



Field of specialization 12: Photonics

Exemplary curriculum:⁹

	WS		SS	
	SWS	LP	SWS	LP
Basic Modules of Specialization (BMS)				
Communications Engineering II (from WiSe 25/26: 6 LP)	2+1	4		
or Nachrichtentechnik II (last time SoSe 24)			2+1	4
Radio-Frequency Electronics (from WiSe 25/26: 6 LP)	2+1+1	5		
Optical Networks and Systems	2+1	4		
Compulsory Modules of Specialization (CMS)				
Electromagnetics and Numerical Calculation of Fields	2+1	4		
Photonic Integrated Circuit Design and Applications			2+2	6
Mikrowellentechnik (D, WS) / Microwave Engineering (E, SS)	2+1	5	2+1	5
Digital Signal Processing in Optical Communications – with Practical Exercises			2+2	6
Optical Waveguides and Fibers	2+1	4		
Nonlinear Optics			2+2	6
Optical Transmitters and Receivers	2+2	6		
Photonics and Communications Lab			4	6
Sum (BMS+CMS)		27		29

	WS		SS	
	SWS	LP	SWS	LP
Elective Modules of Specialization (EMS)				
Recommended electives, see next page				
...				
Sum (see below)				

	WS		SS	
	SWS	LP	SWS	LP
Interdisciplinary Qualifications				
see Module M-ETIT-105803				
...				
Sum (in total 6 LP)				

Master's Thesis		LP
Master's Thesis		30

Summary		LP
Basic Modules of Specialization (BMS)		13
Compulsory Modules of Specialization (CMS)		43
Elective Modules of Specialization (EMS)		28
Interdisciplinary Qualifications		6
Master's Thesis		30
Sum		120

Gray backgrounds are used to illustrate credit point (LP) summation in winter term (WS) and summer term (SS).

⁹ If modules are listed in both semesters, only one must be selected. (D) means the lecture is in German, (E) – in English.