“Chemistry of sustainable recycling”, KZ8024, 7.5hp

The course consists of

Lectures and four different experimental lab project work. Presentations are seminars where the results from the labs are presented and discussed.

For each lab also, a short written report will be required.

Literature

The recommended literature is composed of articles and eBooks available at the Stockholm University Library. A detailed list will be supplied.

In addition, a locally produced material for guidance to the lab projects will be available

Teachers in the course

EZ: Erica Zeglio (Kemikum)	erica.zeglio@su.se
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KJ: Anumol Ashok (Kemikum)	anumol.ashok@su.se

Room for lecture F1 – F12 is **C516**

Rooms for the lab experiments, in total 4 projects are:

The labs at KÖL, will mainly be used for preparations and wet lab activities.

Different localities at Kemikum for instrument related analysis, such as electron microscopy and X-ray diffraction.

The language will be English. Most of the software used will be freeware available for download to your own laptop computer.

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F = Föreläsning/lektion/lecture/lesson; **L**=Lab/exercise, **P**=Presentation.

Week	Date	10-12	P 13-15:30 / L 13-17
13	24-mars	**F1** Metal recycling (EZ)	L1 (Metal recycling, electronic waste)
	25	**F2** Sustainable thermodynamics (LE)	L1 (Metal recycling, electronic waste)
	26	**F3** SEM (AA)	L1 (Metal recycling, electronic waste)
	27	Preparation for presentation, free location	**P1**
	28		
14	31	**F4** Recycling and speciation, nutrients (EZ)	L2 (Phosphate recycling)
	1-apr	**F5** X-ray diffraction (LE)	Study visit
	2	**F6** Solar power, photovoltaics (EZ)	L2 (Phosphate recycling)
	3	Preparation for presentation, free location	**P2**
	4		
15	7	**F7** Sustainable plastic materials (EZ)	L3 (Textile recycling)
	8	**F8** Textiles recycling (AM) (**zoom**)	L3 (Textile recycling)
	9	**F9** CCU (BD)	L3 (Textile recycling)
	10	Preparation for presentation, free location	**P3**
	11		
16	14	**F10** Organic batteries: opportunities and challenges (SM)	L4 (Battery recycling)
	15	**F11** Alternative energy storage/energy saving devices: electrochromic devices and redox flow batteries (SM)	L4 (Battery recycling)
	16	**F12** Batteries (EZ)	L4 (Battery recycling)
	17	Maundy Thursday	
	18	Good Friday	
		Easter Eve / Easter Sunday	
17	21	Easter Monday	
	22		
	23		
	24		
	25		
18	28	Preparation for presentation, free location	**P4**
	29		**F13** Repetition, Q & A (B237)
	30		
	1		
	2	**Exam, on site** (room: K433-K439)	

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