

KO7015 Sustainable Organic Chemistry (7.5 ECTS)

Course outline and schedule 2026

Week	Monday	Tuesday	Wednesday	Thursday	Friday
8 02/16-02/22	-	-	-	L1	L2
9 02/23-02/28	L3 E1	L4	L5 E1	L6	E2
10 03/02-03/08	L7	L8	L9	E2	E2
11 03/09-03/15	L10	L11	E2	Questions	E2
12 03/16-03/22	E2				Exam

L = lectures; E = exercises

Teachers:

(JS) Joseph Samec (course responsible)

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(BMM) Belén Martin-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

Lectures

Day	Date	Time	Room	AM (9:15-12:00)
Thu	Feb-19	09:15-12	A507	L1 Historical background of importance of raw material for organic chemistry. (JS)
Fri	Feb-20	09:15-12	A507	L2 Possible raw material for organic chemistry beyond crude oil. (JS)
Mon	Feb-23	09:15-12	A507	L3 How is waste generated? stoichiometry, solvents, work-ups, purifications. (JS)
Tue	Feb-24	09:15-12	A507	L4: Introduction to LCA (JS)
Wed	Feb-25	09:15-12	A507	L5: Attributional LCA (JS)
Thu	Feb-26	09:15-12	A507	L6: Consequential LCA (JS)
Mon	Mar-02	09:15-12	A507	L7 Catalysis for the synthesis of organic compounds (BMM)
Tue	Mar-03	09:15-12	A507	L8: Heterogeneous catalysis for synthetic organic chemistry (BMM)
Wed	Mar-04	09:15-12	A507	L9: Green Chemistry on C-H activation (MJ AZ)
Mon	Mar-09	09:15-12	A507	L10: Green approaches to asymmetric catalysis in organic synthesis (BMM)
Tue	Mar-10	09:15-12	A507	L11: Technologies for Green Organic Chemistry (BMM)
Thu	Mar-12	09:15-12	A507	Questions (JS; BMM)
Fri	Mar-19	09-14	A507	Exam

Exercises

Day	Date	Time	Room	
Mon	Feb-23	13-16	A507	E1 Metrics (JS)
Wed	Feb-25	13-16	A507	E1 Metrics (JS)
Fri	Feb-27	09:15-12	A507	E2 LCA (JS)
Thu	Mar-05	09:15-16	A507	E2 LCA (JS)
Fri	Mar-06	09:15-16	A507	E2 LCA (JS)
Wed	Mar-11	09:15-16	A507	E2 LCA (JS)
Fri	Mar-13	09:15-16	A507	E2 LCA (JS)
Tue	Mar-16	09:15-12	A507	E2 LCA (JS)