Materials Chemistry for Environmental Applications
7.5 Higher Education Credits

Schedule Fall 2025 (October)

Course	Date	Room	Type	Teacher	Contents
L1	02/10 09:15-12:00	*C516*	Lecture	AM	Introduction Environmental remediation and related circularity concepts Physical, Chemical and Biological approaches for environmental remediation
Ex1	03/10@9:15	*C 516*	*Class work*	*AM/HK/SK*	*Introduction to seminar topics*
Ex2	03/10@10:00	*C 516*	*Class work*	*AM/HK/SK*	*Introduction to project work*
Ex3	03/10@ 11:00	*C 516*	*Class work*	*AM*	*Introduction to LCA*
Lb1	13:00- 17:00			*HK/SK*	Lab/ Seminar
L2	06/10 09:15-12:00	*C516*	Lecture	AM	Introduction to adsorption-driven processes for water and air purification
Lb2	13:00- 17:00			*HK/SK*	Lab/ Seminar
L2	07/10 09:15-12:00	*C516*	Lecture	AM	Introduction to membrane processes for water and air purification
Lb3	13:00- 17:00			*HK/SK*	Lab/ Seminar
L3	08/10 09:15-12:00	*C 516*	Lecture	AM	Characterisation methods for water and air purification materials and processes
Lb4	13:00- 17:00			*HK/SK*	Lab/ Seminar
L4	09/10 09:15- 12:00	*C 516*	Lecture	AM	Porous materials used in water treatment processes
Lb5	13:00- 17:00			*HK/SK*	Lab/ Seminar
L5	10/10 09:15- 12:00	*C 516*	Lecture	AM	Porous materials for air treatment and gas separation
Lb6	13:00- 17:00			HK/SK	Lab/ Seminar
L6	10/10 09:15-12:00	*C 516*	Lecture	AM	Biobased materials and hybrids for water and air purification
Lb7	13:00- 17:00			HK/SK	Lab/ Seminar
L7	13/10 09:15-12:00	*C 516*	Lecture	AM	Photocatalytic materials and processes for environmental remediation
	13/10 Industry visit (Camfill) 13:00- 17:00				
L8	14/10 09:15-12:00			AM	Case studies (Metal ions, dyes, PFAS, biological pollutants, Microplastics)
Lb8	13:00- 17:00			HK/SK	Lab/ Seminar

L9	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)
Lb9	13:00- 17:00			HK/SK	Lab/ Seminar
Ex4	16/10 (full day)	*C 516*	Class work	AM	*LCA Discussion and Implementation*
Lb10 /11	17/10 (full day)	*C 516*	Lab/ Seminar prep	HK/SK	
P1	20/10 09:15 onwards	C 516	Seminar presentation	AM /HK/SK	(Group 1, 2, 3, 4, 5, 6, …)
Lb12 /13	21/10		Flex time Lab/ Project report/presentation	HK/SK	
Lb14 /15	22/10		Flex time Lab/ Project report/presentation	HK/SK	
Ex5	*23/10* 09:15-12:00		*Recap/ Q& A*	*AM*	
Ex 6	*24/10*			*HK/SK*	Project presentation
P2	27/10 09:15 onwards	*C516*	Project Presentation	AM/ HK/ SK	(Group 1, 2, 3, 4, 5, 6…)
Ex 7	28/10 09:00- 17:00				Project report/ Exam preparation
Ex 8	29/10 09:00- 17:00				Project report/ Exam preparation
Ex 9	30/10 09:00- 17:00				Project report/ Exam preparation
	31/11	*C516*	Written Examination **HK/SK**		
	3/11		Final report submission		

AM- Aji Mathew, JY- Jiayin Yuan, HK_ Houssine Khalili, SK- Senuri Kumarage