

Open selection for admission to doctoral studies at the UNIVERSITÀ DEL PIEMONTE ORIENTALE (UPO)

Information for foreign students and documents required in case of non-Italian academic degree

<https://www.uniupo.it/it/corsi/dottorati-di-ricerca/isciversi-al-dottorato>

The following notes are a short summary of the official statements available at the University web site: www.uniupo.it and in the call for applications.

They are provided here in order to assist non-Italian candidates during the application and selection procedures for doctoral studies.

Doctoral studies are open to candidates without any restriction on citizenship and age.

The UPO PhD courses will last 3 academic years (2022/2023, 2023/2024 and 2024/2025), **from November 1st, 2022 to October 31st, 2025**. The degree will be obtained after a final examination at the end of the three academic years.

UPO offers the following PhD courses:

- **CHEMISTRY AND BIOLOGY**
 - Chemical methodologies for new molecules and nanomaterials;
 - Energy, environmental and food sciences

- **DRUG INNOVATION**

- **ECOLOGY OF CULTURAL AND INSTITUTIONAL SYSTEMS**
 - (Law) Sustainable and solidary democracy: rights, duties, and institutions
 - (Language) Linguistic and literary traditions
 - (History) Historical sciences

- **FOOD, HEALTH AND LONGEVITY**
 - food, microbiota and disease
 - physiopathology of aging

- **MEDICAL SCIENCES AND BIOTECHNOLOGY**
 - Allergic and Autoimmune diseases
 - Neoplastic, metabolic and age-related disease

- **GLOBAL HEALTH, HUMANITARIAN AID AND DISASTER MEDICINE**
(International PhD course)

THE SELECTION PROCEDURE

The selection process for admission to Doctoral courses will be based on CV evaluation (skills, knowledge achievements and experience) and examination (interview). Selected candidates will be admitted to the doctorate and receive the scholarship on the basis of their ranking *.

* The amount of the scholarships is of € 16.243,00 gross per year. This amount can be increased up to 50% for PhD student who decide to spend a period of time abroad (maximum 12 months in the three-year PhD course).

DEADLINE: August 3rd 2022 at 4 p.m. CEST

If the application form is not completed by the indicated deadline (**August 3rd 2022 at 4 p.m. CEST**), it will not be considered.

HOW TO APPLY

Candidates must complete the **online** application form and submit it together with the documents listed below **by August 3rd 2022 at 4 p.m. CEST (only complete applications will be considered)**

Application form URL:

<https://www.uniupo.it/it/corsi/dottorati-di-ricerca/iscriversi-al-dottorato>

The filled application must be printed, signed in original and uploaded as a PDF with all documents at the end of the on-line procedure.

- **Signed Curriculum Vitae** (Please specify academic activities and research experiences)
- **Scientific publications**
- **Copy of your academic degrees, exams and score and transcripts;**
- **Copy of passport or ID**
- **Research Proposal**

(For the PHD program in Global health, humanitarian aid and disaster medicine: **Only with the research proposal template** available at: <https://crimedim.uniupo.it/new-phd/>)

CANDIDATES WITH ACADEMIC DEGREE AWARDED BY A FOREIGN UNIVERSITY

Candidates with academic degree awarded by a foreign University must submit:

- a) a copy of the University academic degree in their original language and its translation into Italian or English;
- b) a final University transcript, including denominations of the courses taken, the marks received and the date of the award of the degree and its translation into Italian **or English**;
- c) if available, the “dichiarazione di valore”, issued by the Italian Embassy or Consulate.

The original documents a), b) c) must be submitted by the beginning of the course

For any further information, please contact: mario.repole@uniupo.it

Examinations Timetable

PHD course	SCHOLARSHIP and positions without scholarship <u>for all candidates</u>
Chemistry & Biology	<p><u>Oral examination:</u></p> <p>September 9th, 2022 – at 9.00 a.m. CEST Dipartimento di Scienze e Innovazione Tecnologica (DISIT) – Via Teresa Michel 11 - ALESSANDRIA</p> <p>Via skype for candidates living outside Italy</p> <p>FIELDS OF RESEARCH:</p> <ol style="list-style-type: none">1. (Functional role of the Nampt enzyme in metastatic melanoma)2. (Study of multitrophic interactions involving beneficial soil microorganisms, plants, pathogenic insects and parasitoids for an agroecology-based approach to tomato cultivation)3. La tematica riguarda lo studio delle risposte biologiche all'esposizione a sostanze perfluoroalchiliche di nuova generazione in differenti modelli sperimentali in vivo ed in vitro attraverso un approccio ecologico ed ecotossicologico di tipo multi-disciplinare.4. (Eco-friendly porous materials for the separation and storage of hydrogen)5. (Optimization of porous and lamellar materials for environmental applications) <p>6. topic: Network reversibili</p> <p>7. The 2050 challenge for cement materials: innovation, sustainability and carbon neutrality. <i>Cement is a key material for the ecological transition both for the need to reduce the environmental impact due to its production, and for the role it can play with the development of clean technologies (eg use of hydrogen as fuel, carbon capture and storage, renewable energy infrastructure). The project will study and develop all the chemical knowledge needed to lead to successful choices in the sustainability of the production and use of this material, evaluating new formulations with all-round reduced energy and environmental needs, from raw materials to cooking and hydration processes, promoting the development of sustainable functional additives less impacting on critical raw materials, energy needs and environmental</i></p>

	<p><i>impact, favouring the recovery of waste, making comparisons of environmental scenarios with alternative energy sources, improving the performance of materials and manufactured products.</i></p> <p>8. Tematica: Ottimizzazione di processi di depolimerizzazione e produzione di combustibili liquidi/gassosi mediante experimental design e statistica multivariate</p> <p>9. Industrial materials and processes for innovative and sustainable cement binders</p> <p><i>The project concerns the study of cement materials (cement, concrete and their applications) related to the most current challenges of the sector, based on the reduction of environmental impact, durability, strength and durability in aggressive conditions, recycling and reuse or recovery of components from waste. In particular, it is intended to take into account the new issues that the use of renewable sources and strategies for carbon neutrality may present on materials (for example the recovery of construction demolition waste in the cement production process, the use of traditional and innovative CO₂ adsorbers as additions and effects on performance), on processes (i.e. energy conversion with hydrogen power, electrification of production in calcination, separation and capture of CO₂, use of autoclaves and activation by grinding in different conditions), on the sustainability of applications (for example, the development of eco-friendly additives as an alternative to critical materials, the suitability and reactivity of cement for permanent storage of CO₂) and possible viable solutions. The Ph.D. position is open with the collaboration of the company Buzzi Unicem, and a permanence of at least 6 months will be in the "Built" (Buzzi Unicem Innovation Labs and Technologies) research center - Vercelli while at least 6 months will be spent in industrial research centers (i.e. Willhelm Dyckerhoff Institute – Wiesbaden - Germany) and/or in foreign universities having research activities with the company</i></p>
<p>Drug innovation</p>	<p>September 15th, 2022 – at 9.30 a.m. CEST Dipartimento di Scienze del farmaco- Largo Donegani, 2 – NOVARA</p> <p>via Skype for candidates living outside Italy</p> <p>FIELDS OF RESEARCH:</p> <ul style="list-style-type: none"> - (Micro and nanostructured platforms for delivery and targeting of bioactive compounds) - (Role of the endogenous carbon monoxide (CO) gasotransmitter in cancer cell biology and cancer progression) - (Transcriptional regulators of protumoral myelopoiesis and therapeutic relevance) - (Glycolipids and lipopeptides: anti-adhesive compounds of microbial origin for the control of biofilm formation on

	<p>biomaterials, new application perspectives and sustainable production)</p> <ul style="list-style-type: none"> - (Non neuronal cells as major participants in early neuronal dysfunction) - (UPLC-HRMS identification and characterization of new specific and selective inhibitors on protein isoforms of pharmaceutical interest) - (Drug Regulation in Italy and Europe) - (Enzymatic and biotechnological processes for the production of new ingredients with high added value from edible seeds) - (Ecological transition in the industry of chelating agents). <p>-</p>
<p>Ecology of cultural and institutional systems <u>Only (Law)</u> Sustainable and solidary democracy: rights, duties, and institutions</p>	<p><u>Oral examination: September 16th, 2022 – at 10.00 a.m. CEST</u> Dipartimento di Giurisprudenza e Scienze Politiche, Economiche e Sociali – Via Cavour, 84 – ALESSANDRIA</p>
<p>Ecology of cultural and institutional systems <u>Only (Language)</u> Linguistic and literary traditions</p>	<p><u>Oral examination: September 19th, 2022 – at 09.00 a.m. CEST</u> Dipartimento di Studi Umanistici, Piazza S. Eusebio, 5- VERCELLI.</p>
<p>Ecology of cultural and institutional systems <u>Only (History)</u> Historical Sciences</p>	<p><u>Oral examination: September 13th, 2022 – at 10.00 a.m. CEST</u> Dipartimento di Studi Umanistici, Piazza S. Eusebio, 5 – VERCELLI</p>
<p>Food, health and longevity</p>	<p><u>Oral examination:</u></p> <p>Food, health and longevity - The PhD project (max 2000 words and 500 words for bibliography) should be developed on the basis of at least 2 key words specific for the PhD program (food, aging, microbiota, oncology, lifestyle).</p> <p>September 19th, 2022 – at 09.30 a.m. CEST Via Solaroli 17 – NOVARA</p> <p>Via skype or meet or zoom for candidates living outside Italy</p>
<p>Global health, humanitarian aid and disaster medicine</p>	<p><u>Oral examination: September 20th, 2022</u> (time will be indicated in the list of selected people)</p> <p>The list of applicants who successfully passed the first selection stage (min. 15/30 points) <u>will be published on September 7th</u> on the following websites</p>

<https://www.uniupo.it/it/corsi/dottorati-di-ricerca/iscriversi-al-dottorato>
 and
<https://crimedim.uniupo.it/new-phd/>

FIELDS OF RESEARCH

(research proposal template available at:
<https://crimedim.uniupo.it/new-phd/>)

TITLE	OBJECTIVES
Monitoring and Evaluation in Disaster Education: Development and Validation of a Comprehensive Package to Assess Disaster Training	The field of disaster management training has developed exponentially in the past years. Nevertheless, at the moment, there is no validated monitoring and evaluation (M&E) framework that can be systematically used to assess training programs in this field. This project aims to develop, pilot, and validate an M&E package that includes specific indicators for disaster-related training and educational programs. The M&E package is expected to be practical, scalable, and flexible, as well as able to encompass different educational methodologies employed in the disaster management field.
Utilization of Healthcare by Vulnerable Populations During Disasters: Exploring Trends and Devising Strategies for Reducing Health Inequalities	Considerable improvements are still needed to adequately protect vulnerable populations from the negative impact of disasters. This project aims to unravel different layers of inequality, by examining emergency department data and by complementing them with other health-related data collected by non-governmental organizations providing healthcare during disasters. Qualitative data deepening the understanding of the social determinants of health can be collected to enrich quantitative findings. Results will inform pragmatic strategies and interventions targeting health inequalities during disasters.
Impact of Ukrainian population forced migration on Multi Drug Resistant Tuberculosis epidemiology in Europe	The Ukrainian conflict has led to the massive displacement of the Ukrainian population in Europe. Ukraine is one of the countries with the highest rates of Multi Drug Resistant Tuberculosis (MDR-TB) reported, with 27% of all new diagnosed TB cases in 2019 being MDR. With more than 3 million refugees currently displaced, including TB patients unable to correctly adhere to the long, and not free of side effects, TB treatment, a major

		<p>increase in cases and in the occurrence of MDR-TB is expected. This project aims to evaluate the impact of the displacement of Ukrainian refugees towards Europe on the epidemiology of MDR-TB through the review of national and international database and the participation in the activities of screening that several countries are currently implementing. Moreover, we intend to investigate the role of digital adherence technology in the monitoring of therapy adherence in displaced populations.</p>
	<p>Hospital Safety Index: Measuring the Impact of the Index as a Tool for Enhancing Hospital Disaster Preparedness</p>	<p>The Hospital Safety Index (HSI), designed to assess the safety of hospitals, was applied several times in many countries to assess the level of preparedness of hospitals, but there is no literature on the impact of the tool in enhancing hospital disaster preparedness. With an experimental design, this project aims at evaluating the benefits behind the use of the HSI as a self-assessment tool, and to understand its impact on hospital disaster preparedness.</p>
	<p>Epidemiological, legal, clinical, and forensic aspects in the management of violence against migrants</p>	<p>In the literature, there is a lack of common guidelines regarding the legal and health (clinical and forensic) management of migrants. On top of that, discrimination, gender inequalities and exclusion from health, legal and social services emerge as negative health influences for migrants. Thus, one of the main goals of this project is the formulation of recommendations/guidelines to be adopted by the countries most affected by the phenomenon of migration.</p>
	<p>Cultural context and effectiveness of interventions in the aftermath of disasters</p>	<p>The proposal aims to investigate the relationships between the cultural context and the effectiveness of interventions in the aftermath of disasters. In light of recent emergencies (wars, pandemics, extreme events due to climate change) it would be interesting to understand whether the interventions in support of the affected populations have been more effective according to the population's ability to interact with helpers (and with each other), which in turn could depend on social and/or human capital at the local level. Moreover, learning from this interaction would be extremely important to be able to face similar situations in the future with greater autonomy.</p>

	<p>Development of multifunctional solids for the protection, detection, and decontamination from hazardous Chemical, Biological, Radiological and Nuclear (CBRN) agents during disasters and armed conflicts</p>	<p>The aim of this project is to develop innovative materials for the in situ detection of chemical and/or biological hazardous agents and their decontamination and abatement with environmentally-sustainable approaches in disasters and conflict settings. The materials should also find applications in personal protective equipment suits for professionals, first responders and humanitarian workers working in potentially CBRN contaminated environments.</p>
<p>Medical sciences and biotechnology</p>	<p><u>Oral examination: September 12th 2022 – at 9.00 a.m. CEST</u> Via Solaroli, 17 - NOVARA.</p> <p>The PhD project should be no longer than 5000 characters (footnotes and spaces included)</p> <p>via skype for candidates living outside Italy</p>	