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/* *Lab safety and Risk Assessment*
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
L3	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
L4	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
L5	09/10 09:15- 12:00	*C516*	Lecture	AM	Porous materials used in water treatment processes
Lb5	13:00- 17:00			*HK/SK*	Lab/ Seminar
L6	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
L7	13/10 09:15-12:00	*C 516*	Lecture	AM	Biobased materials and hybrids for water and air purification
13/10 Industry visit (Camfill) 13:00- 17:00					
L8	14/10 09:15-12:00	*C513*		JY	CO_2 capture and storage (CCS), CO_2 as a base chemical, CO2 capture and utilization (CCU)
Lb7	13:00- 17:00			HK/SK	Lab/ Seminar
Lb8	13:00- 17:00			HK/SK	Lab/ Seminar
L9	15/10 13:15-16:00	*C 516*	Lecture	AM	Photocatalytic materials and processes for environmental remediation

L10	16/10 09:15- 12:00	*C 516*	Lecture	AM	Case studies (Metal ions, dyes, PFAS, biological pollutants, Microplastics, CO_2, VOCs)
Lb9	13:00- 17:00			HK/SK	Lab/ Seminar
Deadline for uploading seminar presentation on Athena (9:00 hr)					
P1	17/10 09:15 -	C 516	Seminar presentation	AM /HK/SK	(Group 1, 2, 3, 4, 5, 6, …)
Lb10	13:00- 17:00			HK/SK	Lab
Lb11/12	20/10 (Full day)		Lab	HK/SK	Lab
Ex4	*21/10 (09:15-*	*C 513*	*Class work LCA*	*AM*	*LCA Discussion and Implementation*
Lb13	13:00- 17:00			HK/SK	Lab
Lb 14/15	22/10 (Full day)		Reserve	HK/SK	
L11	23/10 09:15-12:00		Recap/ Q& A	AM	Discussion and revision
Ex 6	*13:00-17:00*			*HK/SK*	Draft project report preparation
Deadline for uploading draft project report on Athena (18:00 hr)					
Ex 7	*24/10 (Full day)*			*HK/SK*	Project presentation preparation
Deadline for uploading final presentation on Athena (13:00 hr)					
P2	27/10 09:15 onwards	*C516*	Project Presentation	AM/ HK/ SK	(Group 1, 2, 3, 4, 5, 6…)
Ex 7	*28/10 Full day*				*Project report/ Exam preparation*
Ex 8	*29/10 Full day*				*Project report/ Exam preparation*
Ex 9	*30/10 Full day*				*Project report/ Exam preparation*
	31/10	C516	Written Examination HK/SK		
	3/11	*Deadline for final project report on Athena (18:00)*			

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

L: Lectures
Lb: Labs
P: Presentations
Ex: Exercises