Materials Chemistry for Environmental Applications
7.5 Higher Education Credits

Schedule Fall 2024 (October)

Course	Date	Room	Type	Teacher	Contents
L1	3/10 09:15-12:00	*C516*	Lecture	AM/ZH	Introduction Pollution remediation and related circularity concepts (process efficiency, recyclability, recovery of valuable chemicals, end-of-use
L2	4/10 09:15-12:00	*C516*	Lecture	AM	Introduction to adsorption-driven processes for water and air purification and gas separation, associated materials and characterisation
L3	07/10 09:15-12:00	*C 516*	Lecture	AM	Introduction to membrane processes, associated materials for water and air purification and characterisation
Ex1	08/10@9:15	*C 516*	*Class work*	*AM/HK/SK*	*Introduction to seminar topics*
Ex2	08/10@10:00	*C 516*	*Class work*	*AM/HK/SK*	*Introduction to project work*
Ex3	08/10@ 11:00	*C 516*	*Class work*	*SW/KJ*	*Introduction to LCA project*
	13:00- 17:00			*HK/SK*	Lab/ Seminar
L3	09/10 09:15- 12:00	*C 516*	Lecture	AM	Porous materials used in water treatment processes
	13:00- 17:00			HK/SK	Lab/ Seminar
3/10- 20/10 Project work					
L4	10/10 09:15-12:00	*C 516*	Lecture	AM	Nanoporous materials (adsorbents) for air treatment and gas separation
	13:00- 17:00			HK/SK	Lab/ Seminar
L5	11/10 09:15-12:00	*C 516*	Lecture	AM	Biobased materials and hybrids for water treatment I
	13:00- 17:00			HK/SK	Lab/ Seminar
L6	14/10 09:15-12:00			AM	Photocatalytic processes and materials for water purification
14/10 Industry visit (Camfill) 13:00- 17:00					
L7	15/10 09:15- 12:00	*C 516*	Lecture	JY	CO_2 capture and storage (CCS), CO_2 as a base chemical, CO2 capture and utilization (CCU)
	13:00- 17:00			HK/SK	Lab/ Seminar
L8	16/10 (full day)	*C 516*	Lab/ Seminar		

P1	17/10 09:15 onwards	C 516	Seminar presentation	AM /HK/SK	(Group 1, 2, 3, 4, 5, 6, 7)
	18/10,21/10, 22/10				Lab/ Project report/presentation
Ex4	*23/10* 09:15-12:00	*C516*	*Class Work*	*AM/ SW/KJ*	*LCA Implementation (moderated discussion)*
	24/10				Lab/ Project report/presentation
P2	25/10 09:15 onwards	*C516*	Project Presentation	AM/ HK/ SK	(Group 1, 2, 3, 4, 5, 6)
	28/10- 31/10 09:00- 17:00				Project report/ Exam preparation
	1/11	*C516*	Written Examination **HK/SK**		
	8/11		Final report submission		

AM- Aji Mathew, JY- Jiayin Yuan, SW- Siri Willskytt (IVL), KJ- Kristin Johansson(IVL) HK_ Houssine Khalili, SK- Senuri Kumarage