

Integrated curriculum planning chart **Map**

Electronics and materials science group (includes courses such as microelectronics, electronic materials)

Micro electronics	1 st Master		2 nd Master		1 st PHD		2 nd PHD	
	1 st semester	2 nd semester	1 st semester	2 nd semester	1 st semester	2 nd semester	1 st semester	2 nd semester
Process related	SURFACE CHARACTERIZATION TECHNIQUE	SURFACE CHARACTERIZATION TECHNIQUE						
	Semiconductor processes	Nano-Node Semiconductor Introduction	SEMICONDUCTOR & ADVANCED NANOTECHNOLOGY PROCESS INTRODUCTION (1)	SEMICONDUCTOR & ADVANCED NANOTECHNOLOGY PROCESS INTRODUCTION (2)				

	Nanometer Devices and Technologies for Semiconductors			ELECTRO-OPTICAL DISPLAY DEVICE PHYSICS AND TECHNOLOGIES	Advanced fabrication process for High power GaN-based light emitting diodes			
Component	SURFACE CHARACTERIZATION TECHNIQUE	SURFACE CHARACTERIZATION TECHNIQUE		CARRIER TRANSPORT IN SEMICONDUCTOR	SPECIAL TOPICS ON MICROWAVE SEMICONDUCTOR DEVICES AND INTEGRATED CIRCUITS			
	ULSI DEVICES PHYSICS	Physics of Semiconductor Devices	HIGH SPEED DEVICES	III-V Compound Semiconductor MOSFETs	NEGATIVE DIFFERENTIAL RESISTANCE SWITCHING DEVICES	POWER SEMICONDUCTOR DEVICES AND INTEGRATED CIRCUITS		
	OPTO-ELECTRONIC DEVICES PHYSICS	COMPOUND SEMICONDUCTOR DEVICES	NANO PHOTONICS	ELECTRO-OPTICAL DISPLAY DEVICE PHYSICS AND	THIN FILM SOLAR CELLS – SPECIAL TOPICS			

				TECHNOLOGIE S				
Optical related	SURFACE CHARACTERIZATION TECHNIQUE	SURFACE CHARACTERIZATION TECHNIQUE			Advanced fabrication process for High power GaN-based light emitting diodes			
	OPTO-ELECTRONIC DEVICES PHYSICS	COMPOUND SEMICONDUCTOR DEVICES	NANO PHOTONICS	Optoelectronics Display Physics and Technology	THIN FILM SOLAR CELLS – SPECIAL TOPICS		SPECIAL TOPIC ON WIDE BANDGAP SEMICONDUCTORS	
	INTRODUCTION TO OPTICS	SEMICONDUCTOR PHOTONICS	LASER ENGINEERING	INTEGRATED OPTICS		Special Topics of Integrated Optics Devices		
						Special Topics on Physics of Optical Filter Devices		

electronic	1 st Master		2 nd Master		1 st PHD		2 nd PHD	
	1 st semester	2 nd semester	1 st semester	2 nd semester	1 st semester	2 nd semester	1 st semester	2 nd semester

material								
Electronic ceramics program		CERAMIC SEMICONDUCTOR	CERAMIC COMMUNICATION DEVICE					
	Physics of Solid-State Materials	SOLID THERMODYNAMICS	Ferroelectric Materials and Devices					
	MATERIALS SCIENCE	CRYSTAL STRUCTURE AND PRINCIPLE TECHNIQUES FOR MATERIAL CHARACTERIZATIONS	MICROWAVE CIRCUIT & DEVICES	SPECIAL TOPICS OF ACOUSTIC ELECTRO-OPTIC DEVICE	Special Topics of Sensors			
	Physics of Nano Scaled Materials and Devices	ELECTRONIC MATERIALS ENGINEERING	RF PASSIVE COMPONENTS	Special Topics of System In Package	Special Topics on Ceramic Materials	SPECIAL TOPIC OF ELECTRO CERAMICS		
	MICROWAVE ENGINEERING	THICK FILM TECHNOLOGY	LOW TEMPERATURE COFIRE					

			CERAMIC MATERIAL AND COMPONENTS					
	TECHNOLOGICAL JAPANESE	ELECTRONIC CERAMICS	ACOUSTIC ELECTRO-OPTIC DEVICE					
Photovoltaic-related program	SOLID THERMODYNAMICS	Introduction to Optics	ACOUSTIC ELECTRO-OPTIC DEVICE					
	Physics of Solid-State Materials	CRYSTAL STRUCTURE AND PRINCIPLE TECHNIQUES FOR MATERIAL CHARACTERIZATIONS	SEMICONDUCTOR PHOTONICS	SPECIAL TOPICS OF ACOUSTIC ELECTRO-OPTIC DEVICE	Special Topics of Sensors			
	MATERIALS SCIENCE	ELECTRONIC MATERIALS ENGINEERING	THE COMPOUND SEMICONDUCTOR					
	Physics of Nano Scaled	SURFACE CHARACTERIZATION						

	Materials and Devices	TION TECHNIQUE						
	Engineering English	Physics of Semiconductor Devices						