

ChE-601(1)

Leading research in Chemical Engineering (1)

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Cursus	Sem.	Type
Chemistry and Chemical Engineering		Opt.

Language of teaching	English
Credits	1
Session	
Exam	Term paper
Workload	30h
Hours	21
Courses	7
TP	14
Number of positions	

Frequency

Every year

Remark

Next time Fall 2022 - Registration via edch@epfl.ch

Summary

Lectures from leading members in Chemical Engineering on: Catalysis, nanotechnology, material synthesis, process engineering, separations, energy, green chemistry, biotechnology, biocatalysis, systems biology and polymer systems.

Content

Concepts covered by external lecturers who are leading experts in the field of chemical engineering will include experimental and computational techniques in the fields of:

- Catalysis
- Photovoltaics and photocatalysis
- Solar fuels
- CO₂ capture and sequestration
- Systems biology
- Metabolic engineering
- Synthetic biology
- Surface science
- Nanotechnology
- Materials synthesis
- Polymer systems

Learning outcomes:

To have a better grasp of the leading research being done in the field of chemical engineering and understand the level of research done by leaders in the field.

Keywords

Chemical engineering, catalysis, nanotechnology, material synthesis, process engineering, separations, energy, green chemistry, biotechnology, biocatalysis, systems biology and polymers systems.

Learning Prerequisites**Required courses**

It is required by the course organizer to enroll for both ChE-601(1) and ChE-601(2)

Important concepts to start the course

MA2 level

Resources

Websites

- https://www.epfl.ch/schools/sb/research/isic/news-events/chemical_engineering_seminars/