



UNIVERSITÀ  
DEGLI STUDI DI TRIESTE

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

ATTACHMENT 3

LAST REVISED 12/05/2016

**PhD IN  
CHEMISTRY  
(under the agreement 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
- 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

***Lines of research***

***Administrative location***

University of Trieste

***Organizing Department***

Department of Chemical and Pharmaceutical Sciences

***Participating Departments***

Department of Engineering and Architecture

Department of Life Sciences

***Partner University***

University of Ca' Foscari Venezia

***Partner University Department***

Department of Molecular Sciences and Nanosystems

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| <b>Duration</b>  | 3 years  |  |
| <b>Attendance abroad that entitles to a scholarship increase - min. max. of months for each PhD student (over 3 years)</b> | 1-12   |  |
| <b>Official language</b>   | Italian  |  |
| <b>Language (alternative to Italian) partially used in PhD activities</b>  | Some seminars and courses are held in English. If non-Italian speaking students are admitted to the PhD, all courses are may be held in English. |  |
| <b>Subject Areas</b><br>(in alphabetical code order)   | 02   | PHYSICS  |
|  | 03   | CHEMISTRY  |
|  | 05   | BIOLOGY  |
|  | 09   | INDUSTRIAL AND INFORMATION ENGINEERING   |
| <b>Macro Research Fields</b><br>(in alphabetical code order)   | 02/B   | PHYSICS OF MATTER  |
|  | 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/A   | EXPERIMENTAL AND CLINICAL PHARMACOLOGY   |
|  | 09/D   | CHEMICAL AND MATERIALS ENGINEERING   |
| <b>Scientific Disciplinary Sectors</b><br>(in alphabetical code order)   | BIO/15   | PHARMACEUTICAL BIOLOGY   |
|  | 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/12  | CHEMISTRY FOR THE ENVIRONMENT AND FOR CULTURAL HERITAGE  |
|  | FIS/01   | EXPERIMENTAL PHYSICS   |
|  | ING-IND/24   | FUNDAMENTALS OF CHEMICAL ENGINEERING   |
| <b>Domain European Research Council</b>  | PE   | PHYSICAL SCIENCES AND ENGINEERING  |
|  | LS   | LIFE SCIENCES  |
| <b>ERC Panels</b>  | 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

under the agreement with the University Ca' Foscari Venezia

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| <b>Chair</b>   | Prof Mauro Stener – Department of Chemical and Pharmaceutical Sciences – University of Trieste – Via L. Giorgeri, 1 - tel. 040/558.3949; fax 040/558.3903; e-mail <a href="mailto:stener@units.it">stener@units.it</a>   |
| <b>Vice</b>  | Prof. Maurizio Selva – Department of Molecular Sciences and Nanosystems - Ca' Foscari University Venice - tel. 041/234.8687; tel. Lab. 041/234.8982; email <a href="mailto:selva@unive.it">selva@unive.it</a>  |
| <b>Web site</b>  | <a href="http://web.units.it/dottorato/chimica/en">http://web.units.it/dottorato/chimica/en</a>  |
| <b>Email</b>   | <a href="mailto:dottorato.chimica@units.it">dottorato.chimica@units.it</a>   |
| <b>Course description and objectives</b>                                     | 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. |
| <b>Job placement opportunities</b>   | 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.   |
| <b>Main cooperating international Universities and Research Institutions</b> | <ol style="list-style-type: none"><li>1 University of Castilla La Mancha, Spain</li><li>2 University of Sidney, Australia</li><li>3 University of Bordeaux, France</li><li>4 University of Madrid, Spain</li><li>5 University of Zürich, Switzerland</li></ol>   |