

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

## **ATTACHMENT 3**

LAST REVISED 16/05/2019

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

		IN BRIEF	
	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	
Lines of research	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	Ur	University of Trieste	
Organizing Department	De	Department of Chemical and Pharmaceutical Sciences	
	De	epartment of Mathematics and Geosciences	
Participating Departments	De	Department of Engineering and Architecture	
	De	epartment of Life Sciences	

Partner University	University Ca' Foscari Venezia				
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 PhD course activity is partially performed in English, since some seminars and some courses are given in English. In case of PhD students from abroad, also courses which are normally given in Italian could be given in English. The PhD students are encouraged to use English as the language for their oral presentation in the occasion of the annual meeting.				
Subject Areas	02	PHYSICS			
(in alphabetical code order)	03	CHEMISTRY			
	05	BIOLOGY			
Macro Research Fields	09	INDUSTRIAL AND INFORMATION ENGINEERING			
(in alphabetical code order)	02/B	PHYSICS OF MATTER			
(iii dipridicated code craci)	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 (in alphabetical code order)	BIO/11	MOLECULAR BIOLOGY			
(iii aipriabelical 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/09	PHARMACEUTICAL AND TECHNOLOGICAL APPLICATIONS OF CHEMISTRY			
	FIS/01	EXPERIMENTAL PHYSICS			
Demain European Desaurat	ING-IND/24	FUNDAMENTALS OF CHEMICAL ENGINEERING			
Domain European Research Council	PE	PHYSICAL SCIENCES AND ENGINEERING			
ERC Panels	LS	LIFE SCIENCES			
ENG FallelS	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			

REMEDIATION		SCIENCES; BIOTECHNOLOGY, CHEMICAL BIOLOGY, GENETIC ENGINEERING, SYNTHETIC BIOLOGY, INDUSTRIAL BIOSCIENCES; ENVIRONMENTAL BIOTECHNOLOGY AND
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WHO'S WHO				
Ir	n partnership with the University Ca' Foscari Venezia			
Chair	Prof Barbara Milani - Department of Chemical and Pharmaceutical Sciences – University of Trieste - phone +39 040.558.3956; email milaniba@units.it from 01.11.2019:  Prof Enzo Alessio - Department of Chemical and Pharmaceutical Sciences – University of Trieste - phone +39 040.558.3961; email alessi@units.it			
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 <a href="mailto:alessa@unive.it">alessa@unive.it</a>			
PhD Academic Board	<u>List of members</u>			
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.			
	1 University of Sidney, Australia			
Main cooperating international	2 University of Bordeaux, France			
Universities and Research	3 University of Malaga, Spain			
Institutions	4 University of Cardiff, UK			
	5 University of Groningen, Netherlands			