

Studies Plan

Minor : Photonics 2024-25

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Courses				Exam Session	Exam	Credit
Lang.	Code	Sect.	Teacher			
Biomedical optics						
E	BIOENG-445	SV	Wagnières	Win	Oral	3
Biomicroscopy I						
E	MICRO-561	SV	Altug	Win	Written	4
Biomicroscopy II						
E	MICRO-562	SV	Altug Seitz	Sum	During the semester	4
Classical and quantum photonic transducers						
E	MICRO-410	MT		Sum	Oral	3
Computational optical imaging						
E	MICRO-421	MT	Psaltis	Sum	During the semester	4
Fundamentals & processes for photovoltaic devices						
E	MICRO-565	MT	Ballif	Sum	Written	3
Fundamentals of biophotonics						
E	BIO-443	SV	Radenovic	Sum	During the semester	3
Fundamentals of integrated photonic components						
E	MICRO-471	MT		Win	Oral	4
Image processing I						
E	MICRO-511	MT	Unser Van De Ville	Win	Written	3
Image processing II						
E	MICRO-512	MT	Sage Unser Van De Ville	Sum	Written	3
Laser fundamentals and applications for engineers						
E	MICRO-426	MT	Moser	Sum	Oral	3
Laser microprocessing						
E	MICRO-520	MT	Hoffmann	Sum	Oral	2
Lasers: theory and modern applications						
E	MICRO-422	MT	Kippenberg Moser	Win	Written	4
Microfabrication technologies						
E	MICRO-331	MT	Brugger	Win	Written	4
Nanophotonics						
E	MICRO-516	MT	Iadanza Moselund	Sum	Oral	3
Nonlinear Optics						
E	PHYS-501	MT	Roke	Sum	Written	4
Nonlinear optics for quantum technologies						
E	PHYS-470	PH	Galland	Sum	Written	4
Optical design with ZEMAX						
E	MICRO-517	MT	Pu	Win	During the semester	3
Optical detectors						
E	MICRO-523	MT	Bruschini	Win	Oral	3
Optical engineering (for MT)						
F	MICRO-321(a)	MT	Achouri Martin	Win	Written	6
Optics laboratories (autumn)						
E	MICRO-424	MT	Pu	Win	During the semester	3

Optics laboratories (spring)						
E	MICRO-423	MT	Pu	Sum	During the	3 semester
Organic and printed electronics						
E	MICRO-505	MT	Briand Subramanian	Sum	Oral	2
Photomedicine						
E	CH-448	CGC	Wagnières	Sum	Oral	3
Photonic systems and technology						
E	EE-440	EL	Brès	Sum	Written	4
Physics of photonic semiconductor devices						
E	PHYS-434	PH	Butté	Sum	Written	4
Project in photonics						
E	MICRO-488	MT	Profs divers	Sum Win	During the	10 semester
Quantum electrodynamics and quantum optics						
E	PHYS-453	PH	Kippenberg	Win	Written	6
Quantum optics and quantum information						
E	PHYS-454	PH	Brantut	Sum	Written	6
Quantum physics III						
E	PHYS-425	PH	Yazyev	Win	Oral	6
Selected topics in advanced optics						
E	MICRO-420	MT	Martin	Win	Oral	3
Semiconductor physics and light-matter interaction						
E	PHYS-433	PH	Butté	Win	Written	4