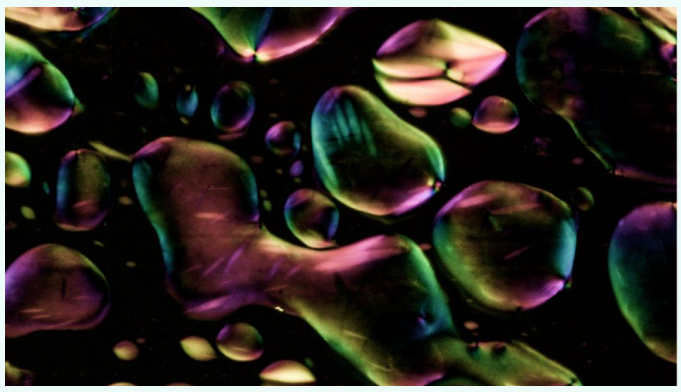
ETH zürich

Competence Center for
Materials and Processes (MaP)

MaP Doctoral School soft materials



1 Soft Materials

Transforming future technologies with soft materials

- Soft materials are crucial for the development of future technologies, contributing to sustainability in areas like personalised medicine, diagnostics, and recycling.
- These deformable and responsive materials, including polymers, gels, nanoparticles, droplets, and bubbles, integrate with biological systems for innovative applications.
- "Soft Materials" covers a wide range of disciplines, from synthesis and characterisation to processing and real-world applications.
- Core topics include polymeric materials, gels and hydrogels, liquid crystals, microfluidics, active materials, and micro/nanorobotic systems..

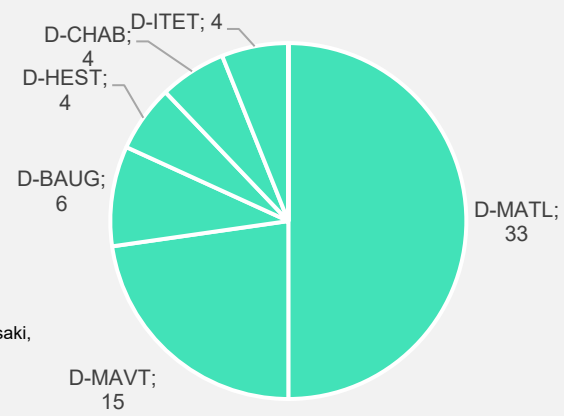
2 Organisation and Focus

Track co-chairs

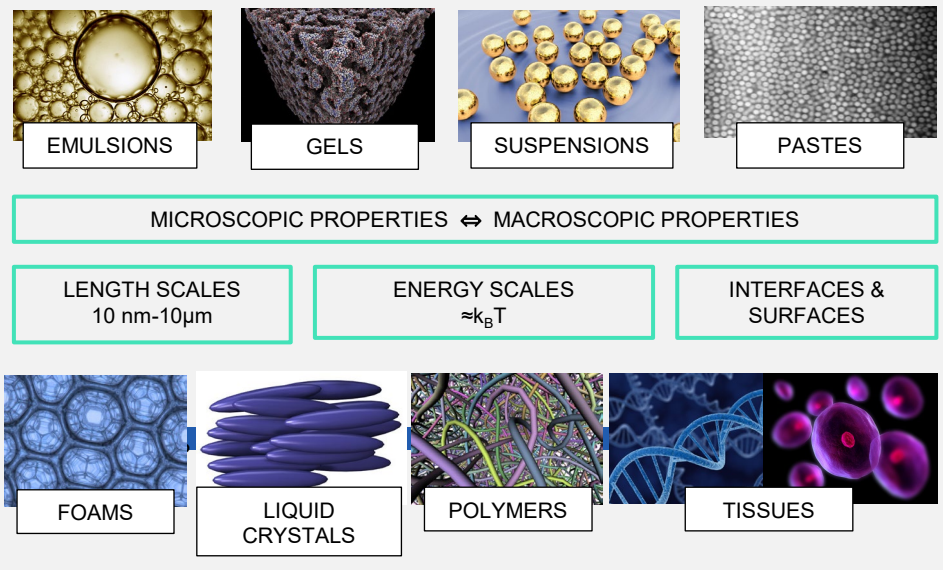
Prof. Dr. Lucio Isa
Soft Materials and Interfaces, D-MATL

Prof. Dr. Athina Anastasaki,
Polymeric Materials,
D-MATL

Doctoral students in track



Soft materials of the future

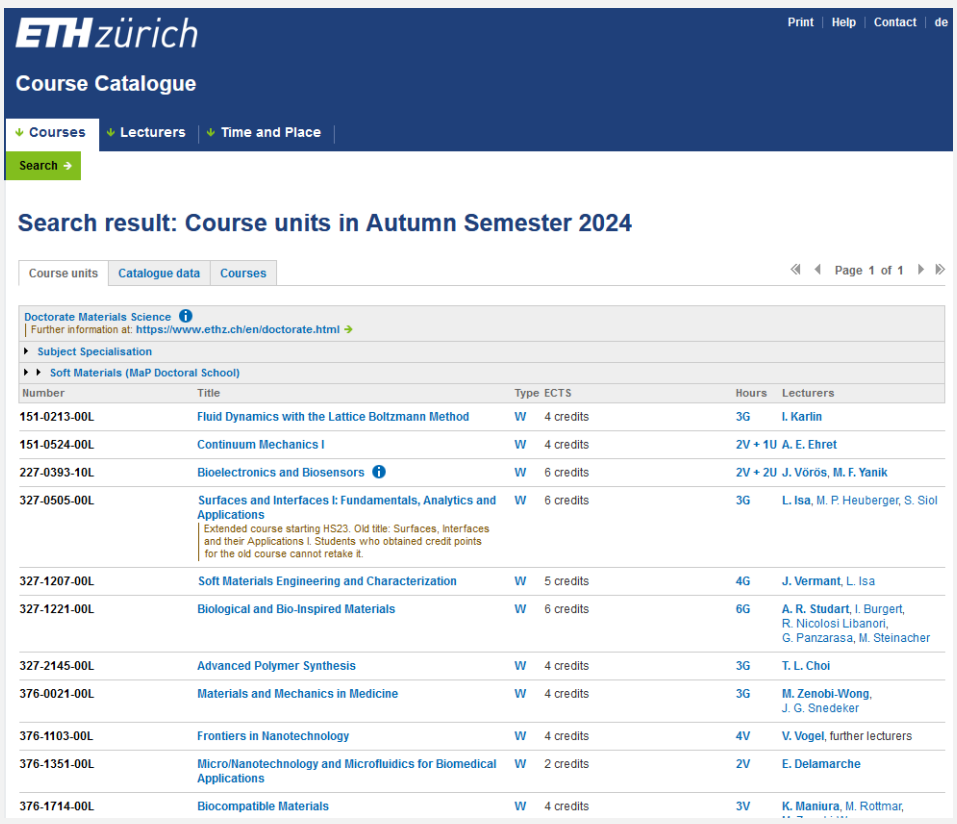


3 Events and Courses

Current and past events

- Soft seminars
- Machine Learning course
- Soft lab visits

→ www.doctoral-school.ethz.ch/events



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Course Catalogue

Courses | Lecturers | Time and Place | Search →

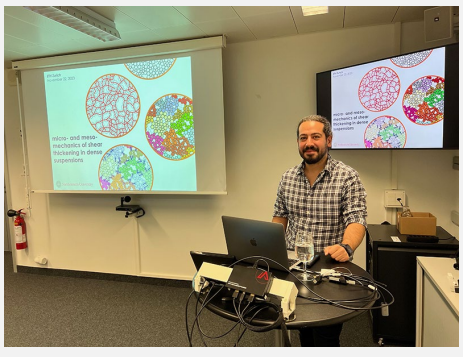
Search result: Course units in Autumn Semester 2024

Course units | Catalogue data | Courses — Page 1 of 1

Doctorate Materials Science
Further information at: https://www.ethz.ch/en/doctorate.html →
Subject Specialisation
Soft Materials (MaP Doctoral School)

Number	Title	Type	ECTS	Hours	Lecturers
151-0213-00L	Fluid Dynamics with the Lattice Boltzmann Method	W	4 credits	3G	I. Karlin
151-0524-00L	Continuum Mechanics I	W	4 credits	2V + 1U	A. E. Ehret
227-0393-10L	Bioelectronics and Biosensors	W	6 credits	2V + 2U	J. Vörös, M. F. Yanik
327-0505-00L	Surfaces and Interfaces I: Fundamentals, Analytics and Applications. Extended course starting HS23. Old title: Surfaces, Interfaces and their Applications I. Students who obtained credit points for the old course cannot retake it.	W	6 credits	3G	L. Isa, M. P. Heuberger, S. Siol
327-1207-00L	Soft Materials Engineering and Characterization	W	5 credits	4G	J. Vermant, L. Isa
327-1221-00L	Biological and Bio-Inspired Materials	W	6 credits	6G	A. R. Studart, I. Burgert, R. Nicolosi Libanori, G. Panzarasa, M. Steinacher
327-2145-00L	Advanced Polymer Synthesis	W	4 credits	3G	T. L. Choi
376-0021-00L	Materials and Mechanics in Medicine	W	4 credits	3G	M. Zenobi-Wong, J. G. Snedeker
376-1103-00L	Frontiers in Nanotechnology	W	4 credits	4V	V. Vogel, further lecturers
376-1351-00L	Micro/Nanotechnology and Microfluidics for Biomedical Applications	W	2 credits	2V	E. Delamarche
376-1714-00L	Biocompatible Materials	W	4 credits	3V	K. Maniura, M. Rottmar,

4 Impressions



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