

PHD PROGRAMME TABLE
Announcements of competition for admission to PhD Courses
42nd cycle, Academic Year 2026/2027

PhD Course: COMPUTER, LANGUAGE AND DATA SCIENCE FOR SOCIAL INNOVATION

Available positions: 17

Evaluation Methods: academic and research records and interview

Available positions:

Place n.	Description	Financial support	Specific research topic
1	Scholarship	University scholarship	-
2	Scholarship	University scholarship	-
3	Scholarship	University scholarship funded by Fondazione di Modena	-
4	Scholarship	University scholarship funded by Fondazione di Modena	-
5	Scholarship	Scholarship funded by Department of Physics, Informatics and Mathematics FISA 020143_26_FIP_BERTOGNA_FISA PROJECT – CUP E93C25001500001 – Prof. Bertogna	Cooperative and non-cooperative motion planning and control for edge-case autonomous driving
6	Scholarship	Scholarship funded by Department of Physics, Informatics and Mathematics FISA 020143_26_FIP_BERTOGNA_FISA PROJECT – CUP E93C25001500001 – Prof. Bertogna	Motion planning and control at and beyond the defined Operative Design Domain (ODD) in extreme autonomous driving
7	Scholarship	Scholarship funded by Department of Physics, Informatics and Mathematics FISA 020143_26_FIP_BERTOGNA_FISA PROJECT – CUP E93C25001500001 – Prof. Bertogna	Co-Scheduling of CPU, Memory, and Hardware Accelerators for Deterministic Real-Time Guarantees in Modern Computing Systems
8	Scholarship	Scholarship funded by Department of Physics, Informatics and Mathematics FISA 020143_26_FIP_BERTOGNA_FISA PROJECT – CUP E93C25001500001 – Prof. Bertogna	Low-Latency Integration of Intra-Vehicle and V2X Communication Protocols for Cooperative and Autonomous Driving
9	Scholarship	Scholarship funded by Department of Physics, Informatics and Mathematics FISA 020143_26_FIP_BERTOGNA_FISA PROJECT – CUP E93C25001500001 – Prof. Bertogna	Latency-Aware Orchestration of Multimodal Applications in Intelligent Living Labs for Smart Mobility

10	Scholarship	Scholarship funded by Department of Communication and Economics - Syntax out of Africa. Deep history through human grammars project - FIS2 – CUP E53C25001940001 – Prof.ssa Guardiano	Syntax out of Africa: Deep History through Human Grammars (DHisGram)
11	Scholarship	Scholarship funded by Department of Communication and Economics - Syntax out of Africa. Deep history through human grammars project - FIS2 – CUP E53C25001940001 – Prof.ssa Guardiano	Syntax out of Africa: Deep History through Human Grammars (DHisGram)
12	Scholarship	Scholarship funded by Department of Communication and Economics - Syntax out of Africa. Deep history through human grammars project - FIS2 – CUP E53C25001940001 – Prof.ssa Guardiano	Syntax out of Africa: Deep History through Human Grammars (DHisGram)
13	Scholarship	Scholarship funded by Department of Sciences and Method for Engineering	Multimodal Generative Digital Twins for Personalized Education: Heterogeneous Encoders and Adaptive Content Creation
14	Scholarship	Scholarship funded by HIPERT SRL	Machine-learning-based object detection, tracking, and motion forecasting for extreme autonomous driving
15	Position without scholarship	-	-
16	Position without scholarship	-	-
17	Position without scholarship	-	-

Areas of the PhD Programme: The PhD Programme in Computer, Language and Data Science for Social Innovation (CLDS4SI) is designed to provide a high-level educational path across various fields of computer science and human language, with particular emphasis on Data Science applications and comparative language analysis. Thanks to a faculty board with strong multidisciplinary expertise, an extensive network of national and international collaborations, long-standing partnerships with industrial stakeholders, and participation in numerous funded research projects, the PhD Programme aims to train highly qualified researchers and professionals by combining both solid technical and theoretical competencies and complementary soft skills.

The educational offering is structured to cover both theoretical and practical aspects related to (i) enabling computer technologies and (ii) formal and historical approaches to the study of human language, and (iii) cutting-edge and emerging application domains, enhancing the synergy between scientific and social disciplines. Key enabling technologies include

distributed and parallel systems (high-performance embedded systems and High-Performance Computing; Internet of Things and edge-fog-cloud computing paradigms; complex systems modeling); scalable Data science, data-centric AI and Cybersecurity.

In the field of language sciences, the PhD Programme aims to integrate theoretical linguistics and computer science, with particular emphasis on the comparative and formal analysis of the syntax of natural languages through the development of mathematical and computational models.

The application domains of interest are broad and deeply rooted in the digital transformation of both social (recommendation systems, sharing economy, social contagion and viral marketing, human-machine interaction, business ethics, natural language modeling, business analytics, digital preparedness) and technological sectors (Industry 4.0, autonomic computing for collective self-adaptive systems, autonomous driving systems and Connected Shared Mobility, clinical medicine).

Admission requirements: Italian second cycle master's degree (“Laurea Magistrale”, under D.M. 270/04 or “Laurea Specialistica”, under D.M. 509/99) or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) or Second cycle non-Italian Master's degree, equivalent to the Italian degrees mentioned above, in accordance with Article 2 of this Call.

Documents to be attached to the application:

- 1) In order to express interest in also competing for the scholarships linked to a specific research topic, candidates must complete and attach the file “[Declaration of priority interest to compete for scholarships linked to a specific research topic](#)”
- 2) Degree certificate (or self-certification for Italian degrees) and Transcript of Records including the full list of examinations with corresponding marks. Applicants with a non-Italian degree must attach their certificate (including the full list of examinations with corresponding marks) and a legalized translation or Diploma Supplement and, if available, the Declaration of Value (“Dichiarazione di Valore in loco”) issued by the competent Italian diplomatic-consular Representation, or the certificates issued by the CIMEA - ENIC-NARIC centre. If the degree certificate is not yet available or if the degree has not yet been obtained, the candidate must attach a description of the degree with a list of the examinations taken using [Annex A](#);
- 3) a Curriculum Vitae (CV) including their scientific and teaching activities in Italian or English using the form in [Annex B](#); the CV must include the university-level qualifications held;
- 4) a summary, in Italian or English, of the Master's thesis (or equivalent), consisting of a minimum of three and a maximum of six pages, and structured as follows: motivations behind the thesis, research methods, and results achieved;
- 5) a short text in English (Statement of Research Interest) using the form in [Annex C](#), in which candidates illustrate their motivation for attending the Course and the description of their specific research interests; the candidate must select a specific research topic from those available on the PhD Programme website (table (a) for open-topic scholarship and table (c) for advanced training apprenticeships on this page <https://www.clds.unimore.it/tesi-di-ricerca/>), optionally indicating a second choice in addition to the main one.

PLEASE NOTE: candidates applying for more than one specific research topic positions must submit a short text in English (Statement of Research Interest - [Annex C](#)) for each selected topic;

- 6) possible certificates of English competence (TOEFL, CAE/Proficiency or others)
- 7) certificate of completion of the GRE (Graduate Record Examination) test, if any;
- 8) maximum three letters of introduction/recommendation/reference; in the online application, applicants must enter all the personal details of the professor/researcher/expert who will be sending the letter of recommendation. Once the application has been submitted, the computer system will send an automatic e-mail to the contact person requesting the letter of recommendation. The deadline for uploading letters is June 30th 2026, 11.59 pm (CET); applicants can check on the application summary page whether the contact person has sent the cover letter/recommendation. Within the aforementioned deadline, applicants may send a reminder to the contact person who has not yet done so by selecting the 'reminder' item from the application summary page;
- 9) any other document considered useful for the candidate's assessment and/or scientific publications; candidates must provide a full list of all the documents and publications attached;
- 10) a copy of a valid identity document.

Evaluation Criteria:

For the evaluation, the Selection Committee has at its disposal a score up to a maximum of 120 points, divided as follows:

- **Academic and research records:** from 0 to 60 points
- Curriculum vitae of studies and congruity of the exams taken and the topics of the dissertation respect to the PhD topics: from 0 to 30 points;
- Publications, conference presentations, patents: from 0 to 10 points;
- Statement of Research Interest on the selected topic to assess his/her motivation and aptitude for research: from 0 to 10 points;
- Other qualifications (certification of proficiency in English, letters of introduction, study periods abroad, research grants or other collaborations with research groups, etc.): from 0 to 10 points.

Candidates will be admitted to the interview if the evaluation of their qualifications has reached a score of at least 35 points out of the 60 available. The list of the candidates admitted to the interview, and any variation in the selection procedure, will be published by July 15th, 2026 at the following University website address: <https://www.unimore.it/en/bando-phd-42>.

- **Interview:** from 0 to 60 points

The interview will focus on the description of a hypothetical research project of the candidate's choice among the theses and topics offered by the programme (<https://www.clds.unimore.it/tesi-di-ricerca/>). The assessment will focus on the project's scientific soundness, feasibility and congruity with the themes of the PhD programme.

Any publications by the candidate will also be discussed. The interview or part of the interview will be conducted in English.

The Committee will evaluate and determine eligibility only for candidates who have expressed their interest in applying with priority for the reserved position with a specific research topic based on the relevance of the candidate's profile to the chosen topic, as well as on the possession of a solid scientific background in line with that topic. In such cases, a eligibility judgment will also be assigned.

During the interview, the Commission may request a possible adjustment of the specific research topics selected by the candidate.

A pass is achieved where candidates are awarded a minimum score of 40/60.

Once the evaluation of the qualifications and the interview have been completed, the Commission will draw up a merit-based ranking list for each selection on the basis of the marks awarded to the candidates.

Candidates who obtain a minimum score of 80/120 are deemed eligible.

INTERVIEW SCHEDULE:

In-person interview: July 24th, 2026 at 9:00 a.m. Interviews could continue on July 27th, 2026 at 9:00 a.m., should there be a high number of candidates. The test will take place at the premises of the Department of Physical, Computer and Mathematical Sciences, Via Giuseppe Campi 213/A, Modena (the classroom will be communicated at the same time as the results of the selection based on qualifications).

Remote interview (allowed for each candidate, regardless of residence): July 24th, 2026, after the in-person interviews. The precise timetable will be established following the selection procedure on the basis of academic and research records. Interviews could continue on July 27th, 2026, after in-person interviews and with an agreed timetable as already specified, should there be a high number of candidates. The test will take place via Microsoft Teams.

The operational indications on how to conduct the interview via Microsoft Teams will be communicated at the time of publication of candidates admitted to the interview.