

Curriculum Map for Master and Doctoral Degree Student

COMPULSORY COURSES (CREDITS)	Master	1. OPTOELECTRONICS(3)(English) 2. WAVES AND FIELDS IN OPTOELECTRONICS(I) (3)(English) 3. SEMINAR (I) (1) 4. SEMINAR (II) (1)		
	PHD	1. SEMINAR (I) (1) 2. SEMINAR (II) (1)		
RESEARCH FIELD	PHOTONIC MATERIALS AND DEVICES	OPTICAL COMMUNICATIONS AND OPTICAL INTERCONNECT	DISPLAY AND REGENERATED ENERGY	
CORE COURSES (CREDITS)	1. OPTOELECTRIC MATERIALS(3) (English)	1. FIBER-OPTIC COMMUNICATION SYSTEMS(3) (English)	1. THE PRINCIPLE AND APPLICATION OF ORGANIC OPTP-ELECTRONIC MATERIALS(3) (English)	
	2. SEMICONDUCTOR OPTOELECTRONIC DEVICES(3) (English)	2. PRINCIPLES OF MODERN COMMUNICATION(3) (English)	2. LIQUID CRYSTAL DISPLAY TECHNOLOGIES(3) (English)	
ELECTIVE COURSES (CREDITS)	1. FUNDAMENTALS OF MODERN OPTICS(3)	1. PHYSICAL OPTICS(3)	1. ORGANIC ELECTRO-OPTICAL EXPERIMENT(3)	
	2. PHOTONIC CRYSTALS(3)	2. ELECTRO-OPTICS LAB (一) (3)	2. ADVANCES IN LIQUID CRYSTAL DEVICES(3)	
	3. PRINCIPLES AND APPLICATIONS OF PLASMONICS(3)	3. CONTEMPORARY OPTICAL MICROSCOPY(3)	3. PHYSICS OF ORGANIC SEMICONDUCTORS(3)	
	4. PRINCIPLES AND DESIGN OF INTEGRATED OPTO-ELECTRONIC DEVICES(3)	4. WAVES AND FIELDS IN OPTOELECTRONICS (II) (3)	4. ORGANIC SOLAR CELLS(3)	
	5. PRINCIPLES AND APPLICATIONS OF SEMICONDUCTOR LASERS(3)	5. FUNCTIONAL OPTICAL FIBER TECHNOLOGY AND APPLICATION(3)	5. LIQUID CRYSTAL OPTOELECTRONIC MATERIALS(3)	
	6. NONLINEAR OPTICS(3)	6. CHARACTERIZATION TECHNIQUE FOR ELECTRO-OPTICS(3)	6. ORGANIC ELECTRO-OPTICAL DEVICES(3)	
	7. APPLICATIONS OF OPTOELECTRONIC DEVICES(3) (English)	7. RANDOM PROCESSES FOR COMMUNICATIONS(3)		
	8. ADVANCED SEMICONDUCTOR PHYSICS AND DEVICES(3) (English)	8. LINEAR WAVE COMPUTATION AND APPLICATIONS(3) (English)		

	9. INNOVATION IN PHOTONICS(3)	9. NUMERICAL METHODS FOR ELECTRO-OPTICAL ENGINEERING(3)	
	10. SURFACE ANALYSIS TECHNIQUES OF MATERIALS(3)		
SPECIAL TOPICS COURSES (CREDITS)	1. SPECIAL TOPICS IN HIGH-SPEED OPTOELECTRONIC DEVICES(3) (English)	1. SPECIAL RESEARCH ON NANOPHOTONIC COMPUTATION(3)	1. SPECIAL TOPICS: ORGANIC SEMICONDUCTING MATERIALS(3)
	2. SPECIAL TOPICS IN SEMICONDUCTOR OPTOELECTRONICS(3)	2. SPECIAL TOPICS IN SPECIALTY FIBER(3)	2. SPECIAL TOPICS IN ORGANIC ELECTROLUMINESCENCE MATERIALS(3)
	3. SPECIAL TOPICS IN SEMICONDUCTOR NANO-STRUCTURE AND MEASUREMENTS(3)	3. SPECIAL TOPICS IN NONLINEAR FIBER TRANSMISSION(3)	3. SPECIAL TOPICS IN LIQUID CRYSTAL OPTICS(3)
	4. SPECIAL TOPICS IN OPTOELECTRONIC DEVICES FOR OPTICAL COMMUNICATION(3)	4. SPECIAL TOPICS IN ULTRAFAST PHOTONICS(3)	4. SPECIAL TOPICS IN EMERGING DISPLAY TECHNOLOGIES(3)
	5. SPECIAL TOPICS IN SEMICONDUCTOR PROCESSING(3)	5. SPECIAL TOPICS IN ULTRAFAST PHOTONICS-ADVANCED(3)	5. SPECIAL TOPICS IN ORGANIC SOMICONDUCTIVE MATERIALS AND DEVICES(3)
	6. SPECIAL TOPICS ON PLANAR LIGHTWAVE CIRCUITS(3)	6. SPECIAL TOPIC IN ULTRA LONG-HAUL OPTICAL FIBER COMMUNICATION SYSTEM(3)	6. SPECIAL TOPICS IN ORGANIC ELECTROLUMINESCENCE DEVICES(3)
	7. SPECIAL TOPICS IN INTEGRATED PHOTONIC DEVICES(3)	7. SPECIAL TOPICS ON DESIGNS OF PHOTONIC CRYSTAL DEVICES(3)	7. SPECIAL TOPICS ON PHOTONIC LIQUID CRYSTAL(3)
	8. INDEPENDENT STUDIES IN NANOPHOTONICS(3)	8. SPECIAL TOPICS IN INTEGRATED PHOTONIC DEVICES(3)	8. INDEPENDENT STUDIES IN ANALYSIS OF SEMICONDUCTOR DEVICES(3)
	9. SPECIAL TOPICS ON SOLAR CELLS(3) (English)	9. INDEPENDENT STUDIES IN ADVANCED SPECIALTY OPTICAL FIBER(3)	9. INDEPENDENT STUDIES IN 3D PRINTING MATERIALS AND TECHNIQUES(3)
	10. SPECIAL TOPICS ON SEMICONDUCTOR MATERIALS FOR LIGHT ENERGY CONVERSION(3) (English)	10. INDEPENDENT STUDIES IN ADVANCED OPTICAL MODULATION FORMATS(3)	

		11. INDEPENDENT STUDIES IN SIGNAL PROCESSING FOR OPTICAL FIBER COMMUNICATION(3)	
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【Notification】

- (1) **For Master Degree Student:** Each student of Master’s Program, within 2 years after enrollment, has to complete taking the required courses and 26 credits, which are the minimum number of credits for graduation. Of the 26 credits, the student has to complete taking 15 credits of the professional photonics courses opened by this Department (exclusive of Research Project Course), “including 4 compulsory courses and 1 compulsory elective core courses”.
- (2) **For Doctoral Degree Student:** Each student must complete the minimal graduating credit requirement of 18 credits, of which 15 credits are of professional photonics courses established by the department, including two compulsory courses—Seminar Course (I) and (II)