

Photonics

Recommended Course of Studies for Guest Students on a Master's level

Code	Titel	ECTS	Language of Instruction	offered
PAFMF003	Solid State Optics	8	English	SoSe
PAFMF009	Optoelectronics	4	English	SoSe
PAFMF018	Quantum Information Theory	4	English, German	tba
PAFMF021	2D materials	4	English	WiSe
PAFMO001	Fundamentals of Modern Optics	8	English	WiSe
PAFMO002	Structure of Matter	8	English	WiSe
PAFMO004	Laser Physics	8	English	SoSe
PAFMO005	Optical Metrology and Sensing	4	English	WiSe
PAFMO006	Introduction to Optical Modeling	4	English	WiSe
PAFMO007	Experimental Optics	6	English	Wise
PAFMO008	Internship	10	English	SoSe
PAFMO009	Research Lab	18	English	WiSe
PAFMO100	Accelerator-based Modern Physics	4	English, p.r.n. German	WiSe + SoSe
PAFMO101	Active Photonic Devices	4	English	WiSe
PAFMO102	Analytical Instrumentations	4	English	SoSe
PAFMO103	Applied Laser Technology I	4	English	SoSe
PAFMO104	Applied Laser Technology II	4	English	WiSe
PAFMO106	Atomic Physics at High Field Strengths	4	English, p.r.n. German	WiSe + SoSe
PAFMO107	Attosecond Laser Physics	4	English	SoSe
PAFMO120	Biomedical Imaging – Ionizing Radiation	4	English	WiSe
PAFMO121	Biomedical Imaging – Non Ionizing Radiation	4	English	SoSe

Code	Titel	ECTS	Language of Instruction	offered
PAFMO122	Biophotonics	4	English	SoSe
PAFMO130	Computational Photonics	4	English	SoSe
PAFMO131	Fundamental Atomic and Nuclear Processes in Highly Ionized Matter	4	English, p.r.n. German	WiSe + SoSe
PAFMO132	Design and Correction of Optical Systems	4	English	SoSe
PAFMO140	Diffractive Optics	4	English	WiSe
PAFMO150	Renewable Energies	4	English, p.r.n. German	WiSe
PAFMO151	Experimental Nonlinear Optics	4	English	WiSe
PAFMO160	Fiber Optics	4	English	SoSe
PAFMO170	High-Intensity/Relativistic Optics	4	English	WiSe
PAFMO171	History of Optics	4	English, German	WiSe
PAFMO180	Image Processing	4	English	SoSe
PAFMO181	Image Processing in Microscopy	4	English, p.r.n. German	WiSe
PAFMO182	Imaging and Aberration Theory	4	English	WiSe
PAFMO183	Introduction to Nanooptics	4	English	WiSe
PAFMO200	Laser Driven Radiation Sources	4	English, p.r.n. German	WiSe
PAFMO201	Laser Engineering	4	English	WiSe
PAFMO203	Lens Design I	4	English	SoSe
PAFMO204	Lens Design II	4	English	WiSe
PAFMO205	Light Microscopy	4	English	WiSe
PAFMO206	Light Source Modeling	4	English	SoSe
PAFMO220	Micro/Nanotechnology	4	English	SoSe
PAFMO221	Microscopy	4	English	SoSe
PAFMO222	Modern Methods of Spectroscopy	4	English, German	SoSe

Code	Titel	ECTS	Language of Instruction	offered
PAFMO230	Nano Engineering	4	English	WiSe
PAFMO231	Nonlinear Dynamics in Optical Systems	4	German, p.r.n. English	SoSe
PAFMO242	Optics for Spectroscopists: Optical Waves in Solids	4	English	SoSe
PAFMO250	Particles in Strong Electromagnetic Fields	4	English	WiSe
PAFMO251	Physical Optics Design	4	English	WiSe
PAFMO252	Physical Optics Modeling	4	English	SoSe
PAFMO253	Physics of Free-Electron Laser	4	English	SoSe
PAFMO254	Physics of Ultrafast Optical Discharge and Filamentation	4	English	WiSe
PAFMO255	Plasma Physics	4	English	SoSe
PAFMO256	Physics of Photovoltaics	4	English	SoSe
PAFMO257	Physical Optics	4	English	SoSe
PAFMO260	Quantum Optics	4	English	SoSe
PAFMO265	Semiconductor Nanomaterials	4	English	SoSe
PAFMO266	Strong-Field Laser Physics	4	English	SoSe
PAFMO270	Theory of Nonlinear Optics	4	English	SoSe
PAFMO271	Thin Film Optics	4	English	WiSe
PAFMO272	Terahertz Technology	4	English	SoSe
PAFMO280	Ultrafast Optics	4	English	WiSe
PAFMO290	XUV and X-Ray Optics	4	English	SoSe
PAFMO901	Topics of Current Research 1	4	English	tba
PAFMO902	Topics of Current Research 2	4	English	tba
PAFMO903	Topics of Current Research 3	4	English	tba
PAFMO904	Topics of Current Research 4	4	English	tba