

BIOENG-458 - Next-generation Biomaterials
Prof. Li Tang (li.tang@epfl.ch), Alexandre Persat (alexandre.persat@epfl.ch)
Spring 2025 SYLLABUS

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Lectures (L)	Friday, 15h15-17h00	BS 170
Exercises (E)	Wednesday, 12h15-14h00	BS 160

Date	Class	Content/Activity	Teacher(s)
21-Feb	L1	Introduction	Alex
		none	
28-Feb	L2	Nanobiomaterials	Li
	E1	Group project: topic introduction	TAs
7-Mar	L3	Organoid technology	Prof. Matthias Lutolf
	E2	Group project: groups and topics finalized	TAs
14-Mar	L4	Synthetic Biology meets Biomaterials	Alex
	E3	Group project	TAs
21-Mar	L5	Biomaterials for tissue engineering	Li
	E4	Group project	TAs
28-Mar	L6	Living biomaterials	Alex
	E5	Group project	TAs
4-Apr	L7	Smart biomaterials for biosensing	Prof. Nako Nakatsuka
	E6	Group project	TAs
11-Apr	L8	Microrobotics for medicine	Prof. Simone Schürle
	E7	Group project (1-page outline due)	TAs
18-Apr		Easter	
25-Apr		Easter	
2-May	L9	Engineered hydrogels for mechanobiology	Prof. Eileen Gentleman
	E8	Group project	TAs
9-May	L10	Biomaterials for cell&gene therapy	Li
	E9	Group project	TAs
16-May	L11	Workshop to prepare report/presentation	all
	E10	Group project	TAs
23-May	L12	Final presentation I	all
30-May	L13	Final presentation II	all
		Final Exam:TBA	

Lectures (L) guest lectures: 4
 Final presentation: 2

Exercises (E) Group project: 10