

## KO7015 Sustainable Organic Chemistry (7.5 ECTS)

### Course outline and schedule 2024

Week	Monday	Tuesday	Wednesday	Thursday	Friday
7 02/12-02/16	-	-	-	L1	L2
8 02/19-02/23	L3	L4	L5	L6	E1
9 02/26-01/03	E1	L7	L8	E2	L9
10 03/04-03/08	L10 E2	E2	E2	L11	E2
22 03/11-03/15	E2	E2			Questions
23 03/18-03/20		Examination	Presentations		

L = lectures; Exe = exercises

#### Teachers:

(JS) Joseph Samec (course responsible)

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(BMM) Belén Martín-Matute

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L: BMM, JS, MJ (AstraZeneca)

E: JS

#### Literature:

Course book: Green Chemistry and Catalysis, Roger A. Sheldon, Isabel W. C. E. Arends, Ulf Hanefeld, ISBN:9783527307159 | Online ISBN:9783527611003 | available from SU library as e-book (PDF)

#### Additional course material

Lecture slides

Reading material to be distributed

Day	Date	Time	Room	AM (9:15-12:00)
Thu	Feb-15	09-12	A507	L1 Historical background of importance of raw material for organic chemistry. (JS)
Fri	Feb-16	09-12	A507	L2 Possible raw material for organic chemistry beyond crude oil. (JS)
Mon	Feb-19	09-12	A507	L3 How is waste generated? stoichiometry, solvents, work-ups, purifications. (JS)
Tue	Feb-20	09-12	A507	L4: Catalysis for the synthesis of organic compounds (BMM)
Wed	Feb-21	09-12	A507	L5: Heterogeneous catalysis for synthetic organic chemistry (BMM)
Thu	Feb-22	09-12	A507	L6: Green approaches to asymmetric catalysis in organic synthesis (BMM)
Fri	Feb-23	09-12	A507	E1 Assignment on GC12 (JS)
Mon	Feb-26	09-12	A603	E1 Discussion on GC12; introducing EF (JS)
Tue	Feb-27	09-12	A507	L7: Introduction to LCA (JS)
Wed	Feb-28	09-12	A507	L8: LCA (JS)
Thu	Feb-29	09-12	A507	E2 Assignment in LCA (JS)
Fri	Mar-1	09-12	A507	L9: Green Chemistry on C-H activation (MJ AZ)
Mon	Mar-4	09-12	A507	L10: LCA (JS)
Mon	Mar-4	13-16	A507	E2 Assignment in LCA, follow-up group discussions (JS)
Tue	Mar-5	09-12	A603	E2 Assignment in LCA, follow-up group discussions (JS)
Wed	Mar-6	09-12	A507	E2 Assignment in LCA, follow-up group discussions (JS)
Thu	Mar-7	09-12	A507	L11: Technologies for Green Organic Manufacturing (BMM)
Fri	Mar-8	09-12	A507	E2 Assignment in LCA, follow-up group discussions (JS)
Mon	Mar-11	09-12	A507	E2 Assignment in LCA, follow-up group discussions (JS)
Tue	Mar-12	09-12	A603	E2 Assignment in LCA, follow-up group discussions (JS)
Fri	Mar-15	09-12	A507	Questions (JS; BMM)
Tue	Mar-19	09-14	A507	Exam
Wed	Mar-20	09-12	A507	Oral presentations