

Area dei Servizi Istituzionali Settore Servizi agli studenti e alla didattica Ufficio Dottorati di ricerca

ATTACHMENT 3

LAST REVISED 21/05/2020

PhD IN CHEMISTRY (in partnership with the University Ca' Foscari Venezia) OVERVIEW

		IN BRIEF	
Lines of research	1	Biocrystallography	
	2	Pharmaceutical biology	
	3	Inorganic, bio-inorganic and organometallic chemistry	
	4	Organic and bio-organic chemistry	
	5	Homogeneous and heterogeneous catalysis and bio-catalysis	
	6	Supramolecular chemistry and catalysis	
	7	Theoretical and computational chemistry	
	8	Medicinal chemistry	
	9	Analytical and environmental chemistry	
	10	Chemistry for Cultural Heritage	
	11	Electrochemistry and sensors	
	12	Green and sustainable chemistry	
	13	Chemical engineering	
	14	Advanced materials and thin films	
	15	Nanosciences and nanotechnologies	
	16	Molecular spectroscopy	
	17	Pharmaceutical Technologies	
	18	Physical chemistry	
	19	Industrial chemistry	
Administrative location	Univ	University of Trieste	
Organizing Department	Dep	Department of Chemical and Pharmaceutical Sciences	
Participating Departments	Dep	Department of Engineering and Architecture	
	Dep	Department of Life Sciences	
Partner University	University Ca' Foscari Venezia		
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Partner University Department	Department of Molecular Sciences and Nanosystems				
Duration	3 years				
Attendance abroad that entitles to a scholarship increase - min. max. of months for each PhD student (over 3 years)	2 - 18				
Official language	Italian				
Language (alternative to Italian) partially used in PhD activities	The training activity is partially performed in English: some classes and most of the seminars are in English. Also those classes that are normally taught in Italian are given in English on demand (if attended by foreign students). At the annual meetings both the plenary lectures given by the invited speakers and the oral presentations given by the students are in English. The annual projects and reports, and the large majority of the theses are also in English.				
<i>Subject Areas</i> (in alphabetical code order)	02	PHYSICS			
	03	CHEMISTRY			
	05	BIOLOGY			
	09	INDUSTRIAL AND INFORMATION ENGINEERING			
Macro Research Fields	02/B	PHYSICS OF MATTER			
(in alphabetical code order)	03/A	ANALYTICAL AND PHYSICAL CHEMISTRY			
	03/B	INORGANIC CHEMISTRY AND APPLIED TECHNOLOGIES			
	03/C	ORGANIC, INDUSTRIAL AND APPLIED CHEMISTRY			
	03/D	MEDICINAL AND FOOD CHEMISTRY AND APPLIED TECHNOLOGIES			
	05/E	EXPERIMENTAL AND CLINICAL BIOCHEMISTRY AND MOLECULAR BIOLOGY			
	05/G	EXPERIMENTAL AND CLINICAL PHARMACOLOGY			
	09/D	CHEMICAL AND MATERIALS ENGINEERING			
Scientific Disciplinary Sectors	BIO/11	MOLECULAR BIOLOGY			
(in alphabetical code order)	BIO/14	PHARMACOLOGY			
	CHIM/01	ANALYTICAL CHEMISTRY			
	CHIM/02	PHYSICAL CHEMISTRY			
	CHIM/03	GENERAL AND INORGANIC CHEMISTRY			
	CHIM/04	INDUSTRIAL CHEMISTRY			
	CHIM/06	ORGANIC CHEMISTRY			
	CHIM/08	PHARMACEUTICAL CHEMISTRY			
	CHIM/09	PHARMACEUTICAL AND TECHNOLOGICAL APPLICATIONS OF CHEMISTRY			
	FIS/01	EXPERIMENTAL PHYSICS			
	ING-IND/24	FUNDAMENTALS OF CHEMICAL ENGINEERING			
Domain European Research	PE	PHYSICAL SCIENCES AND ENGINEERING			
Council	LS	LIFE SCIENCES			
ERC Panels	PE4	PHYSICAL AND ANALYTICAL CHEMICAL SCIENCES: ANALYTICAL CHEMISTRY, CHEMICAL THEORY, PHYSICAL CHEMISTRY/CHEMICAL PHYSICS			

PE5	SYNTHETIC CHEMISTRY AND MATERIALS: MATERIALS SYNTHESIS, STRUCTURE-PROPERTIES RELATIONS, FUNCTIONAL AND ADVANCED MATERIALS, MOLECULAR ARCHITECTURE, ORGANIC CHEMISTRY
PE8	PRODUCTS AND PROCESSES ENGINEERING: PRODUCT DESIGN, PROCESS DESIGN AND CONTROL, CONSTRUCTION METHODS, CIVIL ENGINEERING, ENERGY SYSTEMS, MATERIAL ENGINEERING
LS9	APPLIED LIFE SCIENCES AND BIOTECHNOLOGY: AGRICULTURAL, ANIMAL, FISHERY, FORESTRY AND FOOD SCIENCES; BIOTECHNOLOGY, CHEMICAL BIOLOGY, GENETIC ENGINEERING, SYNTHETIC BIOLOGY, INDUSTRIAL BIOSCIENCES; ENVIRONMENTAL BIOTECHNOLOGY AND REMEDIATION

WHO'S WHO				
Ir	n partnership with the University Ca' Foscari Venezia			
Chair	Prof Enzo Alessio - Department of Chemical and Pharmaceutical Sciences – University of Trieste - phone +39 040.558.3961; email <u>alessi@units.it</u>			
Vice	Prof. Alessandro Scarso – Department of Molecular Sciences and Nanosystems – University Ca' Foscari Venezia - phone +39 041 234 8569 - Lab.: +39 041 234 8575; fax +39 041 234 8517; email <u>alesca@unive.it</u>			
PhD Academic Board	List of members			
Web site	http://web.units.it/dottorato/chimica/en			
Email	dottorato.chimica@units.it			
Course description and objectives	The primary goal of the Ph.D course in Chemistry is the training in order to obtain proper skills in the chemistry field, to carry on an independent and autonomous research activity. Such skills will be important to be spent in many different situations and institutions, in particular public research institutions (like Universities and Research Institutes) or private companies. In this respect Ph.D students will be trained with a continuous and intense experimental research activity as well as specific high level courses, in order to be competitive at the international level. The future PhD will be trained with all experimental and theoretical tools necessary to manage general problems which will be encountered when developing new chemical compounds or processes, as well as their industrial implications. Special care will be devoted to the international mobility opportunities and to the ability to present and rationalize the results in an effective manner.			
Job placement opportunities	The job placement opportunities of a future PhD will be rather wide. First the most adequate job opportunity would be that of a researcher in public institutions or private companies. In particular the PhD title would be important when special need to manage and carry on research or complex problems solving are necessary to be performed in an independent, autonomous and creative way. Also special responsibility positions in industries or large companies would be suitable for PhD.			
Main cooperating international Universities and Research Institutions	1 University of Sidney, Australia			
	2 University of Bordeaux, France			
	3 University of Malaga, Spain			
	4 University of Cardiff, UK			
	5 University of Groningen, Netherlands			