirement for good understanding of the course material and laboratory exercises. The presence in the lectures is taken into account together with the rest assignments at the end of the course.