

Studies Plan

EDPO - Photonics 2023-24

Core courses

Courses			Exam	Credit
Language Code	Section	Teacher		
3D Printing with light (Next time: Spring 2025)				
E	MICRO-722	EDPO	Moser Psaltis	Oral 1
Advanced electromagnetics (Next time Fall 2024 to be confirmed)				
E	EE-624	EDPO	Fleury	During the semester 3
Integrated Nonlinear Photonics (Block course October 16-20, 2023)				
E	PHYS-700	EDPO	Galland Volet	Oral presentation 3
Modern photovoltaic technologies (Next time June 2024 to be confirmed)				
E	PHYS-609	EDPO	Haug Heier Romanyuk	Oral presentation 2
Nonlinear fibre optics (Next time Fall 2024 to be confirmed)				
E	PHYS-607	EDPO	Brès Thévenaz	Oral presentation 2
Nonlinear Spectroscopy (Next time: Spring 2024 to be confirmed)				
E	PHYS-610	EDPO	Roke	Written 3
Optical Computing (Next time: Spring 2024 to be confirmed)				
E	MICRO-608	EDPO	Moser Psaltis	Term paper 1
Photonic crystals (Next time: Fall 2024 to be confirmed)				
E	PHYS-605	EDPO	Houdré	Oral 3
Semiconductor photonics and quantum structures (Next time: Spring 2024 to be confirmed)				
E	PHYS-635	EDPO	Grandjean	Oral 2
Other doctoral courses (EDOC)				
Courses			Exam	Credit
Language Code	Section	Teacher		
Advanced biomedical imaging methods and instrumentation (Next time: Fall 2023)				
E	PHYS-719	EDPY	Invited lecturers Lê Mishkovsky	Term paper 4
Fundamentals of superresolution optical microscopy and Scanning Probe Microscopy (Next time: Spring)				
E	PHYS-631	EDPY	Sekatski	Multiple 2
Optical MEMS and micro-optics (November 14th to 17th, 2023 (Microcity, Neuchatel))				
E	MICRO-605	EDMI	Ataman	Written 1
Quantum Information Theory and Computation (Not offered this year)				
E	COM-611	EDIC	Macris	Oral 4
Research seminars in Electrical Engineering - FALL (Next time: Fall 2023)				
E	EE-625(a)	EDEE	Choo Fleury Matioli	Oral presentation 1

Research seminars in Electrical Engineering - SPRING*(Next time: Spring 2024)*

E	EE-625(b)	EDEE	Choo Fleury Matioli	Oral presentation	1
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External courses

Courses			Exam	Credit	
Language Code	Section	Teacher			
Fundamental studies on aqueous interfaces <i>(Registration via https://sites.google.com/view/studiesondroplets)</i>					
E	PHYS-801	EDPO	Roke	Oral presentation	1
Nanophotonics and its application for society <i>(July 10-14, 2023 Registration via http://nanophotonics4society23.epfl.ch/)</i>					
E	PHYS-816	EDPO	Tagliabue	Oral	2

Master courses

Courses			Exam	Credit	
Language Code	Section	Teacher			
Biomicroscopy I					
E	MICRO-561	SV	Altug	Written	3
Biomicroscopy II					
E	MICRO-562	SV	Altug Seitz	During the semester	4
Deep learning for optical imaging					
E	MICRO-573	MT	Psaltis	During the semester	3
Fundamentals of biomedical imaging					
E	PHYS-438	PH	Gruetter	Written	4
Imaging optics					
E	MICRO-421	MT	Psaltis	During the semester	3
Lasers: theory and modern applications					
E	MICRO-422	MT	Kippenberg Moser	Written	4
Nonlinear optics for quantum technologies <i>(pas donné en 2023-24)</i>					
E	PHYS-470	PH		Oral	4
Optical properties of materials					
E	MSE-482	MX	Marchioro Nüesch	Written	3
Optics laboratories I					
E	MICRO-423	MT	Psaltis Pu	During the semester	3
Photomedicine					
E	CH-448	CGC	Wagnières	Oral	2
Quantum optics and quantum information					
E	PHYS-454	PH	Brantut	Written	6
Selected topics in advanced optics					
E	MICRO-420	MT	Martin	Oral	3