

MSE-632

## CCMX Winter School - Nanoparticles: From Fundamentals to Applications in Life Sciences

Various lecturers

Cursus	Sem.	Type
Materials Science and Engineering		Opt.

Language of teaching	English
Credits	2
Session	
Exam	Oral presentation
Workload	60h
<b>Hours</b>	<b>34</b>
Courses	22
Exercises	12
<b>Number of positions</b>	

### Frequency

Every 2 years

### Summary

Organised as 5 modules, the course addresses nanoparticles production, physico-chemical properties and risk assessment, biological and toxicological effects, in a variety of technological and clinical applications. It offers a skill set relevant to the participants research projects and careers.

### Content

Please find information on the link below.

### Keywords

Physico-chemical properties, synthesis and surface engineering, interaction of nanoparticles with the biological matrix, with biomolecules, with membranes and cells, nanotoxicological behaviour in animal and human models, medical and imaging applications of nanoparticles

### Learning Prerequisites

#### Recommended courses

Master in materials science, chemistry, physics, biology, pharmaceutical sciences or life sciences

### Assessment methods

Oral presentation

### Resources

#### Websites

- <https://ccmx.epfl.ch/past-courses-and-events/nanoparticles-from-fundamentals-to-applications-in-life-sciences-2018-winter-school/>