







| Chemistry | | | |
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| Cycle 39° | | | |
| Director | Prof. Alessandro Massi (<u>alessandro.massi@unife.it</u>) Department of Chemical, Pharmaceutical and Agricultural Sciences | | |
| Duration 3 years | | | |
| International Character: | Joint PhD Programme in "Chemistry" with the University of Wroclaw - Department of Chemistry (Poland). | | |
| Curriculum | Chemistry Pharmaceutical Science and Food Chemistry | | |
| Research Topics | https://www.unife.it/studenti/dottorato/it/corsi/riforma/chemistry | | |
| Qualification required for admission | Italian degree known as "Laurea specialistica/magistrale" or a degree awarded prior to approval of Ministerial Decree D.M. n. 509 of 3 November 1999, updated with D.M. n. 270 of 22 October 2004, n. 270; Master's (second level) degree, or an equivalent foreign academic qualification awarded abroad | | |

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Evaluation of qualification: maximum score **60** points. Minimum score required to be admitted to the

interview 40/60

Interview: maximum score 20 points
Minimum final score required: 60/80

| Minimum final score required: 60/80 | | | |
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| During the interview, applicant's knowledge of the following language will be tested: | | | |
| | List of assessable credentials | | |
| Education | 1.Curriculum Vitae et Studiorum; 2.Full academic record (bachelor and master's degree) with certification or self-certification of taken courses and relative scores, plus final degree mark for graduate students. 3.Abstract of master's degree thesis (max. 2 pages) containing motivations, research methods, expected/obtained results, essential bibliography. For candidates graduating within 31/10/2023, the abstract must be signed by the thesis supervisor. N.B: all documents must be provided in Italian or in English. | Up to 40 points | |
| Research Project | The project (max 3 pages) - in English or in Italian - describes an original proposal for a research topic, structured as follows: state of the art, relevance of the topic, expected results. The mentioned project is not binding regarding the subsequent choice of the doctoral thesis, except for the positions with defined themes.* *If applying for scholarships with a specific theme, the coherence of the research project with the theme is a requirement for evaluation. Therefore, the research project | Up to 10 points | |









| | must necessarily relate to the topic of interest, or else the application will be excluded. If admitted to the doctoral program, the candidate will pursue research training and the thesis consistently with the reported theme. It is possible to apply for a maximum of 2 scholarships with defined themes by submitting 2 distinct research projects as a mandatory requirement. | |
|--------------------------------|--|-------------------|
| Statement of research interest | Short text (max 1 page) in English giving personal motivations to attend the PhD program and candidate research interests. | Up to 8 points |
| Other qualifications | 1.Scientific publications;2.Participation to meetings;3.Academic, professional qualifications, language certificates;4.Training periods | Up to 2 points |

Interview agenda/program

The program can be conducted in either Italian or English and will focus on the discussion of the research project presented, topics developed in the thesis, and themes specific to the doctoral curriculum.

Examination Timetable

Evaluation of qualifications and interview will take place within the 19th of September 2023. Evaluations' results, the beginning date for consulting the evaluations' results and the interview schedule will be available within the present call deadline at the following page:

https://www.unife.it/studenti/dottorato/it/concorsi/esiti-prove-concorso-di-dottorato-per-il-ciclo-39deg

| TOTAL AVAILABLE POSITIONS | 15 |
|---|----|
| With scholarship | 14 |
| Positions reserved for foreign scholarship holders and/or scholarship holders of specific international mobility programs | 1 |

| Regular positions with scholarship | | |
|------------------------------------|---------------------|--|
| N° | Funding institution | Research topic or area (if applicable) |









| 4 | Università degli Studi di Ferrara | |
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| 1 | Co-funded by Department of Chemical, Pharmaceutical and Agricultural Sciences and Università degli Studi di Ferrara | (Photo)electrochemical systems for CO2 conversion to high value-added products |
| 1 | Co-funded by Department of Chemical, Pharmaceutical and Agricultural Sciences and Università degli Studi di Ferrara | Polymers and nanostructured systems for drug delivery |
| 1 | Basell Poliolefine Italia Srl | Development and optimization of analytical pyrolysis for (micro)plastics recycling and characterization |

| Positions funded under Ministerial Decree No. 118/2023 CUP: F73C23000490006 | | |
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| N° | Area of interest | Research topic |
| 1 | PNRR PhD Programmes - M4C1 I. 4.1 | Development of state-of-the-art omics analytical methods for the determination of novel biomarkers in complex matrices |
| 1 | PNRR PhD Programmes - M4C1 I. 4.1 | Catalytic synthesis for the green production of innovative drugs |
| 1 | PNRR PhD Programmes - M4C1 I. 4.1 | Analytical characterization of volatile metabolites from biofluids for their use as health status indicators |
| 1 | PNRR PhD Programmes - M4C1 I. 4.1 | eDrogeno – Novel perspectives on zero/negative carbon footprint hydrogen (and efuels) production |

| | Positions funded under Ministerial Decree No. 117/2023 Innovative PhDs for Enterprises - M4C2 I. 3.3 CUP: F73C23000610006 | | |
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| N° | Funding company | Research topic | |
| 1 | Co-funded by Acme drugs S.r.l. | Development of safe and innovative pharmaceutical techniques for veterinary drugs production | |
| 1 | Co-funded by INCICO S.p.A. | Photoelectrochemical Solar Hydrogen | |
| 1 | Co-funded by ENEA | Photochemical processes for additive manufacturing of ceramic materials | |