

# Materials Chemistry for Environmental Applications

## 7.5 Higher Education Credits

### Schedule Fall 2026 (October)

| Course                                      | Date                  | Room      | Type       | Teacher  | Contents                                                                                                                           |
|---------------------------------------------|-----------------------|-----------|------------|----------|------------------------------------------------------------------------------------------------------------------------------------|
| L1                                          | 01/10<br>09:15-12:00  | C516      | Lecture    | AM       | Introduction<br>Environmental remediation and<br>related circularity concepts                                                      |
| L2                                          | 02/10<br>09:15-12:00  | C516      | Lecture    | AM       | Introduction to adsorption<br>processes for water and air<br>purification                                                          |
| Ex1                                         | 05/10@9:15            | C516      | Class work | AM/HK/SK | Introduction to seminar topics                                                                                                     |
| Ex2                                         | 05/10@10:00           | C516      | Class work | AM/HK/SK | Introduction to project work                                                                                                       |
| Ex3                                         | 05/10@ 11:00          | C516      | Class work | AM       | Introduction to LCA                                                                                                                |
| Lb1                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| L3                                          | 06/10<br>09:15-12:00  | C516      | Lecture    | AM       | Introduction to membrane<br>processes for water and air<br>purification                                                            |
| Lb2                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| L4                                          | 07/10<br>09:15-12:00  | C516      | Lecture    | AM       | Characterisation methods for<br>water and air purification<br>materials and processes                                              |
| Lb3                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| L5                                          | 08/10<br>09:15- 12:00 | C516      | Lecture    | AM       | Porous materials used in water<br>treatment processes                                                                              |
| Lb4                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| L6                                          | 09/10<br>09:15-12:00  | C516      | Lecture    | AM       | Porous materials for air<br>treatment and gas separation                                                                           |
| Lb5                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| L7                                          | 12/10<br>09:15-12:00  | C516      | Lecture    | AM       | Biobased materials and hybrids<br>for water and air purification                                                                   |
| Lb6                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| L8                                          | 13/10<br>09:15- 12:00 | C516      | Lecture    | JY       | CO <sub>2</sub> capture and storage (CCS),<br>CO <sub>2</sub> as a base chemical, CO <sub>2</sub><br>capture and utilization (CCU) |
| 13/10 Industry visit (Camfill) 13:00- 17:00 |                       |           |            |          |                                                                                                                                    |
| L9                                          | 14/10<br>09:15-12:00  | C516      |            | AM       | Photocatalytic materials and<br>processes for environmental<br>remediation                                                         |
| Lb7                                         | 13:00- 17:00          | C265/K207 |            | HK/SK    | Lab/ Seminar                                                                                                                       |
| Ex4                                         | 15/10<br>9:00-17:00   | C516      | Class work | HK/HK    | Seminar preparation                                                                                                                |
| Lb 8/9                                      | 16/10 9:00-17:00      |           | Lab        | HK/SK    |                                                                                                                                    |

|             |                      |                                                  |                                  |            |                                  |
|-------------|----------------------|--------------------------------------------------|----------------------------------|------------|----------------------------------|
| P1          | 19/10<br>9:00-17:00  | C516                                             | Seminar presentation             | AM /HK/SK  | (Group 1, 2, 3, 4, 5, 6, 7)      |
| L10         | 20/10<br>9:00-17:00  | C516                                             | Class work                       | AM         | LCA implementation               |
| Lb<br>10/11 | 21/10                | Flex time<br>Lab/ Project<br>report/presentation |                                  | HK/SK      |                                  |
| L11         | 22/10<br>09:15-12:00 | C516                                             | Recap/ Q& A                      | AM         |                                  |
| P2          | 23/10                | C516                                             | Project Presentation             | AM/ HK/ SK | (Group 1, 2, 3, 4, 5, 6)         |
| Ex 5        | 26/10 09:00-17:00    | Own work                                         |                                  |            | Project report/ Exam preparation |
| Ex 6        | 27/10 09:00- 17:00   | Own work                                         |                                  |            | Project report/ Exam preparation |
| Ex 7        | 28/10 09:00- 17:00   | Own work                                         |                                  |            | Project report/ Exam preparation |
| Ex 8        | 29/10 09:00- 17:00   | Own work                                         |                                  |            | Project report/ Exam preparation |
|             | 30/10                | C516                                             | Written Examination <b>HK/SK</b> |            |                                  |
|             | 2/11                 |                                                  | Final report submission          |            |                                  |

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