

## Studies Plan

### Mineur : Technologies biomédicales 2025-26

#### Minor : Biomedical Technologies

Courses				Exam Session	Exam	Credit
Lang.	Code	Sect.	Teacher			
<b>Analog circuits for biochip</b>						
E	EE-518	EL	Carrara Schmid Skrivervik	Sum	Written	3
<b>Applied biomedical signal processing</b>						
E	EE-512	EL	Lemay	Win	Written	4
<b>Basics in bioinstrumentation</b>						
E	BIOENG-421	SV	Merten	Win	During the semester	4
<b>Bioelectronics and biomedical microelectronics</b>						
E	EE-519	EL	Schmid	Win	Written	3
<b>Bioimage informatics</b>						
E	BIO-410	SV	Sage Seitz	Sum	Written	4
<b>Biomechanics of the cardiovascular system</b>						
E	ME-481	GM	Stergiopoulos	Sum	Written	3
<b>Biomechanics of the musculoskeletal system</b>						
E	ME-482	GM	Pioletti	Sum	During the semester	5
<b>Biomedical optics</b>						
E	BIOENG-445	SV	Wagnières	Win	Oral	3
<b>Bio-nano-chip design</b>						
E	EE-517	EL	Carrara	Win	Written	4
<b>Biophysics : physics of biological systems</b>						
E	PHYS-302	PH	Rahi	Win	During the semester	4
<b>Biophysics : physics of the cell</b>						
E	PHYS-301	PH	Manley	Sum	Written	3
<b>Cellular biology and biochemistry for engineers</b>						
E	BIO-105	SV	Zufferey	Win	Written	4
<b>Computational neurosciences: neuronal dynamics</b>						
E	NX-465	NX	Gerstner	Sum	Written	5
<b>Experimental biomicroscopy</b>						
E	MICRO-562	SV	Altug Seitz	Sum	During the semester	4
<b>Fundamentals of biomedical imaging</b>						
E	PHYS-438	PH	Xin	Sum	Written	4
<b>Fundamentals of biomicroscopy</b>						
E	MICRO-561	SV	Altug	Win	Written	4
<b>Fundamentals of biophotonics</b>						
E	BIO-443	SV	Radenovic	Sum	During the semester	3
<b>Fundamentals of biosensors and electronic biochips</b>						
E	EE-515	EL	Guiducci	Win	Written	3
<b>Light, liquids and interfaces</b>						
E	MICRO-390	MT	Roke	Sum	Written	4
<b>Mechanobiology: how mechanics regulate life</b>						
E	ME-480	GM		Win	During the semester	4
<b>Microfabrication</b>						

<b>technologies</b>						
E	MICRO-331	MT	Brugger Zhang	Win	Written	4
<b>MRI Practicals on CIBM preclinical imaging systems</b>						
E	PHYS-473	PH	Cudalbu Moldovan Lanz Lé	Win	During the semester	4
<b>Nanobiotechnology</b>						
E	CH-413	CGC	Steinauer	Sum	During the semester	3
<b>Neural interfaces</b>						
E	NX-422	NX	Lacour Shoaran	Win	During the semester	6
<b>Neural signals and signal processing</b>						
E	NX-421	NX	Micera Van De Ville	Win	Written	6
<b>Neuroscience: cellular and circuit mechanisms</b>						
E	BIO-482	SV	Crochet Petersen	Win	During the semester	5
<b>New tools &amp; research strategies in personalized health</b>						
E	BIO-491	SV	Fellay Friedli	Sum	During the semester	4
<b>Numerical methods in biomechanics</b>						
E	ME-484	GM	Terrier	Sum	Written	3
<b>Optical engineering (for MT)</b>						
F	MICRO-321(a)	MT	Achouri Martin	Win	Written	6
<b>Physiology by systems</b>						
F	BIO-377	SV	Roy	Sum	Written	4
<b>Project in biomedical technologies</b>						
E	MICRO-563	MT	Profs divers	Sum Win	During the semester	8
<b>Regulatory, quality and clinical affairs</b>						
E	NX-451	NX	Rochat	Sum	During the semester	3
<b>Seminar in physiology and instrumentation</b>						
	MICRO-568	MT	Radenovic	Win	Written	2
<b>Sensors in medical instrumentation</b>						
E	EE-511	EL	Chételat Ionescu	Sum	Written	3
<b>Translational neuroengineering</b>						
E	NX-423	NX	Blanke Courtine Hummel Micera	Sum	Written	6