

REGISTRATION OPENING: July 1st, 2024 9:00 a.m. (CET)
DEADLINE FOR APPLICATIONS: July 26th, 2024 1:00 p.m. (CET)



Student Services Area
PhD Office

Rector's Decree No. 617/2024
Prot. No 169544 of 27/06/2024

THE RECTOR

HAVING CONSIDERED

- the Statute of the University of Modena and Reggio Emilia, enacted by Rector's Decree no. 3 of February 6th, 2012 and subsequent amendments and additions;
- the Italian Prime Minister's Decree of April 9th, 2001 on "*Uniform treatment regarding the right to higher education*", in accordance with art. 4 of Law no. 390 of December 2nd, 1991, and subsequent amendments and additions;
- art. 4 of Law no. 210 of July 3rd, 1998 on "*Guidelines for the recruitment of tenured university researchers and professors*", published in the Official Gazette of July 6th, 1998, General Series no. 155, and subsequent amendments and additions;
- Law no. 240 of December 30th, 2010;
- Ministerial Decree no. 226 of December 14th, 2021, on "*Regulation on the procedures for the accreditation of seats and PhD programmes and criteria for establishment of the PhD programmes by the accredited institutions*", published in the Official Gazette of December 29th, 2021, General Series, no. 308;
- Rector's Decree no. 481 of May 12th, 2022, implementing the provisions contained in Ministerial Decree no. 226 of December 14th, 2021, to enact the University Regulations governing PhD studies, and subsequent amendments and additions;
- the legislation regarding apprenticeship contract for advanced training;
- the legislation concerning the "Marie Curie" programmes, with which the European Union allocates funds for graduates selected in the programmes themselves intending to take part in PhD programmes;
- the resolution of the Academic Senate in its session of May 24th, 2017 and the Executive Board in its session of May 26th, 2017 approving the guidelines for the use of telematic methods for the selection procedures for admission to PhD programmes;
- Ministerial Decree no. 301 of March 22nd, 2022 on "*Guidelines for the accreditation of PhD programmes in accordance with art. 4, paragraph 3, of the Regulation as per Ministerial Decree no. 226 of December 14th, 2021*";
- the Note of the Ministry of University and Research of March 2nd, 2024 which informed that the rules of Ministerial Decree no. 301 of March 22nd, 2021 also apply to the accreditation of courses for the XL cycle;
- that the Department of Medical and Surgical Sciences, and Department of Education and Humanities, of the University were among the 180 Departments of Excellence,

- recipients of Ministry of Education, University and Research as part of the initiative concerning the Departments of Excellence 2023-2027;
- the resolution of the Emilia-Romagna Regional Council No. 1401 of August 7th, 2023, regarding "Approval of training projects for research on sustainability and resilience of society, communities, and territories submitted under the Notice approved by its own resolution No. 578/2023. PR FSE+ 2021/2027";
 - the resolution of the Emilia-Romagna Regional Council No. 225 of February 12th, 2024, regarding "Approval of training projects for research for the 40th and 41st cycles. Territory: technological, cultural, economic, and social transition towards sustainability submitted under the Notice approved by DGR No. 2111/2023. PR FSE+ 2021/2027. Priority 2. Education and training – Specific objective e)"
 - Ministerial Decree no. 629 of April 24th, 2024 which set out for the academic year 2024/2025 the attribution on PNRR, Mission 4, Component 1 "*Strengthening the offer of educational services: from Nursery to University*" – Investment 3.4 "*Didactics and advanced university skills*" and Investment 4.1 "*Extension of the number of the PhD programmes and innovative PhD Programmes for the Public Administration and the Cultural Heritage*" of three-years PhD scholarships for the attendance of PhD courses;
 - Ministerial Decree no. 630 of April 24th, 2024 which set out for the academic year 2024/2025 the attribution on PNRR, Mission 4, Component 2 "*From the research to the enterprise*" - Investment 3.3 "*Introduction of innovative PhD Programmes that meet the innovation needs of the enterprises and promote the recruitment of Researchers by the enterprises*" of three-years PhD scholarships for the attendance of PhD courses;
 - the resolutions of the Senate of May 24th, 2024 and of the Executive Boards of May 24th, 2024 which approved the planning and the establishment of PhD programmes, with administrative headquarters at the University of Modena and Reggio Emilia;
 - the resolutions of the Senate of June 11th, 2024 and of the Executive Boards of June 21st, 2024 which determined the contribution amounts for access and attendance to PhD courses for the academic year 2024/25;
 - EU Regulation 2021/241 of the European Parliament and of the Council of February 12th, 2021 establishing the Recovery and Resilience Facility (RRF Regulation) with the specific objective of providing financial support to Member States in order to achieve the milestones and targets for reforms and investments set out in their Recovery and Resilience Plans;
 - the ECOFIN Decision of July 13th, 2021, whereby the Council positively assessed Italy's Recovery and Resilience Plan, and notified to Italy by the General Secretariat of the Council by note LT161/21, dated July 14th, 2021;
 - EU Regulation 2018/1046 of July 18th, 2018 on the financial rules applicable to the general budget of the Union, amending EU Regulations No. 1296/2013, No. 1301/2013, No. 1303/2013, No. 1304/2013, No. 1309/2013, No. 1316/2013, No. 223/2014, No. 283/2014 and Decision No. 541/2014/EU and repealing Regulation (EU, Euratom) No. 966/2012;
 - Mission 4 "Education and Research" - Component 2 "From research to enterprise" - Investment Line 1.3, "Fund for the realisation of an integrated system of research and innovation infrastructures" – NextGenerationEU;
 - Article 17 EU Regulation 2020/852, which defines environmental objectives, including the principle of "Do no significant harm" (DNSH), and the related European Commission Communication C (2021) 1054 final of February 12th, 2021, on "Technical guidance on the application of the principle of "Do no significant harm" under the Regulation on the Recovery and Resilience Facility";
 - the National Recovery and Resilience Plan, officially submitted to the European Commission on April 30th, 2021 pursuant to Article 18 of EU Regulation No. 2021/241

- and positively assessed by the ECOFIN Council Decision of July 13th, 2021 and notified to Italy by the General Secretariat of the Council by note LT161/21, dated July 14th, 2021;
- the transversal principles set out in the NRRP, such as, inter alia, the principle of contribution to the climate and digital objective (so-called tagging), the principle of gender equality and the obligation to protect and enhance young people;
 - Investment Line 1.3 of the M4C2 – Creation of “Partnerships extended to universities, research centres, companies for the financing of basic research projects”, which aims to strengthen research chains at national level and promote their participation in strategic European and global value chains;
 - the Directorial Decree no. 341 of March 15th, 2022, issuing a "Public Notice for the submission of Proposals for the creation of "Partnerships extended to universities, research centres, and companies for the funding of basic research projects" - within the framework of the National Recovery and Resilience Plan, Mission 4 "Education and Research" - Component 2 "From Research to Enterprise" - Investment 1.3, funded by the European Union - NextGenerationEU";
 - that, in response to the Cascade Call for State Universities and Public Research Institutions supervised by the Ministry of University and Research (MUR), issued by the Polytechnic University of Turin with decree no. 2275/2023 dated October 26th, 2023 in its capacity as Spoke 4 “Programmable Networks for Future Services and Media” within the framework of the Extended Partnership named “RESearch and innovation on future Telecommunications systems and networks, to make Italy more smART” (RESTART) (CUP POLITICO: E13C22001870001 – project code PE00000001) funded by PNRR MUR funds – M4C2 – Investment 1.3. “creation of Extended Partnerships to universities, research centers, companies for the funding of basic research projects” - funded by the European Union – NextGenerationEU (grant decree no. 1549 dated October 11th, 2022), the University of Modena and Reggio Emilia submitted the proposal “vulnerAble road users’ protection: turning the sustainaBLE mobility dream into RealiTY (ALERT)” (protection of vulnerAble road users: from the dream of sustainaBLE mobility to Reality), which was approved for funding with the decree of the Director General of the Polytechnic University of Turin no. 717/2024 dated March 4th, 2024 (CUP UNIMORE: C99J24000090004);
 - the Agreement between the Spoke Polytechnic University of Turin and the Beneficiary University of Modena and Reggio Emilia (Rep. no. 111/2024 - Prot. no. 86641 dated March 15th, 2024), signed for the implementation of the ALERT initiative (CUP UNIMORE: C99J24000090004) within the Program “RESearch and innovation on future Telecommunications systems and networks, to make Italy more smART” (Project Code PE00000001), Mission 4 “Education and Research”, Component 2 “From Research to Business”, Investment 1.3 - Call “Extended Partnerships to universities, research centers, companies for the funding of basic research projects” - funded by the European Union – NextGenerationEU - Cascade Call for State Universities and Public Research Institutions supervised by MUR using funds CUP E13C22001870001 Spoke 4 POLITICO;
 - the National Research Program 2021-2027, approved by CIPE Resolution no. 74/2020 (Official Gazette General Series no. 18 dated January 23rd, 2021);
 - the manual on “Management and Control System of the Ministry of University and Research, Central Administration responsible for PNRR Italy interventions – version 1.0” provided by the Mission Unit of general managerial level for the implementation of the National Recovery and Resilience Plan (PNRR) interventions, at the General Secretariat of the Ministry of University and Research, which provides a detailed table listing the allocations from the Ministry of Economy and Finance Decrees dated August 6th, 2021, and November 23rd, 2021, of the so-called “existing projects”, all related to intervention

- M4C2-1.1., including PRIN resources already allocated pursuant to Article 238, paragraph 4, of Decree-Law no. 34 dated May 19th, 2020;
- the Decree no. 104 dated February 2nd, 2022, PRIN 2022 Call, aimed at promoting the national research system, strengthening interactions between universities and research institutions, and encouraging Italian participation in initiatives related to the European Union's Framework Program for Research and Innovation;
 - the "Guidelines for information and communication actions by implementing bodies" of the Ministry of University and Research related to PNRR interventions under MUR's responsibility, issued on July 5th, 2023;
 - the Explanatory Circular of the Ministry of University and Research dated May 22nd, 2023, concerning "Reporting methods for implementing Decree-Law no. 13 dated February 24th, 2023, converted with amendments by Law no. 41 dated April 21st, 2023";
 - the Decree no. 1409 dated September 14th, 2022, by which the PRIN 2022 PNRR Call was issued (registered with the Court of Auditors on October 5th, 2022, no. 125);
 - the relevant Grant Terms and Conditions;
 - the determinations of the competent University bodies in this regard;
 - the activation and renewal proposals of the PhD programmes submitted by this University to the Ministry of Education, University and Research;

DEEMED it necessary to proceed with publication of the call for applications for the abovementioned courses pending the assessment of the Ministry of Education, University and Research on the activation of these courses, in order to respect the timetable envisaged by the Ministry of Education, University and Research for the publication of the rankings;

D E C R E E S

ARTICLE 1 – Institution

The University of Modena and Reggio Emilia hereby announces selection procedures for admission to the PhD programmes with triennial term as from November 1st, 2024 listed in art. 17, which follows, for the XL cycle, Academic Year 2024/2025.

The actual activation of courses and registration are subject to the approval by the Ministry of University and Research upon positive opinion expressed by the National Agency for the Evaluation of the University System and Research (ANVUR), as indicated in the Ministerial Decree no. 301 of March 22nd, 2022, "Guidelines for the accreditation of PhD programmes" in accordance with art. 4, paragraph 3, of the Regulation as per Ministerial Decree no. 226 of December 14th, 2021".

PhD scholarships awarded by the founding of MD no. 629/2024 and MD no. 630/2024 are subject to the verification of eligibility and evaluation of the Ministry of University and Research.

Additional scholarships and positions may become available, even in the event that funding is provided by public or private bodies subsequent to the publication of this call for applications, but not after the publication date of the final rankings.

The number of scholarships may also be increased should ministerial funding ("*Piano Giovani*") become available throughout the project, and may be assigned to qualified ranked candidates without a scholarship or other types of incompatible funding, who have correctly registered by the deadline and in accordance with the regulations of this competition.

Those candidates who are awarded scholarships will be required to carry out the research projects assigned to them by the competent Board of the PhD Programme, with the exception of any changes as set by the authority.

The recipients of PhD scholarships awarded by the founding of MD no. 629/2024 and MD no. 630/2024, which provide the development of a specific research theme, are bound to conduct this activity.

The research activities financed by MD 629/2024 “PNRR” provide for study and research periods abroad of a minimum of six to a maximum of twelve, or eighteen months in the case of joint PhD, which may also be non-continuous.

The research activities financed by MD 629/2024 “Public Administration” provide for study and research periods abroad of a minimum of six to a maximum of twelve, or eighteen months in the case of joint PhD, and a period in Public Administrations, enterprises or research centres of a minimum of six to a maximum of twelve months, which may also be non-continuous.

The research activities financed by MD 629/2024 “Cultural Heritage” provide for study and research periods abroad of a minimum of six to a maximum of twelve, or eighteen months in the case of joint PhD, and a period in enterprises, research centres or Public Administrations, including museums, institutes, and educational institutions of the Ministry of Culture (e.g., Fondazione Scuola dei Beni e delle Attività Culturali and other Advanced Training Schools), archives, and libraries, of a minimum of six to a maximum of twelve months, which may also be non-continuous.

The research activities financed by MD 629/2024 “Digital and environmental transitions” provide for study and research periods abroad of a minimum of six to a maximum of twelve, or eighteen months in the case of joint PhD, and a period in enterprises or research centres of a minimum of six to a maximum of twelve months, which may also be non-continuous.

The research activities financed by MD 630/2024 provide for study and research periods abroad of a minimum of six to a maximum of twelve, or eighteen months in the case of joint PhD, and a period in enterprises of a minimum of six to a maximum of eighteen months, which may also be non-continuous.

Those candidates successfully ranked in the list of admitted students who, at the time of their enrolment on the Programme (as indicated in art. 7), express an interest in being considered for an apprenticeship contract for advanced training, may later be selected by the University, to firms, for such a contract, in accordance with Legislative Decree no. 81/2015 and Interministerial Decree 12/10/2015. Selection will be made on the basis of candidates’ specific qualifications.

A candidate holding an apprenticeship contract or Industrial PhD programme may not at the same time hold a university scholarship or other types of awarded funding, this includes scholarships awarded by foreign Countries or those awarded within specific mobility programmes.

Apprenticeship contracts can be concluded only by candidates who have not yet reached their thirtieth year of age at the time of signing the contract.

This call is equivalent to notification to all intents and purposes. Any changes, updates or additions to the content of this call will be announced, **exclusively**, on the following website: <https://www.unimore.it/bandi/StuLau-Sdott.html> and on the online University notice board (<https://wss.unimore.it/public/albo/>).

ARTICLE 2 - Admission requirements

The competition is open to any candidate, regardless of age or nationality, who as of **October 31st, 2024**, holds an Italian degree obtained prior to D.M. 509/99 or an Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under

D.M. 207/04), or an equivalent academic qualification from a foreign University, that has to be validated by the Selection Committee, following the legislation in force both in Italy and in the Country where the qualification was issued and within the international treaties or agreements on the recognition of international qualifications, in the case where degrees in specific subjects are required for admittance to the Programme.

Candidates who have a foreign academic qualification must submit any relevant documents useful for verifying equivalency: their degree certificate with a list of exams taken, along with an Italian or English translation, an authentication, and:

- for degrees obtained in European Union countries: Diploma supplement or certificate of comparability and verification issued by the CINEA, as an ENIC_NARIC center
- for degrees obtained in countries outside the European Union: "declaration of validity" (dichiarazione di valore in loco") issued by the competent Italian consular or diplomatic representative for the country, or certificate of comparability and verification issued by the CINEA, as an ENIC_NARIC center.

If not yet available, candidates must fill in the description of the degree with a list of exams passed, by using Annex A2, attaching the documents to the application for admission using the online procedure described in Art. 3.

Candidates who complete their degree after the deadline for this call must submit a Degree certificate or the form in Annex A2 (in case of degree awarded by a foreign institution) or a self-certification to prove that the degree has been conferred (using the form in Annex A1, in case of degree awarded by an Italian University):

- in case of degree completed before enrolment: by enclosing the form with the enrolment application form,
- in case of degree not yet completed when enrolling in the PhD Programme: by submitting the form to the PhD Office, by and no later than, October 31st, 2024, via e-mail to the address segr.dottorati@unimore.it .

For the purposes of admission to the doctorate course, in any case, Italian nationals and foreigners holding a foreign academic qualification must submit to the PhD Office, by and no later than, December 31st, 2024, via e-mail to the address segr.dottorati@unimore.it, their degree certificate with a list of exams taken, along with an Italian or English translation, an authentication, and

- for degrees obtained in European Union countries: Diploma supplement or certificate of comparability and verification issued by the CINEA, as an ENIC_NARIC center;
- for degrees obtained in countries outside the European Union: "declaration of validity" (dichiarazione di valore in loco") issued by the competent Italian consular or diplomatic representative for the country, or certificate of comparability and verification issued by the CINEA, as a ENIC_NARIC center.

The University reserves the right to exclude from the competition any candidate who has not submitted the required documents by the deadline cited above without a justified reason.

Candidates who, at the date of the deadline of this call, are in possession of documentation proving the possession of the scholarship or the start of the procedure to obtain it, may take part in the selection process for scholarship holders of foreign States.

The competent offices will be checked the information sent by candidates in order to verify correctness.

All candidates are admitted to the selection conditional upon verification of the aforementioned requirements.

The University Administration reserves the right to exclude, at any time, candidates who have not the requirements for admission.

ARTICLE 3 – Admission applications

Applications for admission to competitions and any required enclosures must be submitted following the online procedure by the final deadline of **July 26th 2024, at 1:00 p.m. (CET)**, when the competition closes. Candidates failing to comply will not be considered.

Candidates interested in a PhD Programme must submit an admission application, with a request to take part in the relevant selection procedure.

Candidates interested in more than one PhD Programme must submit a separate admission application for each individual Programme.

Candidates interested in applying for more than one selection procedure must submit the application forms for each of the selections in which they want to take part. This applies in case of PhD Programmes where there are more than one selection procedures (as indicated in art. 17 in the paragraphs related to each Programme), because of the different types of available reserved places.

Admission applications and any required enclosures (academic qualifications, documents and publications considered useful for competition purposes) must be submitted to this Administration before the final deadline for the competition, using the following method only:

- **by Internet**, on the University website <https://www.esse3.unimore.it/Home.do> (new users must register by selecting “Menu”, top right, and then “Registration”; those who have already registered should select “Menu”, and then “Login” with the credentials received following registration or with their SPID (Public Digital Identity System) credentials and proceed with the following steps: insert username and password, and then, select “Menu” – “Student Area/Registered Area” - “Admission” – “Admission Exams” – “Ph. D.”).

All academic qualifications, documents and publications considered useful for the application procedure must be attached in .pdf or .rtf file form with a maximum size of 20 MB. Attachments larger than 20 MB must be divided into smaller files.

Each application must refer to a single selection procedure and will require a payment of € 25.00, not refundable, to cover administrative costs. Therefore, candidates wishing to apply to more than one selection procedure must submit a separate application and the € 25.00 fee for each selection procedure.

The pay slip will only be available at the end of the procedure with the final data saving.

Payment must be made using the following method:

Access Esse3, by connecting to the University website at <https://www.esse3.unimore.it/Home.do> with your credentials, and under the menu item “Taxes” proceed with the payment through the PAGO PA circuit that allows to pay online (by choosing your Payment Service Provider – PSP) or alternatively to print the payment notice to be delivered personally to Banks and ATMS, SISAL, Lottomatica and ITB stores. From your personal Esse3 page, under the menu item “Taxes”, you can print the payment receipt. With the PagoPa circuit, the payment acquisition times in Esse3 are normally comparable to those of the credit card.

The payment of € 25.00 must be made by July 26th, 2024.

Candidates must keep the payment receipt for € 25.00. First year candidates should instead enclose it with the enrolment application form before the deadline and in accordance with the terms and conditions in art. 7.

The application for admission will be considered to be correctly filed only by saving the data (“Save the data”) after the “Explicit confirmation of the validity of the application” given by the candidate at the end of the online procedure mentioned above.

Before the data saving (“Save the data”) that follows the “Explicit confirmation of the validity of the application”, and prior to the deadline for the competition, candidates may add, change or remove attached academic qualifications, documents and publications using the abovementioned website. The procedure is as follows: select “Menu”, “Login”, insert username, password, and then, in the Student area, select “Admission”).

After the data saving (“Save the data”) that follows the “Explicit confirmation of the validity of the application”, in the case of errors or incomplete insertion of attachments using the online procedure, candidates can send an email to the PhD Office (segr.dottorati@unimore.it) within the peremptory deadline of the call deadline (July 26th, 2024, 1.00 pm CET) for requesting the reopening of the online procedure by attaching a scanned copy of an identity document. The candidate must make the corrections / additions he deems appropriate within the same deadline (July 26th, 2024, 1.00 pm CET). In this case, please note that the candidate will have to save the "Save data" data again following the explicit confirmation of the application.

At the end of the admission procedure a reminder summary of the application form is generated for each candidate. This document must be kept by its candidate and should not be transmitted to anyone else.

It should be noted that if the admission procedure for the selection on Esse3 is still open at the strict deadline of the call for applications (July 26th, 2024, 1.00 pm CET), the application cannot be closed in any way.

At the end of the admission procedure, a summary reminder of the candidate's admission application is generated. This document must be kept by the candidate and should not be sent to anyone.

No other methods of submitting the application and the related attachments are permitted.

The University Administration reserves the right to exclude, at any time, candidates who have not paid the fee of € 25.00 referred to in this Article.

The University Administration does not respond in the event that the candidate incurs errors in the choice of selection of his interest. In this case the candidate must produce new instance and provide for the payment of the contribution provided by the deadlines of this call.

Any communications to candidates concerning this call are made by e-mail. For this purpose, is used e-mail address indicated by the candidate during the registration procedure referred in Article. 3. Candidates, whose email addresses are already present in the registry, are asked to want to update data if necessary.

In the event of any technical and/or operating difficulties, please write to the following e-mail address: webhelp@unimore.it.

Admission applications, submitted in accordance with the indications given above, will be considered valid only if they reach this Administration before the final deadline.

Therefore, any applications arriving after the deadline, or not submitted in accordance with above requirements, will not be considered.

As part of the procedural information in making the application, the candidate takes personal responsibility for declarations in relation to:

- a) name and surname;
- b) place and date of birth;
- c) residential address, telephone/cell number, elected domicile for the purposes of this competition, and e-mail address;
- d) tax identification number ("codice fiscale"- if candidates have one. Candidates who do not have a tax identification number need only to confirm the one that will automatically be assigned to them by the system);
- e) citizenship;
- f) possession of a secondary school qualification;
- g) possession of an Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) or Italian second cycle master's degree (laurea specialistica or laurea magistrale), or an equivalent academic qualification issued by a foreign University;
- h) the exact title of the PhD Programme chosen by the candidate;
- i) knowledge of a second foreign language (either French, German or Spanish), in addition to English;
- j) curriculum vitae;
- k) academic qualifications and any other documents;
- l) publications;
- m) in the case of candidates with disabilities, in accordance with Law no. 104 of February 5, 1992 or with diagnosis of SLD, in accordance with Law no.170 of October 8th, 2010, any accommodations required for taking the examinations. The same request for assistive devices to take the examinations must be sent by mail to: disabilita@unimore.it and segr.dottorati@unimore.it . (subsequently the candidate will be contacted by the *Welcome Office for Students with Disability* to agree on the methods of transmission of the relative medical certification).

By submitting the application, the candidate agrees:

- 1) to attend the PhD programme on a full-time basis, in accordance with the conditions established by the Teaching Committee;
- 2) to notify the University immediately of any changes in residence or address;
- 3) in the case of Italian nationals or foreign citizens holding a foreign degree, to send the degree certificate, with a list of exams taken, along with an Italian or English translation, an authentication and "declaration of validity" issued by a competent Italian diplomatic-consular representative for the country, or Diploma supplement or certificate of comparability and verification issued by the Cimea as a ENIC_NARIC center, in accordance with the regulations governing the admission of foreign students to Italian university degree courses, by the final deadline of December 31st, 2024;
- 4) in the case of candidates who complete their degree after the deadline for this call, but before October 31st, 2024, to send their degree certificate or facsimile attachment A2 (if awarded by a foreign university) or a self-certification to prove that the degree has been conferred (if awarded by an Italian university, please use form in Annex A1), by the final deadline and in accordance with the conditions indicated in art. 2 of this competition. Candidates failing to comply will not be considered.

The Administration may decide, at any time, with its reasoned decision, the exclusion from the selection.

Admission applications and or related attachments will not be considered for any of the following reasons: submission or receipt of applications after the deadline or non-compliance with the procedural requirements of the competition.

The Administration cannot be held responsible for any loss of correspondence due to the following situations: incorrect contact details, failure or delay in notification of a change in address, technical errors, negligence of third parties, or a *force majeure*. Furthermore, the Administration shall assume no responsibility for attachments not received as a result of third-party involvement, faulty attachment of documents by the candidate, or any type of network failure.

ACADEMIC QUALIFICATION CERTIFICATES, DOCUMENTS AND PUBLICATIONS:

Candidates with any academic qualification certificates, documents or publications considered useful for the purposes of the competition procedures must attach the following certificates, documents and publications, except in the cases stipulated in Art. 17, for each Programme:

1) (for candidates holding an Italian degree) a self-certification to prove to meet the requirements (using the form in Annex A1) in accordance with articles 46 and 47 of the Presidential Decree 445/2000;

2) (for candidates holding a foreign degree) degree certificate with a list of exams taken, along with an Italian translation, an authentication, and a “declaration of validity” “dichiarazione di valore in loco” issued by the competent Italian consular or diplomatic representative for the country, or Diploma supplement or certificate of comparability and verification issued by the Cimea as a ENIC_NARIC center. If not yet available, candidates have to attach the description of the degree with a list of exams taken together with a statement of truth of the certificates attached, by means of a self-certification in accordance with Articles 46 and 47 of the Presidential Decree 445/2000 using Annex A2;

3) scanned copy of a valid identity card or passport;

4) curriculum of research and teaching activities;

5) academic qualification certificates and documents considered useful for the purposes of evaluation with corresponding list;

6) letter/letters of presentation/reference/recommendation (maximum 3); in the online admission application candidates must enter name, surname, e-mail address, status, Institution/Organization of affiliation of the academic/researcher/expert for the letter of presentation/reference/recommendation. After the data saving (“Save the data”) that follows the “Explicit confirmation of the validity of the application” by candidates, the computer system will send an e-mail to the referent to request to insert a presentation/reference/recommendation letter and containing the instructions for the upload. The deadline for the referent to upload the letter is July 26th, 2024, at 11:59 pm (CET); the candidates can check on the summary page of the application form (can be reached by accessing the University's website at <https://www.esse3.unimore.it/Home.do> and making the "Login") if the presentation/reference/recommendation letter was sent by the referent. Within the abovementioned deadline, the candidates can send to the referent who has not yet completed a reminder by selecting the item "reminder" from the summary page of the application form.

7) academic publications with corresponding list;

8) document in which the candidate expresses his or her interest in one of the curricula within the PhD programme, provided they are indicated in Art. 17 in the sections dedicated to each Programme. This is purely for information purposes and therefore not binding;

9) document in which the candidate expresses his or her interest in applying primarily for one or more reserved places, where provided and mentioned in art. 17 in the sections related to each PhD Programme (by completing Annex D1, D2 or D3). Should the programmes have different types of reserved places the candidate may express interest for a single type of reservation.

Under article 15 of Law no. 183 of November 12th, 2011, certificates regarding personal qualities, status and facts issued by the public administration can be only used for private purposes. Self-certification, under articles 46 and 47 of Presidential Decree 445/2000, can replace attested declarations for public administration or public services purposes.

Publications in languages other than Italian, English, French, German or Spanish, or which do not include a summary in one of the abovementioned languages, must be produced in the original language and translated into Italian.

Certificates issued by the competent authorities of the foreign candidate's country of citizenship must comply with the provisions in force in the same country. Certificates in a language other than Italian, English, French, German or Spanish, must also be translated and authenticated by the competent Italian diplomatic or consular authorities.

An Italian translation must be attached to all documents written in a language other than Italian, English, French, German or Spanish and must be certified as conforming to the foreign text by a competent Italian diplomatic authority or an official translator.

ARTICLE 4 – Selection Committee

Each committee responsible for the evaluation of candidates will be appointed by a Rector's decree and composed of three permanent members and one or more substitute members. They will be selected from the University's tenured professors and researchers. A maximum of two Italian and/or foreign experts may be chosen from public and private research bodies or institutions. An administrative staff clerk may be called to verbalize.

ARTICLE 5 – Admission procedures

The selection procedure and schedule of examinations, where applicable, are indicated in art.17, in the sections relating to each PhD Programme.

In the event of selection procedures requiring an interview and written test, the interview procedures are indicated in art.17, in the sections relating to each PhD Programme

Where specified in the selection procedure, the required interview will include a language proficiency test in English and in another optional foreign language indicated by the candidate at the time of application.

In the event of selection procedures requiring an interview, candidates may choose whether to take the exam in presence or on-line at the link that will be provided by the Selection Committee.

The programs used for the interview are indicated in the section relating to each PhD programme in art.17. The operational indications will be illustrated by the Selection Committee by email sent to the candidates at the end of the evaluation of academic and research records. Candidates may take the interview in presence or online on-line at the link that will be provided by the Selection Committee.

In the event of selection procedures requiring examinations or academic and research records and exams, candidates will be admitted subject to presentation of a valid identification document.

ARTICLE 6 – Ranking

At the end of the selection process, each committee will publish a final merit-based list ranking the candidates.

The final merit list will be approved by a Rector's Decree, once all documentation has been declared valid.

Candidates will be admitted to Programmes according to their positioning on the merit list until all available places have been allocated for each PhD Programme. In case of a tie, preference is given to the younger candidate.

The final rankings of candidates will be announced publicly exclusively by:

- publication on the University website at <https://www.bandì.unimore.it/StuLau-GradSdott.html>
- publication on the online University notice board (<https://wss.unimore.it/public/albo/>).

Should a candidate qualify for a place in more than one ranking, he/she may register for only one PhD Programme.

The concurrent enrolment in several study programmes is ruled by Law no. 33 of April 12th, 2023 and by MD 930/2023.

The joint attendance of the PhD programme and a medical specialisation school is allowed in compliance with the following general criteria:

a) compatibility, also in consideration of the distance between the seats, of the activities and commitment provided by the graduate school and the PhD programme, certified by the board of the medical specialisation school and by the PhD Teaching Body;

b) incompatibility between the PhD scholarship and fees, however denominated, received in relation to the activities of the specialisation school.

In cases of joint attendance referred to in this article, the request for reduction of doctoral activities is accepted by the faculty of the doctoral programme, after positive evaluation of the consistency of the research activities already carried out in the medical specialisation course, with the doctoral project. For the purposes of accepting the application referred to in this paragraph, the opinion of compatibility, expressed by the board of the specialisation school, of the doctoral project with the educational purposes of the graduate school itself is also required. If the application referred to in this paragraph is accepted, the PhD programme has a duration of no less than two years.

ARTICLE 7 – Enrolment

Within the mandatory five-day time limit, starting from the day after the publication of the final rankings on the online University notice board as mentioned above in Art. 6, those candidates qualifying for a place on the merit list must enrol in the first year of the PhD Programme, using the method mentioned below (Failure to comply will result in the loss of right to admission):

connect to the University website <https://www.esse3.unimore.it/Home.do> (new users must register by selecting "Menu", top right, and then "Registration"; those who have already registered should select "Menu", and then "Login" with the credentials received following registration or with their SPID (Public Digital Identity System) credentials, follow the

instructions: “Student Area” - “Enrolment” – “Enrolment according to ranking”; if an applicant has forgotten his/her username and password, assistance is available via email at webhelp@unimore.it).

Candidates will be asked to enclose the digital copy of the following documents:

- a) digital passport photo: a colour passport photo, showing a frontal view of your face, with a neutral or uniform background (in .jpeg, .jpg, .png, .bmp format);
- b) scanned copy an identity document, duly signed;
- c) scanned copy of the tax identification card;
- d) scanned copy of the receipt for the payment of € 25.00 required for participation in the competition, in accordance with art. 3;
- e) self-certification to prove the possession of a university degree (using the form in Annex A1 for Italian degrees or the form in Annex A2 for foreign degrees), in case of degree already awarded;
- f) in case of applicants with scholarship, Annex G “Declaration accompanying application for enrolment on a PhD Programme” - part 1 and part 2;
- g) in case of applicants without scholarship, Annex H “Declaration accompanying application for enrolment on a PhD Programme”;
- h) declaration of interest in a possible apprenticeship contract for advanced training to be drawn up in accordance with Legislative Decree no. 81/2015 and Interministerial Decree 12/10/2015 in conjunction with any interested firms (using Annex E). This is purely for information purposes and is, therefore, not binding;
- i) (in case of students of specialization schools in the medical area) a written permission issued by the Specialization School Committee, following previous art. 6.
- j) (in case of students awarded a position reserved or of selection process for scholarship holders of foreign States) copy of the document proving the possession of the scholarship. In case the candidate is not yet in possession of it, the aforementioned documentation must be submitted by email to segr.dottorati@unimore.it not later than October 31st, 2024.

Please note that the mere completion of the online form is NOT sufficient for enrolment. PhD students must pay the single tuition payment by the aforementioned deadline date (i.e. within seven days of the publication of the rankings). Failure to comply within this deadline will result in exclusion from the PhD program.

Payment must be made at the end of the enrolment procedure using one of the following methods:

Access Esse3, by connecting to the University website at <https://www.esse3.unimore.it/Home.do> with your credentials, and under the menu item "Taxes" proceed with the payment through the PAGO PA circuit that allows to pay online (by choosing your Payment Service Provider – PSP) or alternatively to print the payment notice to be delivered personally to Banks and ATMS, SISAL, Lottomatica and ITB stores. From your personal Esse3 page, under the menu item “Taxes”, you can print the payment receipt. With the PagoPa circuit, the payment acquisition times in Esse3 are normally comparable to those of the credit card.

The print copy of the enrolment application and receipt of payment must be kept by the applicant and not submitted to the Office.

Candidates gaining their academic qualification after the date of enrolment must send Annex 1 (if the qualification is conferred in Italy) or Annex 2 (if the qualification is conferred abroad) to the PhD Office (Via Università n.4, 41121-Modena) no later than October 31st, 2024, via e-mail to the address segr.dottorati@unimore.it.

Italian nationals and foreigners holding a foreign academic qualification must present to the PhD Office (Via Università 4, 41121 Modena), no later than December 31st, 2024, via e-mail to the address segr.dottorati@unimore.it, their degree certificates with a list of exams taken, along with an Italian or English translation, an authentication, and

- for degrees obtained in European Union countries: Diploma supplement or certificate of comparability and verification issued by ENIC_NARIC centers;

- for degrees obtained in countries outside the European Union: "declaration of validity" (dichiarazione di valore in loco") issued by the competent Italian consular or diplomatic representative for the country, or certificate of comparability and verification issued by the Cimea as a ENIC_NARIC center.

Failure to submit the above documentation may result, at the sole discretion of this Administration, in the failure to pay the scholarship until it is presented. It is understood that, if the documentation, once submitted, should highlight the lack of access requirements, the doctoral student will be excluded.

As soon as the registration procedure has been completed, all recipients of scholarships must register with the I.N.P.S. Separate Management Fund ("Gestione Separata") and forward a self-certification to prove registration (using ANNEX F "Self-certification of subscription to Gestione Separata Inps") to the Salaries Office ("Ufficio Contabilità") by October 31st, 2024, by sending a scanned copy via e-mail to ufficiostipendi@unimore.it. If PhD students are already registered with the I.N.P.S (Italian Social Security Institute) Separate Management Fund as a result of previous collaboration with other institutions, they merely need to forward the self-certification confirming the registration with the I.N.P.S (in the same way as indicated above).

Foreign citizens who do not yet have a tax identification number must apply to the "Agenzia delle entrate" (Italian Revenue Agency) after their arrival in Italy, and must forward a copy of the card issued by the Agency before October 31st, 2024, to the PhD Office, by sending a scanned copy via mail to segr.dottorati@unimore.it.

For information and assistance concerning the Tax ID code, housing, residence permit, entry visa, registration with the I.N.P.S. Separate Management Fund ("Gestione Separata"), foreign nationals may submit a request to the International Welcome Desk Office, at: internationalwelcomedesk@unimore.it.

Any candidates who have not completed their enrolment in accordance with the terms and conditions indicated above will be considered as withdrawn.

In the case of, from the documentation presented by the candidate, false or misleading declarations are found, relevant for the purposes of enrolment, without prejudice to the penal sanctions referred to in Article 76 of the D.P.R. n.445 dated 28/12/2000 and subsequent modifications, the candidate automatically expired from any enrollment and the fees paid by the interested party will not be refunded.

The university administration reserves the right to ask enrolled students to complete the enrolment documentation if incomplete and/or to provide payment receipt of the single or first instalment.

Any remaining places will be assigned to alternate candidates, according to their positioning on the final merit list.

Vacant reserved places can be filled by other selected candidates or, when there are more than one selection procedures, they will be added to the number of available places of the main selection.

ARTICLE 8 – Reassignment of Places

In the event of vacancies, eligible candidates will be contacted by e-mail and will be invited to enrol, in accordance with the requirements indicated in the preceding article, within one day from the time of receipt of the email. Failure to comply will result in loss of the right to admission.

The procedure will be considered complete within 90 days from the day the list of admitted candidates for the academic year 2024/2025 is published on the University website, under art. 6. For the PhD scholarships awarded by the founding of MD no. 629/2024 and MD no. 630/2024, the procedure shall be considered completed not later than September 18th, 2024.

ARTICLE 9 - Scholarships

The number of study scholarships assigned is indicated in art. 17, divided by courses; these scholarships will be awarded according to the positioning of candidates on the final merit list.

In the case of candidates of equal merit, a decision will be made on the basis of the candidates' financial situation, determined in accordance with the Italian Prime Minister's Decree of April 30th, 1997 and subsequent amendments. Candidates of equal merit will be requested by e-mail to submit for the purposes of evaluating their financial situation:

- Receipt of submission of the Single Sworn Declaration for calculating the ISEE bracket (DSU); this must be forwarded within the final deadline of two days from the day the e-mail was sent. Failure to comply will result in loss of the right to admission.
- The formal I.S.E.E. (Indication of Equivalent Financial Situation) by I.N.P.S.; this must be forwarded within the final deadline of five days from the day the e-mail was sent. Failure to comply will result in loss of the right to admission.

In the event of a tied ISEE indicator, the youngest candidate takes precedence.

The annual amount of a study scholarship is € 16.243,00 (barring subsequent regulatory amendments) and is subject to the I.N.P.S. social security contribution under the separate management fund.

Study scholarships are automatically renewed when PhD students continue in the following year, unless a motivated ruling to the contrary is made by the Teaching Committee.

Study scholarships will be paid in monthly deferred instalments.

PhD scholarships cannot be combined with other scholarships or other forms of financial assistance paid by the University and/or the State, with the exception of those designed to be integrated with PhD student research activities, for periods spent abroad.

In any case, the prohibition of double funding as stipulated by Regulation (EU) No. 2021/241 of February 12th, 2021 must be respected.

Scholarship amounts will be increased by 50% for periods spent abroad of no longer than 12 months. This period may be extended up to a maximum of 18 months for doctoral students under joint guidance or Double Degree program with foreign institutions. This increase may be granted to students awarding positions without scholarship too.

From the first year, each PhD student (with or without scholarship) is guaranteed a budget for an amount not less than 10% of the annual amount of the study scholarship.

ARTICLE 10 - Fees for PhD Programmes

Fees for PhD programs in "Clinical and experimental medicine (CEM)", "Health Innovative Products and Technologies (HIP-TECH)", "Molecular and regenerative medicine" and "Neurosciences" which must be paid in one instalment to the enrolment by those who

enrol are € 180.48 (the amount of the payment slip that can be downloaded online includes the regional tax, the stamp duty and the insurance coverage with medical fault and contagion risk).

Fees for other PhD programs which must be paid in one instalment to the enrolment by those who enrol are € 159.67 (the amount of the payment slip that can be downloaded online includes the regional tax, the stamp duty and the insurance coverage).

Candidates, if in possession of the provided requirements, can apply to Er.GO (Regional Agency for the Right to Higher Education) for the following benefits:

- Scholarship (financial support to the study, with admission by ranking list) incompatible with other types of scholarships awarded for any purpose;
- Accommodation facilities, (with admission by ranking list) for non-resident students "Fuorisede";
- Subsidies for catering service.
- Contributions for international mobility;
- Peer tutoring collaborations in favor of disabled students or students with Specific Learning Disabilities.

Therefore, anyone intending to apply for one of the aforementioned benefits must exclusively refer to the Announcement and to the Application procedure of the Regional Agency for the Right to Higher Education – District headquarters of Modena and Reggio Emilia for the 2024/2025 academic year, that will be available at www.er-go.it (selecting "Servizi" – "Diritto allo studio") starting from July 2024.

To request interventions for the right to study it is necessary to be in possession of the ISEE Certification 2024 for subsidized services for the right to university study and of the digital identity system SPID.

International students, to request interventions for the right of study, must be in possession of the documentation referred to at the link: <https://www.er-go.it?id=6545>.

Applications can be submitted even if not yet enrolled on a PhD Programme. Therefore, applications can be submitted even if the final rankings of candidates for admission to PhD Programmes have not yet been announced publicly.

For information and assistance exclusively in completing the online application, please use the contacts available at the following link: <https://www.er-go.it/contatti>.

Yearly fees for PhD students awarded with places reserved for "apprenticeship contract for advanced training" (Emilia-Romagna Region), under Legislative Decree no. 81/2015 and Interministerial Decree 12/10/2015, are Euro 2,500.00.

These fees will be entirely covered by the Emilia-Romagna Region, which will directly pay the University of Modena and Reggio Emilia on behalf of the students.

The student must make the payment of fees with the amount and in the manner and time allowed as indicated above by the call for regular enrolment in a PhD.

The University will only refund the money to the PhD student once it has received payment from the regional authority.

Should the amount paid by the regional authority be higher than the one that was paid by the student, the remaining amount will be kept by the University to cover expenses related to the PhD Programme.

Should the regulations set for the "apprenticeship contract for advanced training and research" not be observed and the regional authority thus fail to cover the fees, the University will not refund students.

The amounts, and the deadlines for the contribution for the following years will be determined from year to year and will be notified on the web page

<https://www.unimore.it/it/didattica/dottorati-di-ricerca> (approximately towards the end of July).

ARTICLE 11 - Rights and Responsibilities of PhD Students

PhD Programmes require a full-time and exclusive commitment. PhD students may accept forms of employment, pending authorization from the PhD Programme Teaching Committee, related to work activities useful for the acquisition of skills pertaining to the PhD research area, after evaluation of compatibility of those activities with the fruitful development of the educational, didactic and research activities of the doctoral course. Research grants to PhD students without scholarships are allowed, provided the Teaching Committee deems the research area compatible with topic of the doctoral thesis. PhD students are required to perform the research projects assigned to them and to be involved in related study, further research, periods abroad, teaching, as well as any internships affiliated with public or private bodies, in accordance with the requirements set by the competent Teaching Committee. Students who fail to comply may be withdrawn from the programme.

The provisions in art.16 regulate the other responsibilities and rights of doctoral students, including incompatibility, exemption from the obligation to attend, and the conditions of exclusion, as well as the procedure for awarding the PhD of this competition. Further specific obligations may be assigned to the recipients of PhD scholarships awarded by the founding of MD no. 629/2024 and MD no. 630/2024, that may be notified by the Ministry of University and Research. Specifically, they must report their activities every six months in the ministerial database. Failure to do so in the ministerial database may result in the University requesting the return of the scholarship awarded during the last year.

ARTICLE 12 – Public employees

In accordance with the law, a public employee admitted to a PhD course is placed on special leave for study purposes without allowance for the duration of the course and is entitled to a scholarship if the required conditions are met. In the event of admission to a PhD course without a scholarship, or if the scholarship is renounced, the person on leave retains the salary, social security and pension benefits enjoyed by the public administration with which the employment relationship is established. If, following the award of the doctorate, the employment relationship with the public administration is terminated at the employee's request within the following two years, the sums paid pursuant to the second sentence shall be refunded.

A public employee who has already obtained a doctoral degree or has been enrolled on PhD courses for at least one year, benefiting from the leave, shall not be entitled to extraordinary leave with or without pay.

The period of special leave is useful for the purposes of career progression, retirement and social security.

ARTICLE 13 – Awarding of the PhD

The PhD is awarded upon completion of the PhD Programme, when students pass their final examination that consists in the presentation of a PhD Thesis on an original research, carried out meticulously and where results are adequately and scientifically relevant. Should the assessment be negative, the final examination cannot be repeated.

Thesis defense will take place before an Examination Board appointed in compliance with the University PhD Research Program Regulations.

The Rector awards the title of PhD. The issue of the above title is dependent upon the candidate's submission to the competent office of the copy of the final thesis in digital format, which will be guaranteed to be kept and publicly accessible in the special open access archive of the University, as well as to be deposited in the ministerial database, in compliance with the regulations in force concerning thesis embargo and copyright.

Upon completion of the PhD programme, graduates will be invited to fill out a "Questionnaire on the opinions of programme attendees" for the Alma Laurea database. This will enable the Alma Laurea Inter-University Consortium to monitor the training of doctoral students.

ARTICLE 14 – Handling of personal data

The University Administration, in accordance with EU Regulation 2016/679 and Legislative Decree 196/03, as amended by Legislative Decree 101/2018, will use the applicant's personal data solely for the fulfilment of the selection procedures and for administrative purposes.

In accordance with the principles to mentioned rules, by participating in the competition, the candidate authorizes the University of Modena and Reggio Emilia to publish his/her personal data as well as information relating to the admissions examinations on the University website.

The University of Modena and Reggio Emilia adopts equal opportunity principles in its selection procedures and rejects any type of discrimination based on sex, gender identity, nationality, ethnicity, religious belief, sexual orientation, state of health, and any other status or quality that is not strictly relevant to the call outlined in this document.

ARTICLE 15 – Publication

This call is equivalent to notification to all intents and purposes. It will be published on the online University notice board (<https://wss.unimore.it/public/albo/>), on the website of the University <https://www.unimore.it/bandi/StuLau-Sdott.html>, and on the Website of the Ministry of University and Research: <http://bandi.miur.it/doctorate.php/public/cercaFellowship>.

Any changes, updates or additions to the content of this call will be announced, exclusively, on the online University notice board (<https://wss.unimore.it/public/albo/>) and on the following website: <https://www.unimore.it/bandi/StuLau-Sdott.html>.

ARTICLE 16 – Additional Regulations and Director responsible for overseeing all procedures

For matters not explicitly covered in this application procedure, refer to the provisions contained in art. 4 of Law no. 210 of July 3, 1998, art. 19 of Law no. 240 of December 30, 2010, Ministerial Decree no. 226 of December 14, 2021 and to the University regulations in force governing PhD Programmes and to the Teaching Regulations of the University of Modena and Reggio Emilia.

The Director responsible for overseeing all procedures is the Representative of the PhD Office Giuseppe Gatti – Via Università, 4 – Modena - e-mail: segr.dottorati@unimore.it).

For further information, candidates may contact the PhD Office - Via Università 4, 41121 Modena - phone +39 059/2056423 - e-mail: segr.dottorati@unimore.it.

ARTICLE 17 – List of PhD Courses

1) PhD Programme in “CLINICAL AND EXPERIMENTAL MEDICINE (CEM)”

Places with scholarship:

- 4 without specific topic;
- 1 with topic “Design, technological development, and clinical validation of minimally invasive techniques for the anatomic and functional restoration of the stomatognathic system, by maxillary expansion with light forces in patients at the end of growth”;
- 1* with topic “Dissecting mechanisms regulating gene expression in T-cell Lymphoma”;
- 1* with topic “Outdoor air and health: an integrated atlas to support decision and research”;
- 1* with topic “Analysis of the prognostic impact of clinical pathological parameters in bladder cancer”;
- 1* with topic “Platelets involvement in Luminal B HER2- Negative Breast Cancer: Insights into the Role and Interactions with Circulating Cancer Cells and the Tumor Microenvironment”;
- 1* with topic “Innovation in precision medicine in the management of patients with lymphoma by integrating clinical parameters with innovative molecular biology and functional imaging methods, in the context of conventional treatments and cellular therapies”;
- 1** with topic “Research, definition, and evaluation of innovative training initiatives on Health, Environment, Biodiversity, and Climate topics”
- 2 with topic “Nursing Sciences”
- 1*** with topic “Novel bioinformatic approaches for studying immunometabolism”
- 1**** with topic “Biomimetic platforms for the study of the respiratory system”
- 1***** with topic “Confocal Laser Microscopy for Real-Time Pathology Diagnosis in Urological Oncology Surgery”

Places without scholarship: 5

* The person awarded the PhD scholarship financed by the AUSL-IRCCS of Reggio Emilia may also carry out research activities at the structures of the AUSL itself, according to the indications that will be provided by the PhD Course Coordinator and/or the Board of teachers.

** with funds from the National Health Institute (ISS). The doctoral activity will be included as part of the “National Program of Continuing Education in Health-Environment-Climat also at the university level” entrusted to the ISS Training Office (SF).

*** financed with funds from MUR Call "Department of Excellence 2023-2027" - Department of Medical and Surgical Sciences – University of Modena and Reggio Emilia - CUP: E53C23000170001

**** with PNRR DM 630/2024, Mission 4, Component 2, Investment 3.3, for research activities at Chiesi Farmaceutici S.p.A.;

***** funded by the Emilia-Romagna Region as part of the program “Territorio: transizione tecnologica, culturale, economica e sociale” verso la sostenibilit a” (*“Territory: Technological, Cultural, Economic, and Social Transition towards Sustainability”*) - PR FSE+ 2021/2027 – CUP E83C24000320002.

Selection Procedure (for every selection procedures): The Course provides for twelve selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved;
- 2) curriculum vitae of the scientific and teaching activities written in Italian or English;
- 3) copy in Italian or English of the final thesis;
- 4) short text in English (Research Statement) outlining the candidate's motivations for attending the Course and research interests, with specific reference to the selection the candidate is taking part in, if any;
- 5) Certification attesting the knowledge of the English language, or self-certification;
- 6) letters of presentation/reference/recommendation of the candidate written by researchers of particular scientific qualification, in accordance with the procedure indicated in Article 3 of the notice;
- 7) proof of periods of training and scientific activities carried out at qualified national or foreign scientific institutions, including the possible award of scholarships and/or contracts for research and training activities;
- 8) List and copy of the scientific publications proposed for this evaluation.

1) Main selection procedure (for places with scholarship without specific topic and places without scholarship): based on academic and research record

Admission requirements: every 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

2) Selection procedure for a place with scholarship with topic "Design, technological development, and clinical validation of minimally invasive techniques for the anatomic and functional restoration of the stomatognathic system, by maxillary expansion with light forces in patients at the end of growth": based on academic and research record

Admission requirements: Italian second cycle master's degree "Laurea Magistrale" (under D.M. 270/04) in degree class LM-46 Dentistry and orthodontics, or "Laurea specialistica" (under D.M. 509/99) in degree class 52/S Dentistry and orthodontics, or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Dentistry and orthodontics, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

3) Selection procedure for a place with scholarship with topic “Dissecting mechanisms regulating gene expression in T-cell Lymphoma”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-6 Biology, LM-7 Agrarian Biotechnologies, LM-8 Industrial Biotechnologies, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies or “Laurea specialistica” (under D.M. 509/99) in degree classes 6/S Biology, 7/S Agrarian Biotechnologies, 8/S Industrial Biotechnologies, 9/S Pharmaceutical, Veterinary and Medical biotechnologies or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological sciences, in Agro-industrial Biotechnology, in Biotechnology – Agricultural Plant Biotechnology, in Biotechnology – Industrial Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

4) Selection procedure for a place with scholarship with topic “Outdoor air and health: an integrated atlas to support decision and research”: based on academic and research record

Admission requirements: every 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;

- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
 - Up to 5 points for publications (also considering the candidate's academic age).
- Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

5) Selection procedure for a place with scholarship with topic “Analysis of the prognostic impact of clinical pathological parameters in bladder cancer”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-41 Medicine and Surgery or “Laurea specialistica” (under D.M. 509/99) in degree class 46/S Medicine and Surgery, or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Medicine and Surgery, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

6) Selection procedure for a place with scholarship with topic “Platelets involvement in Luminal B HER2- Negative Breast Cancer: Insights into the Role and Interactions with Circulating Cancer Cells and the Tumor Microenvironment”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, or “Laurea specialistica” (under D.M. 509/99) in degree class 9/S Pharmaceutical, Veterinary and Medical biotechnologies, or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in in Biotechnology – Medical Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Veterinary Biotechnology, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

7) Selection procedure for a place with scholarship with topic “Innovation in precision medicine in the management of patients with lymphoma by integrating clinical parameters with innovative molecular biology and functional imaging methods, in the context of conventional treatments and cellular therapies”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-41 Medicine and Surgery or “Laurea specialistica” (under D.M. 509/99) in degree class 46/S Medicine and Surgery, or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Medicine and Surgery, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

8) Selection procedure for a place with scholarship with topic “Research, definition, and evaluation of innovative training initiatives on Health, Environment, Biodiversity, and Climate topics”: based on academic and research record

Admission requirements: every 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

9) Selection procedure for two places with scholarship with topic “Nursing Sciences”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-SNT1 Nursing and Obstetric Sciences, or “Laurea specialistica” (under D.M. 509/99) in degree class SNT/01/S Nursing and Obstetric Sciences, or Second cycle Master's degree obtained abroad, equivalent to the above-

mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

10) Selection procedure for a place with scholarship with topic “Novel bioinformatic approaches for studying immunometabolism”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-41 Medicine and Surgery, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, LM-13 Pharmacy and industrial pharmacy or “Laurea specialistica” (under D.M. 509/99) in degree classes 46/S Medicine and Surgery, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, 14/S Pharmacy and industrial pharmacy or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Medicine and Surgery, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, in Chemistry and Pharmaceutical Technologies, or Chemistry and Pharmaceutical Technology, in Pharmacy or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

11) Selection procedure for a place with scholarship with topic “Biomimetic platforms for the study of the respiratory system”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-41 Medicine and Surgery, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, or “Laurea specialistica” (under D.M. 509/99) in degree class 46/S Medicine and Surgery, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Medicine and Surgery, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, or Second cycle Master's degree obtained abroad, equivalent to the above-

mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

12) Selection procedure for a place with scholarship with topic “Confocal Laser Microscopy for Real-Time Pathology Diagnosis in Urological Oncology Surgery”: based on academic and research record

Admission requirements: every 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Up to 30 points for the candidate's research project proposal (research statement), including a summary of its methodology and underlying scientific rationale;
- Up to 25 points for the candidate's scientific-professional curriculum (including thesis and degree mark, letters of presentation and knowledge of English and other qualifications, excluding publications);
- Up to 5 points for publications (also considering the candidate's academic age).

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

Areas of the PhD Programme: The Doctorate is organized in three curricula: 1) Public Health; 2) Translational medicine; 3) Cell Biology.

Official course language: English.

Further information on research lines for each curriculum and the relative tutor is available on the PhD Programme website: <http://www.cem-phdschool.unimore.it/>

2) PhD Programme in “COMPUTER AND DATA SCIENCE FOR TECHNOLOGICAL AND SOCIAL INNOVATION”

Places with scholarship:

- 3 scholarships without specific topic;
- 1 with topic “**GraphRAG: Retrieval Augmented Generation and Knowledge Graph integration**” (with PNRR DM 630/2024 funds Mission 4, Component 2, Investment 3.3) for research activities at PricewaterhouseCoopers Business Services S.r.l.;
- 1 with topic “**Perception and localization algorithms for self-driving racing cars**” (with PNRR DM 630/2024 funds Mission 4, Component 2, Investment 3.3) for research activities at Hipert Srl;

- 1 with topic “Distributed embedded intelligence systems for smart city applications”
(with PNRR DM 629/2024 funds Mission 4, Component 1, Investment 4.1 “Public Administration”) for research activities at Municipality of Mantova;

- 1 with topic “Measuring the power of parameter setting theory on historical corpora”
(with PRIN 2022 funds - project 20224XEE9P Parameter theory on historical corpora: Measuring the power of parameter setting theory on historical corpora – PARTHICO – CUP: E53D23008710006 – D.D. no. 1016);

Places without scholarship: 2

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure (for all the selection procedures): based on academic and research record and interview. The Course provides for five selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved, in the case of candidates who have not yet completed the final graduation exam, must be presented the list of the examinations and the votes given;
- 2) curriculum vitae of research and teaching activities, written in Italian or English, indicating university degree qualifications obtained;
- 3) a summary of the master thesis, in Italian or English – minimum of three and maximum of six pages – organised under the following headings: thesis motivations, research methodology used, results obtained;
- 4) a brief statement of no more than two pages written in English, outlining the candidate’s motivation for attending the PhD Programme and a description of his/her research interests (Statement of Research Interest). the candidate must choose the research topic from those available on the Course website <https://www.cds.unimore.it/tesi-di-ricerca/>, possibly indicating a second one in addition to the main one;
- 5) Certification of English language proficiency (TOEFL, Proficiency, or others);
- 6) A certificate of passing the GRE (Graduate Record Examination) test;
- 7) up to three letters of reference written by experts in the fields of research of the Course, with an indication of the public or private structure at which these experts work, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

1) Main selection procedure (for places with scholarship without specific topic and places without scholarship)

2) Selection procedure for a place with scholarship with topic “GraphRAG: Retrieval Augmented Generation and Knowledge Graph integration

3) Selection procedure for a place with scholarship with topic “Perception and localization algorithms for self-driving racing cars”

4) Selection procedure for a place with scholarship with topic “Distributed embedded intelligence systems for smart city applications”

5) Selection procedure for a place with scholarship with topic “Measuring the power of parameter setting theory on historical corpora”

Evaluation Methods (for all selection procedures):

The Selection Committee has the capacity to assign scores up to a total of 120 points in the evaluation of candidate qualifications, 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 - description of a hypothetical research project of the candidate's choice among the theses and topics offered by the course (<https://www.cds.unimore.it/tesi-di-ricerca/>), 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 awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The list of those admitted to the interview, as well as any changes in the methods and timing of the selection procedure, will be published on a date between between August 19th and 23rd, 2024 exclusively at <https://www.bandit.unimore.it/StuLau-GradSdott.html> on the University website

- **Interview:** 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 course (<https://www.cds.unimore.it/tesi-di-ricerca/>). The assessment will focus on the project's scientific soundness, feasibility and congruity with the themes of the PhD course.

Any publications by the candidate will also be discussed. Part of the interview will be conducted in English.

Minimum score for passing the interview: 40 points

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.

EXAM SCHEDULE – (for all selection procedures)

In-person interview: August 28th 2024, 9:00 starting for candidates of the main selection. Interviews could continue on September 2nd 2024, 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): August 28th 2024, 9:00, 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 September 2st 2024, 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.

3) PhD Programme in “HEALTH INNOVATIVE PRODUCTS AND TECHNOLOGIES (HIP-TECH)”

Places with scholarship:

- 3 scholarships without specific topic
- 1 with topic **“Development of health innovative products and technologies”** (with PNRR DM 629/2024 funds Mission 4, Component 1, Investment 4.1 “PNRR”);
- 1 with topic **“Effect of bacterial lysates on pathogens responsible for Urogenital Infections”** (with PNRR DM 630/2024 funds Mission 4, Component 2, Investment 3.3) for research activities at Depofarma SpA);
- 1 with topic **“Development of Biocides in accordance with EU Regulation 528/2012 for Low Environmental Impact Treatment of Water and Surfaces”** (with PNRR DM 630/2024 funds Mission 4, Component 2, Investment 3.3) for research activities at Barchemicals S.r.L.);
- 1 with topic **“Development and Formulation strategies for Pharmaceutical Products with a Focus on Rare Diseases”**

Places without scholarship: 2

Evaluation Methods (for all selection procedures): The Course provides for five selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved; 2) curriculum vitae of the scientific and teaching activities written in Italian or English;
- 3) copy in Italian or English of the final thesis;
- 4) short text in English (Research Statement) outlining the candidate's motivations for attending the Course and research interests, with specific reference to the selection the candidate is taking part in, if any;
- 5) Certification attesting the knowledge of the English language, or self-certification;

6) letters of presentation/reference/recommendation of the candidate written by researchers of particular scientific qualification, in accordance with the procedure indicated in Article 3 of the notice;

7) proof of periods of training and scientific activities carried out at qualified national or foreign scientific institutions, including the possible award of scholarships and/or contracts for research and training activities;

8) List and copy of the scientific publications proposed for this evaluation.

1) Main selection procedure (for places with scholarship without specific topic and places without scholarship): based on academic and research record

Admission requirements: Italian second cycle master's degree "Laurea Magistrale" (under D.M. 270/04) in degree classes LM-6 Biology, LM-8 Industrial Biotechnologies, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, LM-13 Pharmacy and industrial pharmacy, LM-21 Biomedical engineering, LM-41 Medicine and surgery, LM-46 Dentistry and orthodontics, LM-54 Chemistry, LM-67 Sport science for prevention and rehabilitation or "Laurea specialistica" (under D.M. 509/99) in degree classes 6/S Biology, 8/S Industrial Biotechnologies, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, 14/S Pharmacy and industrial pharmacy, 26/S Biomedical engineering, 46/S Medicine and surgery, 52/S Dentistry and orthodontics, 62/S Chemistry, 76/S Sport science for prevention and rehabilitation or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological Sciences, in Agro-Industrial Biotechnology, in Biotechnology – Industrial Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, in Chemistry and Pharmaceutical Technologies or Chemistry and Pharmaceutical Technology, in Pharmacy, in Biomedical Engineering, in Medical Engineering, in Medicine and Surgery, in Chemistry, in Dentistry and Dentistry and orthodontics, in Exercise and Sports Sciences, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

Degree grade: from 0 to 10 points,

Thesis/summary: from 0 to 12 points,

Publications: from 0 to 4 points,

Research statement: from 0 to 12 points,

Research stays abroad: from 0 to 5 points,

Letters of recommendation: from 0 to 12 points,

Other qualifications (certification of English language proficiency, certification of IT courses, scholarships, awards, master's specialization, doctorate, internships, and other possible qualifications): from 0 to 5 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

2) Selection procedure for a place with scholarship with topic "Development of health innovative products and technologies": based on academic and research record

Admission requirements: Italian second cycle master's degree "Laurea Magistrale" (under D.M. 270/04) in degree classes LM-6 Biology, LM-8 Industrial Biotechnologies, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, LM-13 Pharmacy and industrial pharmacy, LM-21 Biomedical engineering, LM-41 Medicine and surgery, LM-46 Dentistry and orthodontics, LM-54 Chemistry, LM-67 Sport science for prevention and rehabilitation

or “Laurea specialistica” (under D.M. 509/99) in degree classes 6/S Biology, 8/S Industrial Biotechnologies, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, 14/S Pharmacy and industrial pharmacy, 26/S Biomedical engineering, 46/S Medicine and surgery, 52/S Dentistry and orthodontics, 62/S Chemistry, 76/S Sport science for prevention and rehabilitation or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological Sciences, in Agro-Industrial Biotechnology, in Biotechnology – Industrial Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, in Chemistry and Pharmaceutical Technologies or Chemistry and Pharmaceutical Technology, in Pharmacy, in Biomedical Engineering, in Medical Engineering, in Medicine and Surgery, in Chemistry, in Dentistry and Dentistry and orthodontics, in Exercise and Sports Sciences, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

Degree grade: from 0 to 10 points,

Thesis/summary: from 0 to 12 points,

Publications: from 0 to 4 points,

Research statement: from 0 to 12 points,

Research stays abroad: from 0 to 5 points,

Letters of recommendation: from 0 to 12 points,

Other qualifications (certification of English language proficiency, certification of IT courses, scholarships, awards, master's specialization, doctorate, internships, and other possible qualifications): from 0 to 5 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

3) Selection procedure for a place with scholarship with topic “Effect of bacterial lysates on pathogens responsible for Urogenital Infections”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree classes LM-6 Biology, LM-8 Industrial Biotechnologies, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, LM-13 Pharmacy and industrial pharmacy, LM-21 Biomedical engineering, or “Laurea specialistica” (under D.M. 509/99) in degree classes 6/S Biology, 8/S Industrial Biotechnologies, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, 14/S Pharmacy and industrial pharmacy, 26/S Biomedical engineering, or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological Sciences, in Agro-Industrial Biotechnology, in Biotechnology – Industrial Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, in Chemistry and Pharmaceutical Technologies or Chemistry and Pharmaceutical Technology, in Pharmacy, in Biomedical Engineering, i, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

Degree grade: from 0 to 10 points,

Thesis/summary: from 0 to 12 points,

Publications: from 0 to 4 points,
Research statement: from 0 to 12 points,
Research stays abroad: from 0 to 5 points,
Letters of recommendation: from 0 to 12 points,
Other qualifications (certification of English language proficiency, certification of IT courses, scholarships, awards, master's specialization, doctorate, internships, and other possible qualifications): from 0 to 5 points.
Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

4) Selection procedure for a place with scholarship with topic “Development of Biocides in accordance with EU Regulation 528/2012 for Low Environmental Impact Treatment of Water and Surfaces”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree classes LM-6 Biology, LM-8 Industrial Biotechnologies, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, LM-13 Pharmacy and industrial pharmacy, LM-21 Biomedical engineering, LM-41 Medicine and surgery, LM-46 Dentistry and orthodontics, LM-54 Chemistry, LM-67 Sport science for prevention and rehabilitation or “Laurea specialistica” (under D.M. 509/99) in degree classes 6/S Biology, 8/S Industrial Biotechnologies, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, 14/S Pharmacy and industrial pharmacy, 26/S Biomedical engineering, 46/S Medicine and surgery, 52/S Dentistry and orthodontics, 62/S Chemistry, 76/S Sport science for prevention and rehabilitation or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological Sciences, in Agro-Industrial Biotechnology, in Biotechnology – Industrial Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, in Chemistry and Pharmaceutical Technologies or Chemistry and Pharmaceutical Technology, in Pharmacy, in Biomedical Engineering, in Medical Engineering, in Medicine and Surgery, in Chemistry, in Dentistry and Dentistry and orthodontics, in Exercise and Sports Sciences, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

Degree grade: from 0 to 10 points,
Thesis/summary: from 0 to 12 points,
Publications: from 0 to 4 points,
Research statement: from 0 to 12 points,
Research stays abroad: from 0 to 5 points,
Letters of recommendation: from 0 to 12 points,
Other qualifications (certification of English language proficiency, certification of IT courses, scholarships, awards, master's specialization, doctorate, internships, and other possible qualifications): from 0 to 5 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

5) Selection procedure for a place with scholarship with topic “Development and Formulation strategies for Pharmaceutical Products with a Focus on Rare Diseases”: based on academic and research record

Admission requirements: Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree classes LM-6 Biology, LM-8 Industrial Biotechnologies, LM-9 Pharmaceutical, Veterinary and Medical biotechnologies, LM-13 Pharmacy and industrial pharmacy, LM-21 Biomedical engineering, LM-41 Medicine and surgery, LM-46 Dentistry and orthodontics, LM-54 Chemistry, LM-67 Sport science for prevention and rehabilitation or “Laurea specialistica” (under D.M. 509/99) in degree classes 6/S Biology, 8/S Industrial Biotechnologies, 9/S Pharmaceutical, Veterinary and Medical biotechnologies, 14/S Pharmacy and industrial pharmacy, 26/S Biomedical engineering, 46/S Medicine and surgery, 52/S Dentistry and orthodontics, 62/S Chemistry, 76/S Sport science for prevention and rehabilitation or Italian second cycle master's degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological Sciences, in Agro-Industrial Biotechnology, in Biotechnology – Industrial Biotechnology, in Biotechnology – Pharmaceutical Biotechnology, in Biotechnology – Medical Biotechnology, in Biotechnology – Veterinary Biotechnology, in Chemistry and Pharmaceutical Technologies or Chemistry and Pharmaceutical Technology, in Pharmacy, in Biomedical Engineering, in Medical Engineering, in Medicine and Surgery, in Chemistry, in Dentistry and Dentistry and orthodontics, in Exercise and Sports Sciences, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

Degree grade: from 0 to 10 points,

Thesis/summary: from 0 to 12 points,

Publications: from 0 to 4 points,

Research statement: from 0 to 12 points,

Research stays abroad: from 0 to 5 points,

Letters of recommendation: from 0 to 12 points,

Other qualifications (certification of English language proficiency, certification of IT courses, scholarships, awards, master's specialization, doctorate, internships, and other possible qualifications): from 0 to 5 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

Areas of the PhD Programme: The Doctorate is organized in two curricula: 1) Health Products; 2) Health Technologies.

Official course language: English.

Further information on research lines for each curriculum and the relative tutor is available on the PhD Programme website: <http://www.hiptech.unimore.it>

4) PhD Programme in “HUMANITIES, TECHNOLOGY AND SOCIETY”

Places with scholarship:

- 4 without specific topic

- 1 with topic “The impact of digital transition on Lifelong learning and vocational training offer – beyond the adoption of technologies” (with PNRR DM 630/2024, Mission 4, Component 2, Investment 3.3, for research activities at Demetra Formazione S.r.l.

Places without scholarship: 1

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for two selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selection is intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following additional documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved;
- 2) curriculum vitae of one’s research and teaching activities written in Italian or English indicating university degree qualifications obtained;
- 3) a copy of the degree dissertation in electronic form, degree obtained prior to D.M. 509/99 or second level degree (“laurea specialistica / magistrale”) or equivalent degree (if obtained abroad), or an abstract of the degree dissertation;
- 4) a short essay written in English – no longer than two pages – which illustrates the reasons why the candidate wishes to attend the PhD Programme and describes his/her specific research interests (Statement of Research Interest);
- 5) any certification attesting to knowledge of the English language (TOEFL, CAE/Proficiency or other) or other languages, indicating the level achieved by the candidate;
- 6) a research project, in Italian or English, in one of the subject areas of the PhD Programme. The project will be a description – between four and ten pages in length – with: aim of the research, literature review, materials and methods, results, references. The project will not be binding for the Teaching Committee in terms of the possible attribution of a thesis title, regarding the scholarships without specific topic.

1) Main selection procedure (for places with scholarship without specific topic and place without scholarship): based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be accepted for interview where the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to interview, and any variation in the selection procedure, will be published between August 19th and 23th, 2024 on the University website at page <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview, as well as the candidate's knowledge of the English language and of another language the candidate may have indicated in the

application, will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates.

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

2) Selection procedure for a place with scholarship with topic “The impact of digital transition on Lifelong learning and vocational training offer – beyond the adoption of technologies”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be accepted for interview where the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to interview, and any variation in the selection procedure, will be published between August 19th and 23th, 2024 on the University website at page <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview, as well as the candidate's knowledge of the English language and of another language the candidate may have indicated in the application, will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates.

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

Areas of the PhD Programme:

The PhD course, in partnership with Fondazione Collegio San Carlo of Modena and Almo Collegio Borromeo of Pavia, integrates theoretical and methodological skills typical of the human and social sciences, combines them with technological and computer knowledge, and orients them, including with application in mind, towards both frontier and current areas and issues, such as sustainability, green transition, and the governance of new technologies. Therefore, the course is inspired in all its articulations to a logic of interdisciplinary hybridization and involves the humanities (history, philosophy, philology, the science of books, etc.), socio-economic disciplines (economics, sociology, law, organizational sciences, management, etc.) and computer science disciplines,

Language required is Italian. English language proficiency is required as the teaching activities may be conducted in English. theses may be written in Italian or English. On the basis of adequately motivated requests by the PhD student, the PhD Board may authorize the writing of theses in languages other than Italian or English.

Further information is available on the PhD Programme website at:

<https://www.phdhumantechsociety.unimore.it/>

EXAM SCHEDULE

In-person interview: September 2nd, 2024, 10:00 a.m. Interviews could continue on September 3rd 2024, 10.00 a.m., should there be a high number of candidates.

The examination will take place in Aula Biblioteca antica, Fondazione Collegio San Carlo, via San Carlo 5, Modena.

Interview via Microsoft Teams (allowed for each candidate, regardless of residence): September 2nd, 2024, 10:00 a.m. Interviews could continue on September 3rd 2024, 10.00 a.m., should there be a high number of candidates.

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.

5) PhD Programme in “INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)”

Places with scholarship:

- 4 scholarships without specific topic
- 1 with topic **“Exploration of innovative techniques for embedded systems in the field of digital printing applications”**;
- 1 with topic **“Deep learning for multi modal time series analysis in anomaly detection and predictive maintenance applications”**;
- 1 with topic **“Federated Learning for the Protection of Vulnerable Road Users”** (with ALERT funds obtained from a competitive cascade call of the Extended Partnership (EP) PNRR named RESTART - Project Code: ALERT-PNRR-BAC-MERANI);
- 1 with topic **“Big Data methodologies for Large Language and Machine Learning Models”**;
- 1 with topic **“Automatic cataplexy detection through video analysis”**;
- 1 with topic **“Novel multimodal architectures for visual and textual data generation for universities and research entities”**;
- 1 with topic **“Development of Large Language Models for Intrinsic Business Value Analysis Based on Multimodal Data”** (with PNRR DM 630/2024, Mission 4, Component 2, Investment 3.3 for research activities at ONE T S.r.l.);
- 1 with topic **“Large-Scale Multimodal and Trustworthy Learning for industry and public administration”** (funded by the Emilia-Romagna Region as part of the "Sustainability and Resilience of Society, Communities, and Territories" program - PR FSE+ 2021/2027 – CUP E93C23001390002);
- 1 with topic **“Big Data Analytics e Digital Twin for urban traffic modelling: towards sustainable and green smart cities”** (funded by the Emilia-Romagna Region as part of the "Sustainability and Resilience of Society, Communities, and Territories" program - PR FSE+ 2021/2027 – CUP E93C23001390002);
- 1 with topic **“Federated and continual learning for privacy oriented efficient learning systems with application in industry and healthcare”** (funded by the Emilia-Romagna Region as part of the "Territory: Technological, Cultural, Economic, and Social Transition towards Sustainability" program - PR FSE+ 2021/2027 – CUP E83C24000320002);
- 1 place funded by a three-year research grant with topic **“Highly efficient controls of Electric drives for transportation electrification”** – Tutor: Prof. Davide Barater – SSD: ING/IND 32 Electrical converters, machines and drives – yearly amount of the grant (gross amount): € 19.367,00 with funds project SCAPE-Switching-Cell-Array-based Power Electronics conversion for future electric vehicles (HORIZON EUROPE - Project number: G.A. no. 101056781, CUP: E93C22000650006)
- 1 place funded by a three-year research grant with topic **“Power converter architecture for vehicle to grid integration”** – Tutor: Prof. Davide Barater – SSD: ING/IND 32 Electrical converters, machines and drives – yearly amount of the grant (gross amount): € 19.367,00 with funds project SCAPE-Switching-Cell-Array-based Power Electronics conversion for future electric vehicles (HORIZON EUROPE - Project number: G.A. no. 101056781, CUP: E93C22000650006);

- 1 place funded by a three-year research grant with topic “Highly efficient controls of Electric drives for transportation electrification” – Tutor: Prof. Davide Barater – SSD: ING/IND 32 Electrical converters, machines and drives – yearly amount of the grant (gross amount): € 19.367,00 with funds project SCAPE-Switching-Cell-Array-based Power Electronics conversion for future electric vehicles (HORIZON EUROPE - Project number: G.A. no. 101056781, CUP: E93C22000650006);

Places without scholarship: 6

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): based on academic and research record. The Course provides for fourteen selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate. The selections are intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates have to submit the following documents:

- 1) self-certification of the degree (or degree certificate in the case of a degree obtained abroad) showing the list of examinations taken and grades obtained; in the case of candidates who have not yet taken their final degree examination, the list of examinations taken and grades obtained must be presented;
- 2) curriculum vitae of research and teaching activities, written in Italian or English, indicating university degree qualifications obtained;
- 3) a summary of the master thesis, in Italian or English – minimum of three and maximum of six pages – organised under the following headings: motivations, research methodology used, results obtained, in the case of candidates who have not yet graduated, a written presentation of the thesis that will be discussed;
- 4) a brief statement of no more than two pages written in English, outlining the candidate’s motivation for attending the PhD Programme (Motivation) and a description of his/her research interests (Statement of Research Interest). The candidate should express a maximum of two preferences among the research topics available on the Course website <http://www.ict.unimore.it/> - 'Research Topics';
- 5) certification of English language skills (TOEFL, Proficiency or others) if possessed;
- 6) proof of passing the GRE (Graduate Record Examination) test if possessed;
- 7) up to three letters of reference which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

1) Main selection procedure (for places with scholarship without specific topic and places without scholarship: based on academic and research record

2) Selection procedure for a place with scholarship with topic “Exploration of innovative techniques for embedded systems in the field of digital printing applications”: based on academic and research record

3) Selection procedure for a place with scholarship with topic “Deep learning for multi modal time series analysis in anomaly detection and predictive maintenance applications”: based on academic and research record

4) Selection procedure for a place with scholarship with topic “Federated Learning for the Protection of Vulnerable Road Users”: based on academic and research record

5) Selection procedure for a place with scholarship with topic “Big Data methodologies for Large Language and Machine Learning Models”: based on academic and research record

6) Selection procedure for a place with scholarship with topic “Automatic cataplexy detection through video analysis”: based on academic and research record

7) Selection procedure for a place with scholarship with topic “Novel multimodal architectures for visual and textual data generation for universities and research entities”: based on academic and research record

8) Selection procedure for a place with scholarship with topic “Development of Large Language Models for Intrinsic Business Value Analysis Based on Multimodal Data”: based on academic and research record

9) Selection procedure for a place with scholarship with topic “Large-Scale Multimodal and Trustworthy Learning for industry and public administration”: based on academic and research record

10) Selection procedure for a place with scholarship with topic “Big Data Analytics e Digital Twin for urban traffic modelling: towards sustainable and green smart cities”: based on academic and research record

11) Selection procedure for a place with scholarship with topic “Federated and continual learning for privacy oriented efficient learning systems with application in industry and healthcare”: based on academic and research record

12) Selection procedure for a place funded by a three-year research grant with topic “Highly efficient controls of Electric drives for transportation electrification”: based on academic and research record

13) Selection procedure for a place funded by a three-year research grant with topic Power converter architecture for vehicle to grid integration”: based on academic and research record

14) Selection procedure for a place funded by a three-year research grant with topic “Highly efficient controls of Electric drives for transportation electrification”: based on academic and research record

Methods of evaluation (for all the selective procedures):

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum vitae including research and teaching activities, and description of motivation (Motivation) and research interests (Statement of Research Interest): 0 to 35 points,
- Exams taken and grades achieved: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Commission has the option of conducting a cognitive interview by videoconference (via Skype), which purpose is to examine in depth the qualifications submitted by candidates. This interview does not involve the awarding of a mark.

The Commission may express an opinion in relation to the aptitude of candidates to follow a curriculum or a research theme.

Once the qualifications have been assessed, the Selection committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 40/60 will be considered eligible.

Areas of the PhD Programme: The Doctorate offers three curricula: 1) Computer engineering and Science; 2) Electronics and Telecommunications; 3) Industrial Applications of ICT). The topics of the ICT Doctorate concern the disciplines of Computer Engineering and Science, Electronics, Electronic Measurements, Telecommunications, Electromagnetic Fields, Control Theory and Automation and Electrical Engineering, as well as industrial applications of the aforementioned disciplines in the strategic priority areas defined by the Horizon Europe programs, the National Research Program and the National Recovery and Resilience Plan (PNRR).

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study.

Further information is available from the PhD Programme website at: <http://www.ict.unimore.it/> (entry " Research Topics ").

The Course is inside del Doctoral School in "E4E (Engineering for Economics – Economics for Engineering)".

6) PhD Programme in CIVIL, ENVIRONMENTAL AND MATERIALS ENGINEERING

Places with scholarship:

- 7 without specific topic;
- **1 with topic "Valorization and inertization of by-products and waste in ceramic production processes from the perspectives of the circular economy"** (with PNRR DM 629/2024 funds – Mission 4, Component 1, Investment 3.4 "Digital and Environmental Transition" for research activities at GARC Ambiente);
- **1 with topic "Innovation and sustainability in the manufacturing of hydrogen fuel cells"** (with PNRR DM 630/2024 funds – Mission 4, Component 2, Investment 3.3 for research activities at Athena S.p.A.)

Places without scholarships: 1

Reserved Places:

- **1 place funded by a three-year research grant (Title of the research project: "Design, deposition and characterization of High Entropy Alloy (HEA) coatings: optimization of compositions and properties"** – Tutor: Prof. Giovanni Bolelli – SSD: ING-IND/22 Science and technology of materials) – yearly amount of the grant (gross amount) € 19.367,00 (with funds from the European Project CoBRAIN - Integrated Computational-

Experimental material Engineering of Thermal Spray coatings" HORIZON-CL4-2022-RESILIENCE-01-19 – Grant agreement ID: 101092211 – BOLELLI-COBRAIN-H2020 - (CUP E93C22003120006);

- 2 for scholarship holders from foreign Countries

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for five selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates are required to submit the following additional documents:

- 1) list of exams taken, inclusive of related credits and grades;
- 2) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), in both cases the final mark for the degree must be clearly indicated, as well as the maximum mark envisaged for this qualification by the University awarding the degree;
- 3) curriculum vitae written in Italian or English indicating higher education qualifications;
- 4) a summary of final thesis in Italian or English, or equivalent – minimum of three and maximum of six pages – organised under the following headings: thesis motivations, research methodology used, results obtained;
- 5) a short essay written in English – no longer than two pages – which illustrates the reasons why the candidate wishes to attend the PhD Programme and describes his/her specific research interests (Statement of Research Interest);
- 6) Certification of English language proficiency (TOEFL, Proficiency, or others);
- 7) A certificate of passing the GRE (Graduate Record Examination) test;
- 8) any recommendation/reference letters (maximum three) written by experts in the field of research of the PhD Programme, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

With reference to selection procedure no. 1 mentioned below, candidates that intend to apply primarily for the reserved place with three-year research grant "Design, deposition and characterization of High Entropy Alloy (HEA) coatings: optimization of compositions and properties", must fill in and attach to the online application form the facsimile "Annex D2" of this call.

Referring to the selection procedure n. 1 indicated below, candidates who meet the requirement, (holding a scholarship from foreign Countries) and wish to apply primarily for the reserved places for candidates with scholarship of foreign Countries must fill in and attach to the online application form the facsimile "Annex D3" of this call.

The Selection Commission will examine the presentation of the above documents for those who have expressed their interest in competing primarily for the reserved places.

1) Main selection procedure (for places with scholarship without specific topic, place without scholarship, places reserved for scholarship holders from foreign Countries and the place funded by a three-year research grant): based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,
- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

The places reserved for scholarship holders from foreign countries will be allocated, among the candidates who have expressed priority interest, and have submitted appropriate documentation of possession of the scholarship or the application to obtain it, to those with the highest score on the ranking list.

For the research grant titled "**Design, deposition and characterization of High Entropy Alloy (HEA) coatings: optimization of compositions and properties**" the Commission will issue an eligibility judgment limited to those who have expressed their interest, based on the following evaluable aspects:

- Italian second cycle master's degree "Laurea Magistrale" (under D.M. 270/04) in degree class LM-53 in Material engineering or "Laurea specialistica" (under D.M. 509/99) in degree class 61/S in Material engineering; or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Material Engineering or in Materials Science) or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.
- relevance of the curriculum to the research grant topic.

The reserved position covered by the research grant will be awarded to the candidate who, among those who have expressed primary interest, achieves the highest ranking score.

2) Selection procedure for a place with scholarship with topic "Valorization and inertization of by-products and waste in ceramic production processes from the perspectives of the circular economy": based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,
- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

3) Selection procedure for a place with scholarship with topic "Innovation and sustainability in the manufacturing of hydrogen fuel cells": based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,
- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

Areas of the PhD Programme:

The Course aims to train high-profile figures with a solid multidisciplinary background in the field of Civil, Environmental and Materials disciplines and topics closely related to the Sustainable Development Goals (SDGs) jointly endorsed by the European Commission (European Skills Agenda) and by the United Nations (United Nations 2030 Agenda).

The course objectives aim to:

- 1) train theoretical/modelling, technological and design skills aimed at the conception, design, work management, development, verification, testing, management and decommissioning of building and soil protection works, structures and infrastructures and, in general, of civil and environmental and territorial systems and plants, in compliance with the regulatory requirements in force and through the use of modern and interoperable tools (BIM, CAD, FEM);
- 2) develop theories and innovative methods for the study and modelling of pollution phenomena and the dynamics of pollutants in the environment and in the atmosphere, to the analysis of environmental impact and health, eco-toxicological and major accident risk, to the design, management and verification of water, waste water and sludge treatment and recovery plants; to optimize waste management to improve products and processes sustainability to reach a circular economy;
- 3) foster the design, synthesis/production, characterisation and scaling-up of new materials in applications belonging to multiple sectors (mechanical engineering, ceramics, biomedical, aerospace, renewable energy, etc.).

In order to best achieve these objectives, the PhD course is structured through 3 curricula: one dedicated to Civil Engineering topics, a second one focused on Environmental Engineering topics and a third one focused on Materials Engineering topics. The research paths covered in this PhD Course will be integrated with the cross-curricular nature of the topics that distinguish the E4E (Engineering for Economics - Economics for Engineering) Doctoral School, to which this Course belongs.

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study.

Further information is available on the PhD Programme website at: <https://www.phd-dcem.unimore.it/>.

7) PhD Programme in “INDUSTRIAL INNOVATION ENGINEERING” (Main venue: Reggio Emilia)

Places with scholarship:

- 7* scholarships without specific topic;
- 1 with topic **“Forecasting and Inventory Management: development of a combined optimization model for efficient, resilient, and sustainable component management”**

(with PNRR DM 630/2024 funds, Mission 4, Component 2, Investment 3.3) for research activities at Emmegi S.p.A.;

- **1 with topic “Characterization of the interaction between humans and complex robotic systems within dynamic application contexts”** (co-financed with funds from the Project “2022BYSBYX - AI-DROW: Anti-Intruder multi-Drone system for Wild animals in smart farming environments” - Project Code 020142_23_PPD_SABATTINI_PRIN2022–CUP E53D23000580006 - NATIONAL RECOVERY AND RESILIENCE PLAN (NRRP) – Mission 4 – Component C2. From Research to Business - Investment 1.1 Fund for the National Research Programme (NRP) and Projects of National Relevance (PRIN)”, funded by the European Union – NextGenerationEU - ref. D.D. No. 104 dated 02/02/2022);

- **1 with topic “Nonlinear control systems for complex robotic systems for application in realistic environments, in the presence of human operators”** (co-financed with funds from the Project “2022BYSBYX - AI-DROW: Anti-Intruder multi-Drone system for Wild animals in smart farming environments” - Project Code 020142_23_PPD_SABATTINI_PRIN2022– CUP E53D23000580006 - NATIONAL RECOVERY AND RESILIENCE PLAN (NRRP) – Mission 4 – Component C2. From Research to Business - Investment 1.1 Fund for the National Research Programme (NRP) and Projects of National Relevance (PRIN)”, funded by the European Union – NextGenerationEU - ref. D.D. No. 104 dated 02/02/2022);

- **1 with topic “Control and artificial intelligence methodologies for interaction, motion control, and task planning for heterogeneous robotic systems”** (co-financed with funds from the Project 2020NH7EAZ - COWBOT: preCision livestock farming With collaborative heterOgeneous roboT teams” - CUP E83D22001010001, funded under the PRIN 2020 Call with Ministerial Decree No. 1159 dated 18/07/2022);

* one of the scholarships is funded by Department of Sciences and Method for Engineering as part of the department's co-financing of the 2024 departmental development FAR

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for five selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may present additional documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved;
- 2) curriculum vitae of research and teaching activities, written in Italian or English, indicating university degree qualifications obtained;
- 3) a summary of the master thesis, or equivalent, in Italian or English – minimum of three and maximum of six pages – organised under the following headings: thesis motivations, research methodology used, results obtained;

- 4) a short essay written in English – no longer than two pages – which illustrates the reasons why the candidate wishes to attend the PhD Programme and describes his/her specific research interests (Statement of Research Interest);
- 5) Certification of English language proficiency (TOEFL, Proficiency, or others);
- 6) A certificate of passing the GRE (Graduate Record Examination) test;
- 7) any recommendation/reference letters (maximum three) written by experts in the field of research of the PhD Programme, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

1) Main selection procedure (for places with scholarship without specific topic): based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Grades of the exams, including the final degree: from 0 to 10 points,
- Motivation for attending the PhD Programme and research project: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

Once the qualifications have been assessed, the Selection committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 30/60 will be considered eligible.

2) Selection procedure for a place with scholarship with topic “Forecasting and Inventory Management: development of a combined optimization model for efficient, resilient, and sustainable component management”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Grades of the exams, including the final degree: from 0 to 10 points,
- Motivation for attending the PhD Programme and research project: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

Once the qualifications have been assessed, the Selection committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 30/60 will be considered eligible.

3) Selection procedure for a place with scholarship with topic “Characterization of the interaction between humans and complex robotic systems within dynamic application contexts”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Grades of the exams, including the final degree: from 0 to 10 points,
- Motivation for attending the PhD Programme and research project: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

Once the qualifications have been assessed, the Selection committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 30/60 will be considered eligible.

4) Selection procedure for a place with scholarship with topic “Nonlinear control systems for complex robotic systems for application in realistic environments, in the presence of human operators”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Grades of the exams, including the final degree: from 0 to 10 points,
- Motivation for attending the PhD Programme and research project: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

Once the qualifications have been assessed, the Selection committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 30/60 will be considered eligible.

5) Selection procedure for a place with scholarship with topic “Control and artificial intelligence methodologies for interaction, motion control, and task planning for heterogeneous robotic systems”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Grades of the exams, including the final degree: from 0 to 10 points,
- Motivation for attending the PhD Programme and research project: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

Once the qualifications have been assessed, the Selection committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 30/60 will be considered eligible.

Areas of the PhD Programme: The PhD Programme in Industrial Innovation Engineering (I3) comprises two different cultural strands, developed in two different curricula, the one relating to Management Engineering and the one relating to Mechatronics and Energy Engineering. All curricula are characterised by a strong innovation orientation.

The Teaching Committee may propose to one or more students enrolled, considered suitable, a programme of study and research in collaboration with the Federal University of Viçosa (Brasile) that will result in the achievement also of the title of Brazilian PhD in "*Computer Science*".

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study.

Further information is available from the PhD Programme website at: www.iii.unimore.it

The Course is inside the Doctoral School in “E4E (Engineering for Economics – Economics for Engineering)”.

8) PhD Programme “Enzo Ferrari” in “MECHANICAL AND VEHICLE ENGINEERING”

Places with scholarship:

- 3 scholarships without specific topic;
- 1 with topic “Development of CFD modelling methodologies for hydrogen production via electrolysis” (with PNRR DM 629/2024 funds, Mission 4, Component 1, Investment 4.1 “Public administration”) for research activities at Municipality of Modena);

- 1 with topic **“Vehicles and urban context: intelligent and connected chassis”** (with PNRR DM 629/2024 funds, Mission 4, Component 1, Investment 4.1 “Public administration”) for research activities at Municipality of Modena);
- 1 with topic **“Development of CFD modelling methodologies for reacting and non-reacting hydrogen flows”** (with PNRR DM 630/2023 funds, Mission 4, Component 2, Investment 3.3) for research activities at R&D CFD Srl;

Places without scholarships: 1

Places reserved:

- 1 funded by a three-year research grant (Title of the research project is: **“Fluid-dynamic and thermofluid-dynamic modeling of high-performance engines with a high innovation content”** – Tutor: Prof. Stefano Fontanesi – Scientific Disciplinary Sector: ING-IND/08 Fluid machinery – Yearly amount of the grant (gross amount) € 19.367,00 – Department of Engineering “Enzo Ferrari”);
- 1 funded by a three-year research grant (Title of the research project: **“Structural and thermostructural modeling of high-performance engines with a high innovation content”** – Tutor: Prof. Matteo Giacomini – Scientific Disciplinary Sector: ING-IND/14 Mechanical design and machine construction – Yearly amount of the grant (gross amount) € 19.367,00 – Department of Engineering “Enzo Ferrari”);
- 1 funded by a three-year research grant (Title of the research project: **“Integrated and robust design methods for parts and foundry equipment to improve aluminum alloy recycling in EU”** – Tutor: Prof. Alberto Vergnano – Scientific Disciplinary Sector: ING-IND/15 Design methods for industrial engineering – yearly amount of the grant (gross amount) € 19.367,00 (with funds from the European Project RecAL – Recycling Technologies for ALuminium - HORIZON-CL4-2023-TWIN-TRANSITION-01-42 – Grant agreement ID: 101138747 – PRJ-0215-RecAL-HORIZONEUROPE_VERGNANO - CUP E93C23002750006);
- 1 funded by a three-year research grant (Title of the research project: **“Towards sustainable and smart supply chains: leveraging machine learning and mathematical models for optimized operations in simulations environments”** – Tutor: Prof. Massimo Bertolini – Scientific Disciplinary Sector: ING-IND/17 Industrial mechanical plants – yearly amount of the grant (gross amount) € 19.367,00 (co-financed with funds from the PRIN2022-PNRR Project "Sustainable Textile - SusTex: exploring and adapting good practices for valorizing wastes in the textile and apparel supply chain" – Project Code 2022X2788M - PRJ-0102-PRIN2022-SusTex-CASTELLANO – CUP: E53D23010440006)

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for four selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate’s preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates are required to submit the following additional documents:

- 1) list of exams taken, inclusive of related credits and grades;
- 2) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), in both cases the final mark for the degree must be clearly indicated, as well as the maximum mark envisaged for this qualification by the University awarding the degree;
- 3) curriculum vitae written in Italian or English indicating higher education qualifications;
- 4) a summary of final thesis in Italian or English, or equivalent – minimum of three and maximum of six pages – organised under the following headings: thesis motivations, research methodology used, results obtained;
- 4) a short essay written in English – no longer than two pages – which illustrates the reasons why the candidate wishes to attend the PhD Programme and describes his/her specific research interests (Statement of Research Interest);
- 5) Certification of English language proficiency (TOEFL, Proficiency, or others);
- 6) A certificate of passing the GRE (Graduate Record Examination) test;
- 7) any recommendation/reference letters (maximum three) written by experts in the field of research of the PhD Programme, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

For selection no. 1, candidates who intend to apply primarily for one (and only one) of the reserved positions covered by a three-year research grant must express their interest by attaching the template “*Annex D2*” of this call for applications to the online admission application.

1) Main selection procedure (for places with scholarship without specific topic, place without scholarship, and places reserved covered by a three-year research grant): based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,
- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

For the research grant titled "**Fluid-dynamic and thermofluid-dynamic modeling of high-performance engines with a high innovation content**" the Commission will issue an eligibility judgment limited to those who have expressed their interest, based on the following evaluable aspects:

- Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-33 in Mechanical engineering (including Vehicle Engineering) or “Laurea specialistica” (under D.M. 509/99) in degree class 36/S in Mechanical engineering; or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Mechanical Engineering, in Industrial Engineering, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure;
- relevance of the curriculum to the research grant topic.

For the research grant titled **“Structural and thermostructural modeling of high-performance engines with a high innovation content”** the Commission will issue an eligibility judgment limited to those who have expressed their interest, based on the following evaluable aspects:

- Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-33 in Mechanical engineering (including Vehicle Engineering) or “Laurea specialistica” (under D.M. 509/99) in degree class 36/S in Mechanical engineering; or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Mechanical Engineering, in Industrial Engineering, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure;
- relevance of the curriculum to the research grant topic.

For the research grant titled **“Integrated and robust design methods for parts and foundry equipment to improve aluminum alloy recycling in EU”** the Commission will issue an eligibility judgment limited to those who have expressed their interest, based on the following evaluable aspects:

- Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree classes LM-33 in Mechanical engineering, LM-53 in Material engineering or “Laurea specialistica” (under D.M. 509/99) in degree classes 36/S in Mechanical engineering, 61/S in Material engineering; or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Mechanical Engineering, in Industrial Engineering, in Material Engineering, in Materials Science) or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.
- relevance of the curriculum to the research grant topic.

For the research grant titled **“Towards sustainable and smart supply chains: leveraging machine learning and mathematical models for optimized operations in simulations environments”** the Commission will issue an eligibility judgment limited to those who have expressed their interest, based on the following evaluable aspects:

- Italian second cycle master's degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-31 in Management engineering or “Laurea specialistica” (under D.M. 509/99) in degree class 34/S in Management engineering; or Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Management engineering, or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.
- relevance of the curriculum to the research grant topic.

The reserved positions covered by the research grant will be awarded to the candidates who, among those who have expressed primary interest, achieve the highest-ranking score.

2) Selection procedure for a place with scholarship with topic “Development of CFD modelling methodologies for hydrogen production via electrolysis”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,

- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

3) Selection procedure for a place with scholarship with topic “Vehicles and urban context: intelligent and connected chassis”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,
- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

4) Selection procedure for a place with scholarship with topic “Development of CFD modelling methodologies for reacting and non-reacting hydrogen flows”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade): from 0 to 25 points,
- Candidate motivation (Statement of Research Interest), from 0 to 5 points;
- Publications, other qualifications and various attestations: from 0 to 5 points,

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 36/60 will be considered eligible.

Areas of the PhD Programme: The course deals with subjects on Mechanical and Vehicle Engineering.

In the present Cycle, the Course is structured around two curricula: the first one is named “Mechanical Engineering”, another is named “Vehicle Engineering”.

These are the educational objectives, common to all PhD students: advanced training in the various areas of mechanical and vehicle engineering; education to the scientific and technological research; development of the attitude to international scientific cooperation; ability to interact with the industrial and economic district. More specifically, the issues considered fall within the specific areas listed below. The particular “Mechanical Engineering” curriculum characterizes the transversal nature of the issues that distinguish the E4E Doctoral School (Engineering for Economics – Economics for Engineering), of which this Course is part.

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study.

Further information is available on the PhD Programme website at: <http://www.phd-enzoferrari.unimore.it/site/home/research.html>

The Course is inside the Doctoral School in “E4E (Engineering for Economics – Economics for Engineering)”.

9) PhD Programme in “LABOUR, DEVELOPMENT AND INNOVATION”

Places with scholarship:

- 7 without specific topic (of which 5 are financed by the University of Modena and Reggio Emilia, 1 by Modena Foundation (“Fondazione di Modena”), 1 by external public and private institutions);
- 1 with topic “**Organisational innovation in the offices of the judiciary: intervention research for the effectiveness, efficiency and quality of work**” (with PNRR DM 629/2024 funds, Mission 4, Component 1, Investment 4.1 “Public Administration”) for research activities at the Court of Modena;
- 1 with topic “**Mapping the sustainability of the dairy supply chain: assessing the environmental, social and economic impact in the GranTerre Group**” with PNRR DM 630/2024 funds, Mission 4, Component 2, Investment 3.3) for research activities at the Caseificio Granterre SpA;
- 1 with topic “**The ageing of the working population: the governance and organisation of labour relations as a condition for promoting the well-being and skills development of workers of all ages**” (funded by the Emilia-Romagna Region under the program “Territory: technological, cultural, economic, and social transition towards sustainability” - PR FSE+ 2021/2027 – CUP E83C24000320002);
- 1 with topic “**Critical factors for sustainable circular value chains in Agrifood industry**” (funded by the Emilia-Romagna Region under the program “Territory: technological, cultural, economic, and social transition towards sustainability” - PR FSE+ 2021/2027 – CUP E83C24000320002);
- 1 with topic “**The evaluation of territorial care reform initiatives within the PNRR Health Mission**” (funded by the Emilia-Romagna Region under the program “Territory: technological, cultural, economic, and social transition towards sustainability” - PR FSE+ 2021/2027 – CUP E83C24000320002);
- 1 with topic “**Worker participation in the inclusive enterprise**” (funded by the Emilia-Romagna Region under the program “Territory: technological, cultural, economic, and social transition towards sustainability” - PR FSE+ 2021/2027 – CUP E83C24000320002);
- 1 with topic “**Social dialogue for a sustainable and inclusive economy: actors, tools and areas of intervention in Emilia-Romagna**” (funded by the Emilia-Romagna Region under the program “Sustainability and Resilience of Society, Communities and Territories” - PR FSE+ 2021/2027 – CUP E93C23001390002).

Places without scholarships: 1

Places reserved:

- 1 position covered by a three-year higher apprenticeship contract, funded by **Job Value S.r.l.** for the performance of work, training, and research activities on the topic of the relationship between flexible work organization methods (e.g., remote work, organizational delayering, agile teams and organizations), performance management systems and practices, and reward policies (monetary and non-monetary incentives), with the following characteristics:
 - Design and development of guidelines for the design, adoption, and development of performance management systems and practices, and reward systems and practices in a context of organizational change, remote work, demand for new skills, diversification of the workforce, through the analysis of relevant literature and empirical mixed-methods research;
 - Quantitative analysis of secondary or primary data, including data available at Job Value S.r.l, relating to a suitably selected sample of HR managers and operators;
 - In-depth analysis of appropriately selected case studies.

The apprentice will be employed at the Company's facility located in Parma (PR), via Gramsci 32/a, with the functional qualification of a level IV employee with the functions of a Data Scientist, full-time, and with the application of the regulatory and economic treatment provided for by the current national collective bargaining agreement (CCNL) for the Tertiary Commerce sector, in which the Company operates.

- **1** position covered by a three-year higher education apprenticeship contract funded by **Kosme Srl** for the performance of work, training, and research activities on the topic of implementation and impact of corporate innovation HUBs with the following characteristics:
- analysis and evaluation of innovative ecosystems, particularly industrial innovation hubs, supporting innovation processes in various supply chain and sector contexts, with the identification of performance indicators for the diffusion of innovation within networks characterized by a plurality of institutional actors;
- analysis of grey literature on concept generation methods in the industrial field, with analysis of the strengths and weaknesses of each method, and the development of a methodology for evaluating the performance of the various methods against a series of key performance indicators;
- analysis and identification of industrial research funds/calls, considering their impact on the innovative performance of companies and the collaborative processes they can activate/consolidate with research centers, universities, and innovative startups.

The apprentice will be employed at the Company's operational headquarters located in Parma (PR), Piazza B. Lunardi, 5/a, with the functional qualification of a B2 level executive employee with the functions equivalent to an R&D researcher, full-time, and with the application of the regulatory and economic treatment provided for by the current national collective bargaining agreement (CCNL) for the Metalworking Industry sector, in which the Company operates.

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for eight selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

For the purposes of assessment, candidates are required to submit as an attachment to the application form, a research project, written in Italian or English, relating to one of the research areas of the two thematic strands into which the course is divided.

Knowledge of English is required.

The project will not be binding for the Board of teachers for the purposes of awarding the title of the thesis.

In addition to the provisions of the art. 3 of this application procedure, candidates are required to submit the following additional documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved;
- 2) CV based on the form in Annex B1 herewith, available on the website dedicated to the PhD Program in Labour, Development and Innovation:
<https://www.phdlavorosviluppoinnovazione.unimore.it/en/homepage-english/>;
- 3) copy of the research project outline, written in Italian or English. This outline should be no more than 15,000 typed characters, including blank spaces, written in accordance with the form in Annex C1 herewith, dedicated to the PhD Program in Labour, Development and Innovation: <https://www.phdlavorosviluppoinnovazione.unimore.it/en/homepage-english/>.
The research project may be freely chosen by the candidate within the research areas of the PhD Programme, as specified on the website dedicated: <https://www.phdlavorosviluppoinnovazione.unimore.it/en/homepage-english/>.
- 4) presentation/reference letter signed by one academic or researcher or expert in the field of the research topics included in the PhD programme, or other professional in the field of the research topics included in the PhD programme, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call;
- 5) any academic publications along with a list of these publications.
- 6) referring to the selection procedure n. 1 indicated below, candidates who wish to apply primarily for the reserved place for the three-year high apprenticeship contract, must fill in and attach to the online application form the facsimile "Annex D1" of this call.

1) Main selection procedure (for places with scholarship without specific topic, place without scholarship and reserved position covered by three-year higher education apprenticeship contract): based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview.

The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

For the reserved place for the three-year high apprenticeship contract funded by **Job Value S.r.l.**, the Commission will assign a judgement of suitability or otherwise, limited to those who have expressed their interest, based on the following assessable aspects:

- Knowledge of economics and econometric models for developing inferential statistics and regression models with specific application to work organisation and reward policies;
- Experience in the joint use of Data Science, visualization and optimization techniques.
- Experience in programming in R, SQL, Power BI and Excel.

- International profile with study or professional experience documented by CV;
- Italian second cycle master's degree "Laurea Magistrale" (under D.M. 270/04) in degree class LM-56 in Economics, or equivalent

The judgement of suitability or otherwise for the reserved place does not affect the marks awarded to the candidates but is useful only for the purposes of the assignment of the reserved place. The above-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

For the reserved place for the three-year high apprenticeship contract funded by **Kosme S.r.l.**, the Commission will assign a judgement of suitability or otherwise, limited to those who have expressed their interest, based on the following assessable aspects:

- Basic knowledge on the topic of innovative ecosystems;
- Experience in using data analysis and optimization tools and techniques for data management;
- Basic knowledge in Python programming;
- Italian second cycle master's degree "Laurea Magistrale" (under D.M. 270/04) in degree classes LM-56 in Economics, LM-77 Management, or equivalent.
- Master's thesis relevant to the research topics;
- CV highlighting previous work experience, internships or apprenticeships.

The judgement of suitability or otherwise for the reserved place does not affect the marks awarded to the candidates but is useful only for the purposes of the assignment of the reserved place. The above-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

2) Selection procedure for a place with scholarship with topic "Organisational innovation in the offices of the judiciary: intervention research for the effectiveness, efficiency and quality of work": based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview.

The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

3) Selection procedure for a place with scholarship with topic "Mapping the sustainability of the dairy supply chain: assessing the environmental, social and

economic impact in the GranTerre Group”: based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview.

The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

4) Selection procedure for a place with scholarship with topic “The ageing of the working population: the governance and organisation of labour relations as a condition for promoting the well-being and skills development of workers of all ages”: based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview.

The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

5) Selection procedure for a place with scholarship with topic “Critical factors for sustainable circular value chains in Agrifood industry”: based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,

- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview. The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

6) Selection procedure for a place with scholarship with topic “The evaluation of territorial care reform initiatives within the PNRR Health Mission”: based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview. The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

7) Selection procedure for a place with scholarship with topic “Worker participation in the inclusive enterprise”: based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview. The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

8) Selection procedure for a place with scholarship with topic “Social dialogue for a sustainable and inclusive economy: actors, tools and areas of intervention in Emilia-Romagna”: based on academic and research record and interview

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Degree final mark, if already achieved, and grades reported in exams: from 0 to 16 points
- Publications: from 0 to 3 points,
- Research project: from 0 to 30 points,
- Postgraduate and/or professional teaching and training in the research field, as included in the CV: from 0 to 5 points,
- Foreign language skills in the CV: from 0 to 6 points.

Candidates awarded at least 35/60 in the assessment of academic and research record will be admitted to the interview.

The interview will focus on the research methodology and research objectives, as indicated in the project, as well as the candidate's motivation.

A pass is achieved where candidates are awarded a score of 40/60 or above in the interview. The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

Areas of the PhD Programme: The Course responds to the need to train highly qualified professionals equipped with analytical, intervention and design tools to interpret and govern the processes of transformation and development in the world of labour, in companies (industrial, service, public), institutions and territories in the perspective of sustainable and inclusive innovation. Particular attention is devoted to understanding the dynamics of the ‘great transitions’, technological and ecological, of which the transformative repercussions on the regulatory, economic-financial and organisational-managerial side are analysed, also in the intertwining with the issues of inclusion and sustainability in the world of work and business, environmental, economic-financial and social.

The Course adopts a multidisciplinary approach to research and training that balances the use of quantitative and qualitative research methodologies, combined with the development of solid theoretical foundations drawn from multiple disciplinary fields, such as legal sciences, economic and statistical sciences, psychological sciences, and the adoption of a comparative and international analysis perspective.

The Course is divided into 2 thematic strands: Labour, Institutions, Society and Development, Innovation and Sustainability.

Both thematic strands the research areas found at the dedicated web address: <https://www.phdlavorosviluppoinnovazione.unimore.it/en/research-areas/>

Official languages: Italian and English. Please refer to the educational programme of the course for details on the languages used in each course: <https://www.phdlavorosviluppoinnovazione.unimore.it/en/homepage-english/>

Both curricula and research areas can be found in the web site:
<https://www.phdlavorosviluppoinnovazione.unimore.it/en/homepage-english/>

EXAM SCHEDULE – MAIN SELECTION

In-person interview: August 26th 2024, 10:00 a.m. Interviews could continue on August 27th, 2024, 10:00 a.m., should there be a high number of candidates.

The examination will take place in Lecture Room of the Marco Biagi Foundation, Largo Marco Biagi 10, Modena.

Interview via Microsoft Teams (allowed only for candidates residing abroad): August 26th 2024, 9:00 a.m. until 10:00 a.m. The examination will take place in Lecture Room of the Marco Biagi Foundation, Largo Marco Biagi 10, Modena.

For information on how to conduct the interview via Microsoft Teams, see Article 5 of this Call.

EXAM SCHEDULE – SELECTION PROCEDURES 2, 3, 4, 5, 6, 7, 8

In-person interview: August 27th, 2024, 12:00 a.m.

The examination will take place in Lecture Room of the Marco Biagi Foundation, Largo Marco Biagi 10, Modena.

Interview via Microsoft Teams (allowed only for candidates residing abroad): August 27th 2024, 9:00 a.m. until 10:00 a.m.

The examination will take place in Lecture Room of the Marco Biagi Foundation, Largo Marco Biagi 10, Modena.

For information on how to conduct the interview via Microsoft Teams, see Article 5 of this Call.

10) PhD Programme in “MODELS AND METHODS FOR MATERIAL AND ENVIRONMENTAL SCIENCES”

Places with scholarship:

- 4 without specific topic;
- 1 with topic: “**Earthquake-induced Liquefaction Phenomena (Co-seismic effects) and experimental Blast Test**” (financed by the Department of Chemical and Geological Sciences with INGV and UNICH funds);
- 1 with topic: “**Artificial groundwater recharge in the Emilia Romagna Region: identification of suitable sites, actions and effectiveness evaluation in a climate-change scenario**” (funded by the Emilia-Romagna Region as part of the "Territory: Technological, Cultural, Economic, and Social Transition towards Sustainability" program - PR FSE+ 2021/2027 – CUP E83C24000320002);
- 1 with topic: “**Modelling catalytic decarbonization strategies using molecular simulation and machine learning techniques**” (with PNRR DM 630/2023 funds, Mission 4, Component 2, Investment 3.3 for research activities at Casale S.A.);
- 1 with topic: “**Design of new current collectors for quasi solid-state anode less batteries**”;
- 1 with topic: “**Innovative and sustainable materials for cross-sector applications in building constructions: preparation, synthesis, characterization and industrial formulations**”

Places without scholarships: 1

Places reserved:

- **1** covered by a three-year research grant (Title of the research project: **“Natural Traces in forensic investigations – how pollen imprints can solve crime”**). The research grant will be activated as part of the international project “Natural Traces in forensic investigations – how the analysis of non-human evidence can solve crime – NATURAL TRACES – GA 101120165 (Horizon-MSCA-2022-DN-01)” – Tutor: Prof. Anna Maria Mercuri – disciplinary scientific sector BIO/02 Systematic Botany - annual amount of the research grant: € 38.052,84 (gross of withholding taxes payable by the candidate and including board, lodging and return travel).

If the candidate has family obligations at the deadline of the call (marriage, cohabitation if legally recognised, children), the annual amount of the research grant is € 44.473,56.

The research fellow has the obligation to register in the INPS separate management.

The candidate will participate in the project network by contributing to the development of palynological knowledge required for forensic interpretation, as well as developing new techniques. It will analyse pollen and palynomorphs from different substrates (air, sediment and other surface samples, vehicles, clothing), linking data in particular to insects as pollen vectors and eDNA. Different types of pollen extraction will be applied to different substrates. The reference pollen collection (UNIMORE) will be the main reference tool and will be improved with new records. Airborne pollen grain calendars from aerobiology (long series), moss data (e.g. from urban contexts) and soil surface samples (big data such as the EMPD-European Modern Pollen Database) will be used as reference data to describe contexts and sites based on known pollen spectra of soil sediments.

The Course provides for seven selection procedures depending on the type of positions available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

1) Main selection procedure (for places with scholarship without specific topic and place without scholarship);

2) Selection procedure for a place with scholarship with topic “Earthquake-induced Liquefaction Phenomena (Co-seismic effects) and experimental Blast Test”;

3) Selection procedure for a place with scholarship with topic “Artificial groundwater recharge in the Emilia Romagna Region: identification of suitable sites, actions and effectiveness evaluation in a climate-change scenario”;

4) Selection procedure for a place with scholarship with topic “Modelling catalytic decarbonization strategies using molecular simulation and machine learning techniques”;

5) Selection procedure for a place with scholarship with topic “Design of new current collectors for quasi solid-state anode less batteries”;

6) Selection procedure for a place with scholarship with topic “Innovative and sustainable materials for cross-sector applications in building constructions: preparation, synthesis, characterization and industrial formulations”;

7) Selection procedure for a place covered by a three-year research grant on the topic “Natural Traces in forensic investigations – how pollen imprints can solve crime” as part of the international project “Natural Traces in forensic investigations – how the analysis of non-human evidence can solve crime – NATURAL TRACES – GA 101120165 (Horizon-MSCA-2022-DN-01)”.

Admission requirements:

- **Main selection procedure no. 1 (for places with scholarship without specific topic and place without scholarship):** 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

- **Selection procedures no. 2, 3, 4, 5, 6 for the five scholarships with topic:** 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

- **Selection procedure no. 7 for a place covered by a three-year research grant on the topic "Natural Traces in forensic investigations – how pollen imprints can solve crime"** as part of the international project "Natural Traces in forensic investigations – how the analysis of non-human evidence can solve crime – NATURAL TRACES – GA 101120165 (Horizon-MSCA-2022-DN-01)": 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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure. **The qualification must be held by October 31st, 2024. The eligibility criteria set out in the MSC-DN programme and visible on the page also apply:**

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions_horizon-2023-2024_en.pdf

At the date of the conclusion of the research grant contract, the early-stage researcher (ESR) must be within the fourth year of his/her research career (calculated as full-time equivalent) and must not have already obtained a doctoral degree. At the date of the conclusion of the contract of the research grant, the researcher must not have resided or carried out his/her main activity (work, studies, etc.) in the country of the host organisation (in Italy) for more than 12 months in the immediately preceding 3 years.

Selection procedures:

- **Main selection procedure no. 1 and selection procedures no. 2, 3, 4, 5, 6 for the five scholarships with topic:**

In addition to the provisions of the art. 3 of this application procedure, candidates must submit the following additional documents:

1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved; students who have not yet completed the final degree examination, must submit a list of exams taken and grades achieved;

2) curriculum vitae of the candidate's research and teaching activities written in Italian or English indicating university degree qualifications obtained. The academic and research records have to be certified /self-certified;

3) a summary of final thesis in Italian or English, or equivalent – minimum of two and maximum of three pages – organised under the following headings: statement of purpose, research methodology used, results obtained;

- 4) Statement of Research Interest: a short text, of no more than two pages and written in English, consisting of two sections:
- a) Motivation, which illustrates the candidate's motivations for attending the Course (max 1/2 page);
 - b) the description of a hypothetical research project based on one of the topics of the doctorate, listed on the website: <http://www.m3es.unimore.it/site/home/research/phd-thesis-proposals.html>, which reports the theses proposed for the XL cycle, which the candidate would like to carry out, based to his specific research interests;
- 5) any certification attesting to knowledge of the English language (TOEFL, Proficiency or other).

- Selection procedure no. 7 for a place covered by a three-year research grant on the topic “Natural Traces in forensic investigations – how pollen imprints can solve crime” as part of the international project “Natural Traces in forensic investigations – how the analysis of non-human evidence can solve crime – NATURAL TRACES – GA 101120165 (Horizon-MSCA-2022-DN-01)”

- 1a) self-certification of the degree (in the case of a degree awarded in Italy) or degree certificate (in the case of a degree awarded abroad) showing the list of examinations taken and marks awarded. In the case of candidates who have not yet taken their final degree examination, the list of examinations taken and grades obtained must be presented;
 - 1b) curriculum vitae of scientific and teaching activities written in English, with an indication of the university level qualifications held;
 - 1c) an abstract in English of the Master's thesis, or equivalent, consisting of a minimum of three to a maximum of six pages and comprising the following points: motivations and context of the research, methods of investigation, results obtained;
 - 1d) certification of knowledge of the English language (TOEFL, Proficiency or others), or certificate of passing the GRE (Graduate Record Examination) test;
- 2) letters of presentation/reference (from one to three) drafted by experts in the fields of research of the Course, indicating the public or private structure at which these experts work, which must be produced directly by the referees and sent exclusively according to the procedure indicated in Article 3 of the notice;
- 3) a short text, of one/two pages and written in English, illustrating the candidate's specific research interests and objectives as well as his/her motivation for attending the PhD course (Statement of Research Interest).

Evaluation methods:

- Main selection procedure no. 1 and selection procedures no. 2, 3, 4, 5, 6 for the five scholarships with topic: based on academic and research record and interview

The Selection committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Academic and research record: from 0 to 30 points:

- study curriculum and relevance of exams taken and the subject of the Master thesis and relevance to the area of study of the PhD programme: from 0 to 15 points,
- publications, conference papers, certifications: from 0 to 5 points
- other qualifications (certificate of knowledge of English, letters of reference, and descriptions of specific research interests (Statement of Research Interest), periods of study abroad): from 0 to 10 points.

- Interview: from 0 to 30 points

It is necessary to present a valid ID card or a passport.

The interview will focus on the description of a hypothetical research project chosen by the candidate. The evaluation will focus on the scientific soundness of the project, feasibility and appropriateness with the PhD course. Part of the interview will be carried out in English. Candidates obtaining a minimum of 20 points will be allowed to interview. The list of candidates admitted to the interview, and any variations in the methods and terms of the selection procedure, will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>. Candidates may opt to have their interview in English. Once the qualifications and the interview have been assessed, the Committee will compile for each selection a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 40/60 will be considered eligible.

- Selection procedure no. 7 for a place covered by a three-year research grant on the topic “Natural Traces in forensic investigations – how pollen imprints can solve crime” as part of the international project “Natural Traces in forensic investigations – how the analysis of non-human evidence can solve crime – NATURAL TRACES – GA 101120165 (Horizon-MSCA-2022-DN-01)”

The Selection committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

Degree mark: from 0 to 12 points,

Master's thesis summary: 0 to 12 points,

Publications: 0 to 8 points,

Research statement: 0 to 15 points,

Research stays abroad: 0 to 5 points,

Letters of presentation: 0 to 3 points,

Other qualifications (certification of proficiency in English, certification of computer courses, scholarships, awards, master's degree, internships and any other): 0 to 5 points.

Candidates with a minimum score of 30/60 are admitted to the interview.

The list of candidates admitted to the interview, and any variations in the methods and terms of the selection procedure, will be announced publicly in a date between August 19th and 23th, 2024 only on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

Candidates may opt to have their interview in English.

The interview will focus on the candidates' past research experience, aspects of fundamental knowledge acquired in the course of their studies, together with an assessment of their personal motivation to undertake the PhD course in order to participate in the Natural Traces project. Knowledge of the topics required for the project itself may also be assessed. For the assessment of the interview, the selection board may award a score of up to 40 points. The interview is considered successful with a score of no less than 30/40.

An in-person or Microsoft Teams interview is allowed.

For information on how to conduct the online interview, see art. 5 of this call.

A valid identity document or passport must be presented

Once the qualifications and the interview have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded. Candidates obtaining a minimum score of 30/40 will be considered eligible.

Areas of the PhD Programme: The Course aims to train experts in advanced research methodologies in environmental and material sciences, in respect of the research fields of the teaching staff (<http://www.m3es.unimore.it/site/home.html>). The research doctor will be able to operate in one or more of the following fields: processes regulating the transfer of

elements and compounds from geosphere to hydro- and biosphere forecasting; prevention and mitigation of natural risks; identification and optimal use of resources; study, conservation and appraisal of cultural assets; environmental impact of human activities; chemical sustainable strategies; preparation and characterization of materials with innovative functional properties; devices and methodologies for electrochemical sensing suitable to work in real systems; computational multi-scale strategies; chemometrics, multivariate analysis of signals and images and themes related to Big Data and 'Industry 4.0'.

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study.

Further information is available on the PhD Programme website at:

<http://www.m3es.unimore.it/site/home/research/phd-thesis-proposals.html> which contains the theses proposed for cycle XL.

EXAM SCHEDULE – MAIN SELECTION

In-person interview: August 26th 2024, 9:30 a.m. Interviews could continue on August 27th 2024, 9:30 a.m., should there be a high number of candidates.

The examination will take place in the room Uint5 at the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

Interview via Microsoft Teams (allowed for each candidate, regardless of residence):

August 26th 2024, 9:30 a.m, Interviews could continue on August 27th 2024, 9:30 a.m., should there be a high number of candidates.

The examination will take place in the room Uint5 at the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

For information on how to conduct the interview via Microsoft Teams, see Article 5 of this Call.

EXAM SCHEDULE – SELECTION PROCEDURES 2, 3, 4, 5, 6, 7

In-person interview: August 26th 2024, 9:30 a.m. Interviews could continue on August 27th 2024, 9:30 a.m., should there be a high number of candidates.

The examination will take place in the room Uint5 at the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

Interview via Microsoft Teams (allowed for each candidate, regardless of residence):

August 26th 2024, 9:30 a.m, Interviews could continue on August 27th 2024, 9:30 a.m., should there be a high number of candidates.

The examination will take place in the room Uint5 at the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

For information on how to conduct the interview via Microsoft Teams, see Article 5 of this Call.

11) PhD Programme in “MOLECULAR AND REGENERATIVE MEDICINE”

Places with scholarship:

- 3 without specific topic;

Places without scholarship: 1

Admission requirements: Italian second cycle master's degree (“laurea magistrale”, under D.M. 270/04) in the following disciplines: LM-6 Biology, LM-8 Industrial biotechnology, LM-9 Medical, veterinary and pharmaceutical biotechnology, LM-13 Pharmacy and industrial pharmacy, LM-21 Biomedical Engineering, LM-41 Medicine and surgery, LM-54 Chemical

Sciences, or equivalent Italian second cycle master's degree ("laurea specialistica", under D.M. 509/99) in one of the following disciplines: 6/S Biology, 8/S Industrial biotechnology, 9/S Medical, veterinary and pharmaceutical biotechnology, 14/S Pharmacy and industrial pharmacy, 26/S Biomedical Engineering, 46/S Medicine and surgery, 62/S Chemical Sciences; Italian degree obtained prior to D.M. 509/99 (the previous Italian regulations) in Biological Sciences, in Agro-industrial Biotechnology, in Biotechnology (curriculum Industrial Biotechnology or Pharmaceutical Biotechnology or Medical Biotechnology or Veterinary Biotechnology), in Chemistry and Pharmaceutical Technologies or Pharmaceutical Chemistry and Technology, in Pharmacy, in Medicine and Surgery, in Biomedical Engineering, in Medical Engineering, in Chemistry or Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods: based on academic and research record and interview

The selection is intended to verify the candidate's preparation and aptitude for conducting research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following additional documents:

- 1) self-certification of the master/specialist degree and first degree or Italian degree obtained prior to D.M. 509/99 (in case of degree obtained in Italy) or certificate of first and second degree (in the case of degree obtained Abroad), showing a list of exams taken and grades achieved;
- 2) curriculum vitae written in English containing their scientific experience;
- 3) a summary in Italian or English of the thesis, or equivalent – no longer than two pages -, and divided into the following points: purpose of the thesis, methods of investigation, results obtained;
- 4) a short essay, no longer than two pages, written in English that illustrates the reasons why the candidate wishes to attend the PhD Programme in "Molecular and Regenerative Medicine" and describes his/her specific research interests (Statement of Research Interest);
- 5) certification attesting to knowledge of the English language (FIRST, TOEFL, Proficiency or other);
- 6) GRE (Graduate Record Examination) certificates;
- 7) One recommendation/reference letter written by experts in the fields of research of the PhD Programme, indicating the public or private institution/organization he/she is affiliated with, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- degree mark, if already obtained, or marks obtained in the exams: from 0 to 30 points,
- curriculum and professional experience: from 0 to 10 points,
- publications: from 0 to 5 points,
- Statement of Research Interest: from 0 to 15 points.

Candidates awarded at least 40/60 in the assessment of academic and research record will be admitted to the interview.

The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced in a date between September 6th and 12th, 2024 on the University website at <https://www.bandi.unimore.it/StuLau-GradSdott.html>. Candidates may opt to have their interview in English.

The interview consists of:

- an evaluation of basic knowledge of cell biology, molecular biology, chemistry, biochemistry, genetics, general pathology,
- a discussion on the research activity previously carried out,
- a discussion on the research interests expressed in the Statement of Research Interest,
- verification of knowledge of the English language.

Candidates obtaining a minimum score of 40/60 on the interview will be considered eligible.

Areas of the PhD Programme: The doctoral course includes two training courses: the curriculum in Molecular and Regenerative Medicine and the curriculum in Nanotechnologies and Modeling for Industrial Biomedical Applications. The courses include, in addition to research and laboratory activities, lectures and seminars on molecular and cellular mechanisms of human diseases, mechanisms of cell differentiation and gene therapy, structural biology, computational biology, biomaterials.

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study

Further information is available from the PhD Programme website at:

<http://www.mrm.unimore.it/site/home.html>

EXAM SCHEDULE – (for all the selective procedures)

Interview via Microsoft Teams (allowed for each candidate, regardless of residence):

September 23rd, 2024, 9:00 am. In the event of a large number of candidates, the interview will continue on September 24th, 2024, 9:00 am

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

12) PhD Programme in “NEUROSCIENCES”

Places with scholarship:

- 4 without specific topic;

- 1 with topic **“Neuroscience and social inclusion of young adults with onset psychosis in the care of Mental Health Services. A biopsychosocial approach”** (with PNRR DM 630/2024, Mission 4, Component 2, Investment 3.3 for research activities at Azienda Unità Sanitaria Locale di Reggio Emilia – IRCCS);

Places without scholarship: 2

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods: based on academic and research record, written test and interview

The course includes two selection procedures depending on the type of places available. Candidates interested in several selective procedures must submit the application for admission and pay the relative contribution of € 25.00 for each of the procedures in which they intend to participate. The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

1) Main selection procedure (for places covered by scholarships without a specific topic and for places without scholarships)

2) Selection procedure for a place with scholarship on the topic “Neuroscience and social inclusion of young adults with onset psychosis in the care of Mental Health Services. A biopsychosocial approach”

The selections are made up of 3 phases: evaluation of qualifications, written examination and oral examination. The evaluation of qualifications and the written examination are carried out in the same way for all candidates. The oral examination will be carried out in a differentiated manner depending on the selection(s) in which the candidate has chosen to participate.

Evaluation of qualification (60 points):

Without prejudice to the provisions of art. 3 of this announcement, for the purpose of evaluating qualifications, candidates may submit the following additional documents:

- 1) degree score or document certifying the list of exams and the scores obtained, up to a maximum of 15 points;
- 2) thesis, up to a maximum of 10 points;
- 3) publications, up to a maximum of 10 points;
- 4) synthesis of the research project (3 pages), up to a maximum of 15 points;
- 5) other qualifications (including specialties and experiences post-graduate), up to a maximum of 10 points.

Written examination (60 points):

The Written Exam is a written report on any of these topics belonging to one of the following groups of topics:

Group 1

- 1) The genesis of nerve impulses: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.
- 2) The synapse: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.
- 3) The reflexes: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.
- 4) Molecular and cellular basis of signal transduction: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.

- 5) The motor system: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.
- 6) The visual system: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.
- 7) The somatosensory system: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.
- 8) The systems that regulate alertness, consciousness and sleep: introduce the topic in a general way and describe in detail one or more specific topics for which s/he has more in-depth expertise on the basis of her training or research activity.

Group 2

- 9) Social cognition: introduce the topic in a general way and explain in detail a research topic in the field of social cognition;
- 10) Visualization techniques of mental activities: introduce the topic in a general way and explain in detail a visualization technique;
- 11) The relationship between perception and action: introduce the topic in a general way and explain in detail a research topic in the field of the relationship between perception and action;
- 12) The emotional experience: introduce the topic in a general way and explain in detail a research topic in the field of emotional experience;
- 13) Attention and executive functions: introduce the topic in a general way and explain in detail a research topic in the field of attention and executive functions;
- 14) Language: introduce the topic in a general way and explain in detail a research topic in the field of the mental mechanisms involved in linguistic processing.
- 15) The mind-brain relationship: describe from a historical point of view the developments of the relationship between mind and brain up to the present day, possibly also using the knowledge deriving from clinical neuropsychology.
- 16) Inter-individual differences and personality traits: introduce the topic in a general way and explain in detail a research topic in the field of the mental mechanisms involved in linguistic processing.

Group 3

- 17) Describe genetic and epigenetic factors in childhood trauma and their implications for adult psychopathology
- 18) Describe the bio-psycho-social paradigm, its scientific foundations and the impact in contemporary clinical practice
- 19) Describe medical-psychiatric comorbidity from a psycho-neuro-endocrine-immunological perspective;
- 20) Describe the neurobiological bases of stress
- 21) Describe genetic and environmental factors underpinning the onset of neurodevelopmental disorders in early childhood
- 22) Describe the neural and cognitive mechanisms involved in Autism Spectrum Disorder and ADHD
- 23) Describe the psychological and neurobiological mechanisms underlying change during psychotherapy and/or psychiatric rehabilitation
- 24) Describe the psychological and neurobiological characteristics of adolescence

At the beginning of the examination (which will last a maximum of one hour) two topics for each Group of topics among those listed above are randomly chosen, one of which can be chosen by the candidate for her/his written report.

Oral examination (80 points):

The oral examination in the presence of the candidate will focus on the report of the Written Exam, the brief description of the candidate of his research project and the discussion of the candidate's motivations for attending the PhD in Neuroscience and its specific research interests. If the candidate has chosen to participate in more than one selection, s/he will be examined more times on the specific topics of each selection procedure. It will also check the verification of the English language and any foreign language optional declared by the applicant at the time of submitting the application.

Once the evaluation of qualifications and the written and oral examinations have been assessed, the Committee will compile two merit-based rankings respectively for the four selections, based on the scores assigned to the candidates participating in the 4 selection procedures. Candidates obtaining a minimum score of 100/200 will be considered eligible.

Programme topics: The training and research activities will be divided into the following three macro-areas, including also cross-cutting topics, methodologies and technologies:

- *Basic and computational neuroscience:* Study of the central and peripheral nervous system in humans through the following techniques: neuroanatomy, neuropharmacology, molecular and cellular biology, electrophysiology, behavioral, neurocomputational and brain imaging. Laboratory animals (rodents), and cellular models including induced pluripotent stem cells and organoids are also used.

- *Clinical neuroscience:* Study of clinical research topics in the field of neurological and psychiatric disorders across the lifespan; particular relevance will be given to genetic and epigenetic risk factors using specific experimental approaches, as well as to broad-spectrum omics methods.

- *Cognitive neuroscience and psychology:* Study of human cognitive functions through the evaluation of mental operations and their neural substrate, using behavioral and testistic methodologies, as well as psychophysiological and neuroimaging techniques, on healthy subjects or patients with cognitive/affective disorders.

Official course language: English. However, all the PhD students are encouraged to learn the Italian language during the course of study

Further information is available from the PhD Programme website at: <http://www.dottorato-neuroscienze.unimore.it>

EXAM SCHEDULE

Written examination: August 28th, 2024, 9:00 a.m. at the Physiology Classroom H1.1 – 1st floor, Department of Biomedical, Metabolic and Neuroscience Sciences, Via Giuseppe Campi 287, Modena.

Interview in presence: August 28th, 2024, 2:00 p.m., at the Physiology Classroom H1.1 – 1st floor, Department of Biomedical, Metabolic and Neuroscience Sciences, Via Giuseppe Campi 287, Modena. Interviews could eventually continue on August 29th 2024, 9:00 a.m., at the Physiology Classroom H1.1 – 1st floor, Department of Biomedical, Metabolic and Neuroscience Sciences, Via Giuseppe Campi 287, Modena, should there be a high number of candidates.

13) PhD Programme in “PHYSICS AND NANO SCIENCES”

Places with scholarship:

- 3 without specific topic;
- 1 with topic “**Development of (photo-)electrochemical devices for the conversion and storage of energy: batteries, cells combustion and electrolyzers. Techniques for the analysis of elementary mechanisms during their functioning**” (financed by Regione Emilia Romagna in implementation of the programme "Territory: technological, cultural, economic and social transition towards sustainability" - ESF+ PR 2021/2027 - CUP E83C23000510002);
- 1 with topic “**Investigation of reversal processes in thermoset polymers**” (with PNRR DM 630/2024 funds Mission 4, Component 2, Investment 3.3, for research activities at Acell Italy S.r.l.);
- 2 with topic “**Computational Materials Science for Quantum Technologies**” (one of which is co-funded with PRIN2022PNRR funds - project P2022KSTSR Opto-mechanical effects in spin-defects for quantum technologies – CUP: E53D23018400001 - D.D. no. 1381 of 01/09/2023);
- 1 with topic “**Low temperature experiments for qubit encoding with Molecular Spins**”.

Places without scholarship: 1

Places reserved:

- 2 covered by three-year research grants (Research topics: “**Machine learning for simulation in quantum materials discovery**” and “**Quantum algorithms, including quantum machine learning, for the prediction of materials phase equilibria and molecular energies**”. The research grants will be activated within the framework of the international project "Machine Learning for Quantum – ML4Q – GA 101120240 (HORIZON Europe TMA-MSCA-DN)" – Supervisor: Prof. Guido Goldoni – Scientific disciplinary sector FIS/03 Physics of Matter - Annual amount of the research grant: € 38,052.84 (gross, including board, lodging, and round-trip travel).

If the candidate has family obligations at the deadline of the call (marriage, cohabitation if legally recognized, children), the annual amount of the research grant is € 44.473,56.

The research fellow has the obligation to register in the INPS separate management.

Eligibility criteria under the MSC-DN program apply and can be found at: <https://mlq.quantumexcellence.org/applications/>.

At the date of the conclusion of the research grant contract, the early-stage researcher (ESR) must be within the fourth year of his/her research career (calculated as full-time equivalent) and must not have already obtained a doctoral degree. At the date of the conclusion of the contract of the research grant, the researcher must not have resided or carried out his/her main activity (work, studies, etc.) in the country of the host organisation (in Italy) for more than 12 months in the immediately preceding 3 years.

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course opens six selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course (<https://www.nano-phdschool.unimore.it/site/home/topics.html>).

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following additional documents:

1a) Self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved; students who have not yet completed the final degree examination, must submit a list of exams taken and grades achieved;

1b) List of research and teaching activities (curriculum vitae) indicating all the qualifications obtained. This can be written either in Italian or in English;

1c) A summary of the thesis/diploma work, from a minimum of three to a maximum of six pages, with the following headings: state of the art and interests of the topic, research methodology and results. This summary can be written either in Italian or in English;

1d) certificates of knowledge of English language (TOEFL, Proficiency or others); certificate of Graduate Record Examination (GRE);

2) Letters of presentation (up to three) written by experts in the fields of this PhD course, indicating the public or private institution in which they serve as experts, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call;

3) Statement of Research Interest: a short text, of no more than two pages and written in English, consisting of two parts:

- **Motivation**, which illustrates the candidate's reasons for attending the Course (max 1/2 page)

- Description of a short research project (**Statement of Research Interest**)- divided into introduction, state of the art, and possible lines of development - based on:

for selection 1): the research topics proposed for the XL cycle and listed on the website: <http://www.nano-phdschool.unimore.it/site/home/topics.html> with reference to the page: "themes proposed for the XL Edition (2024)";

for selection 2): the research topic "*Development of (photo-)electrochemical devices for the conversion and storage of energy: batteries, cells combustion and electrolyzers. Techniques for the analysis of elementary mechanisms during their functioning*";

for selection 3): the research topic "*Investigation of reversal processes in thermoset polymers*";

for selection 4): the research topic "*Computational Materials Science for Quantum Technologies*";

for selection 5): the research topic "*Low temperature experiments for qubit encoding with Molecular Spins*".

for selection 6): the research topics:

- "*Machine learning for simulation in quantum materials discovery*";

- "*Quantum algorithms, including quantum machine learning, for the prediction of materials phase equilibria and molecular energies*".

Further information on the topics indicated for every selection can be found at the link: <http://www.nano-phdschool.unimore.it/site/home/topics.html> with reference to the page: "themes proposed for the XL Edition (2024)"

1) Main Selection Procedure (for places covered by scholarships without a specific topic and the place without scholarship): based on academic and research records and interview.

2) Selection procedure for a place with scholarship on the topic “Development of (photo-)electrochemical devices for the conversion and storage of energy: batteries, cells combustion and electrolyzers. Techniques for the analysis of elementary mechanisms during their functioning”: based on academic and research records and interview

3) Selection procedure for a place with scholarship on the topic “Investigation of reversal processes in thermoset polymers”: based on academic and research records and interview

4) Selection procedure for two places with scholarship on the topic “Computational Materials Science for Quantum Technologies”: based on academic and research records and interview

5) Selection procedure for a place with scholarship on the topic “Low temperature experiments for qubit encoding with Molecular Spins”: based on academic and research records and interview

6) Selection procedure for two places reserved covered by three-year research grants on the topics: “Machine learning for simulation in quantum materials discovery” and “Quantum algorithms, including quantum machine learning, for the prediction of materials phase equilibria and molecular energies” within the framework of the international project "Machine Learning for Quantum – ML4Q – GA 101120240 (HORIZON Europe TMA-MSCA-DN): **based on academic and research records and interview**

For the evaluation, the Board of Examiners, based on a comparative assessment of the documents submitted by the candidates, assigns a score up to a maximum of 60 points, according to the following criteria:

1) Previous experience of the candidate, up to a maximum of 30 points awarded considering:

- Curriculum studiorum, indicating the examinations passed during the previous courses (evaluation criteria: score of the final degree –if already achieved-, list of exams taken and grades received, degree of relevance of previous studies to this PhD course).

- List of activities (experiences and activities of internship, job opportunities, scholarships, grants, publications, training periods abroad, participation to Summer Schools and conferences).

- Summary of the thesis/diploma work-completed or in progress- (evaluation criteria: motivations and state of the art of the field, methods of investigation, results obtained).

- Knowledge of the English Language (documented by exams and certificates).

2) Independent evaluation of the potentialities of the candidate, up to a maximum of 10 points. To evaluate this, the following will be considered: one to three letters of recommendation from experts who have had the opportunity to assess the candidate in research. Prizes and awards given to the candidate by external commissions. The letters of recommendation must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

3) Evaluation of the Statement of Research Interest: The commission, based on this text, will evaluate the technical and scientific motivations and specific research interests of the

candidate as well as their potentialities for the development of the PhD programme. Up to a maximum of 20 points.

After the assessment, the Commission shall prepare a ranking list based on the scores assigned to each candidate. Candidates who obtain a score lower than 40/60 will not be admitted to the interview and not considered eligible for admission to the course.

The list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure will be announced publicly in a date between August 19th and 23th, 2024 on the University website at <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

Subjects to be covered by the interview

The interview is intended to clarify and verify the candidate's past experience as set out in the documentation submitted by the candidate, and his/her scientific interests and possible lines of career development within the possibilities offered by the PhD Course, as expressed by the candidate in the Statement of Research Interest.

Maximum score for the interview is 40 points.

Candidates who obtain an overall mark of less than 60/100 will not be considered eligible for admission to the course.

Areas of the PhD Programme: Main topics include: quantum sciences and technologies; nanofabrication, microscopy and spectroscopy; nano-systems for energy conversion; nanostructured, low-dimensional, graphene and 2D systems; functional surfaces and molecules; physics and chemistry of bio-nano systems; nano-scale tribology; advanced computational theory and methods for materials and nanosystems; fields and strings theory. Further information is available from the PhD-PNS website at: <https://www.nano-phdschool.unimore.it/site/home/topics.html>

The academic board may propose to one or more of the enrolled students, deemed suitable, a study and research pathway in collaboration with the University of São Paulo (Brazil), which will also lead to the awarding of a Brazilian PhD degree in Physics.

Official course language: English. However, foreign PhD students are encouraged to learn the Italian language during the PhD Course.

EXAM SCHEDULE

Selection 1 – Main Selection:

In-person interview, in room L1.3 Department of Physics, via G. Campi 213/A, Modena, **or via Microsoft Teams platform for candidates who explicitly request it:** August 26th, 2024, 9.00 am. Interviews could continue on August 27th, 2024 9:00 am, should there be a high number of candidates.

Selection 2, 3, 4, 5:

In-person interview, in room L1.3 Department of Physics, via G. Campi 213/A, Modena, **or via Microsoft Teams platform for candidates who explicitly request it:** August 26th, 2024, 2.p.m. Interviews could continue on August 27th, 2024 2:00 p.m, should there be a high number of candidates.

Selection 6:

In-person interview, in room L1.3 Department of Physics, via G. Campi 213/A, Modena, **or via Microsoft Teams platform for candidates who explicitly request it:** August 27th,

2024, 4.00 p.m. Interviews could continue on August 28th, 2024 4:00 p.m., should there be a high number of candidates.

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.

14) PhD Programme in “REGGIO CHILDHOOD STUDIES” (Main venue: Reggio Emilia)

Places with scholarship:

- 7 without specific topic (2 of which is financed with funds from MIUR Call "Department of Excellence 2023-2027" - Department of Education and Human Sciences - CUP: E83C22006680001);

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods: based on academic and research record

The selection is intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates may submit the following additional documents:

- 1) self-certification of the degree (in the case of a degree obtained in Italy) or degree certificate (in the case of a degree obtained abroad) showing the list of exams taken and related marks;
- 2) curriculum vitae in Italian or English with indication of the university level qualifications;
- 3) a digital copy of the degree thesis (obtained prior to D.M. 509/99), or master's degree (D.M. 270/04), specialist degree (D.M. 509/99), or equivalent degree obtained abroad; alternatively, an abstract of the degree thesis;
- 4) a letter of motivation written in English – no longer than two pages – which illustrates the reasons why the candidate wishes to attend the PhD course and describes his/her specific research interests (Statement of Research Interest);
- 5) any certification attesting the knowledge of the English language (TOEFL, CAE/Proficiency or other) and other languages (if any) indicating the level achieved by the candidate;
- 6) a research project, written in Italian or English, related to one of the themes of the Course (<https://www.phdreggiochildhoodstudies.unimore.it/en/research-areas/>). The document, which will be between 2000 and 4000 words wide, must identify: i) a specific subject; ii) a working hypothesis; iii) a reference bibliography.

The Selection committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- exams taken, degree mark, degree thesis / abstract of the degree thesis (maximum 9 points)
- curriculum vitae and experience considered relevant (maximum 9 points),

- other qualifications, e.g. masters, courses, degrees (maximum 4 points),
- language skills (maximum 4 points),
- publications (maximum 4 points),
- research project (maximum 30 points); Evaluation criteria of the research project:
 - i) relevance of the proposal (maximum 9 points)
 - ii) feasibility in the space of the doctoral course (maximum 3 points)
 - iii) knowledge of the scientific framework (maximum 9 points)
 - iv) innovativeness of the proposal (maximum 9 points)

Candidates obtaining a minimum of 40 points will be allowed to interview.

Only on the University website at link <https://www.bandi.unimore.it/StuLau-GradSdott.html>, it will be published the list of candidates admitted to the interview and any variations in the methods and terms of the selection procedure, in a date between August 19th and 23th, 2024.

The Selection committee has the capacity to assign scores up to 60 points in the interview. Candidates may opt to have their interview in Italian or English. Knowledge of the English language will be assessed during the interview; candidates will discuss the research project and they will be given the opportunity to deepen or further develop it orally (please, note that no attachments or additional written documentation will be accepted).

Evaluation criteria:

- a) basic knowledge (maximum 25 points)
- b) argumentation skills (maximum 30 points)
- c) knowledge of languages (maximum 5 points)

Candidates with a score of at least 40 points will pass the interview.

Areas of the PhD Programme: Theory and philosophy of education in its aesthetic, linguistic, moral, social, organizational, religious and political dimensions; constructivist theories of (practical) knowledge and education; theory of perception; theory of moral discernment; theory of social, and emotional learning; theory of taste; theory of metaphors; theory of moral and practical reasoning for pluralistic and inclusive communities; theories of normative change, conflict resolution and mediation, human rights and interfaith dialogue; organizational approaches to pedagogy; theories of moral, epistemic and social responsibility; psychodynamics of family relations; group agency and processes and clinical psychology; gender and feminist theories; inclusive approaches to material and immaterial cultural heritage; media aesthetics; aesthetic, linguistic, digital, moral and religious literacy; theory of first and additional language acquisition and teaching; digital learning; digital storytelling in education.

The official language of the PhD program is English. However, every student is encouraged to learn the Italian language skills during their study cycle, considering that some activities will also be carried out in Italian.

Further information is available from PhD Programme website at: <http://www.phdreggiochildhoodstudies.unimore.it/>.

EXAMS SCHEDULE

In-person interview: September 2nd, 2024, 9:30 a.m.. Interviews could continue on September 3rd, 2024 9:30 a.m., should there be a high number of candidates,

The examination will take place in the “Kuwait” Room of Centro internazionale Loris Malaguzzi, Viale B. Ramazzini, 72/a, Reggio Emilia.

Interview via Microsoft Teams (allowed for each candidate, regardless of residence):

September 2nd, 2024, 9:30 a.m.. Interviews could continue on September 3rd, 2024 9:30 a.m., should there be a high number of candidates,

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.

15) PhD Programme in “HUMAN SCIENCES: STUDIES ON LANGUAGE AND LITERATURE, HISTORY AND PHILOSOPHY, COMMUNICATION AND DIGITAL HUMANITIES”

Places with scholarship:

- **4** without specific topic
- **1 with topic “Digital transition in Public Administrations”** (with PNRR DM 629/2024 funds, Mission 4, Component 2, Investment 4.1 “Public Administration”), for research activities in Modena Municipality (Comune di Modena);
- **1 with topic “Implementation of strongly user-oriented innovative strategies in Public Administrations”** (with PNRR DM 629/2024 funds, Mission 4, Component 2, Investment 4.1 “Public Administration”), for research activities in Prefecture of Modena (Prefettura di Modena);
- **1 with topic “Enhancement of Cultural Heritage”** (with PNRR DM 629/2024 funds, Mission 4, Component 2, Investment 4.1 “Cultural Heritage”), for research activities at the State Archive in Modena (Archivio di Stato di Modena);
- **1 with topic “Digital tools for publishing and creative cultural industries: cultural heritage and new tools for cultural heritage use”** (with PNRR DM 630/2024 funds, Mission 4, Component 2, Investment 3.3), for research activities at Haltadefinizione S.r.l.

Reserved places:

- **1** without scholarship for candidates with a degree awarded by a foreign University.
- **1** for candidates with scholarship of foreign Countries
- **1** covered by a three-year high apprenticeship contract, funded by **TICE Cooperativa Sociale** (registered offices in Alta Val Tidone (PC), Località Seguzzone 3) for carrying out work, training and research activities concerning motorial abilities and executive functions in children (mainly in preschool age) with autism and attention deficits. Applicants' requirements include: degree in psychology and training in neuropsychomotorial skills; competence in issues related to autism, emotion regulation and psychomotorial training; experience and practice in the area of neurodivergence. The apprentice will be hired at the Company's location in Piacenza (PC), via De Meis, 25 with a functional qualification equal to D1, on a part-time basis 25 hours a week and with application of the regulations and economics required by the current National Collective Labor Agreement relating to the Social Cooperatives sector, in which the Company operates.

Places without scholarship: 2

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for seven selection procedures depending on the type of positions available. Candidates interested in

more than one selection procedure must apply for each procedure in which they wish to participate and pay a € 25.00 fee.

The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of art. 3 of this application procedure, candidates may submit the following additional documents:

1) self-certification to prove that the degree has been obtained (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved;

2) curriculum vitae written in Italian or English in which the candidate describes his/her research and teaching activities and indicates his/her university degree qualifications obtained;

3) a copy of the degree dissertation in electronic form, degree obtained prior to D.M. 509/99 or second level degree ("laurea specialistica/magistrale") or equivalent degree (if obtained abroad), or an abstract of the degree dissertation;

4) a short essay written in English – no longer than two pages – which illustrates the reasons why the candidate wishes to attend the PhD Programme and describes his/her specific research interests (Statement of Research Interest);

5) any certification attesting the candidate's knowledge of the English language (TOEFL, CAE/Proficiency or other) or of other languages, indicating the level achieved;

6) a research project, in Italian or English, in one of the subject areas of the PhD Programme. The project will be a description – between four and ten pages in length – with: aim of the research, literature review, materials and methods, expected results, references. The project will not be binding for the Teaching Committee in terms of the possible attribution of a thesis title, regarding the scholarships without specific topic.

Referring to selection procedure n. 1 mentioned below, candidates who wish to apply primarily for the reserved position, must fill in the facsimile "Annex D1" of this call and attach it to the online application form.

The Selection Committee will examine the above documents for those who have expressed their interest in competing primarily for the reserved positions.

Referring to selection procedure n. 7 mentioned below, candidates must upload the documentation proving possession of the scholarship or the beginning of the application procedure to obtain it, before completing the online admission application.

1) Main selection procedure (for positions with scholarship without specific topic, position without scholarship and place reserved for the three-year high apprenticeship contract): based on academic and research record and interview

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be admitted to the interview when the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to the interview, and any variation in the selection procedure, will be published between August 28^h and 30th, 2024 on the University website at page <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates. It will also assess the candidate's knowledge of the English language and of other languages the candidate may have indicated in the application. A pass is achieved where candidates are awarded a minimum score of 40/60.

The judgement of suitability for the reserved place for the three-year high apprenticeship contract does not affect the marks awarded to the candidates, but is useful only for the purposes of the assignment of the reserved place. The sub-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

2) Selection procedure for a place with scholarship on the topic “Digital transition in Public Administrations”: based on academic and research record and interview

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be admitted to the interview when the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to the interview, and any variation in the selection procedure, will be published between August 28^h and 30th, 2024 on the University website at page <https://www.bandi.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates. It will also assess the candidate's knowledge of the English language and of other languages the candidate may have indicated in the application. A pass is achieved where candidates are awarded a minimum score of 40/60.

The judgement of suitability for the reserved place for the three-year high apprenticeship contract does not affect the marks awarded to the candidates, but is useful only for the purposes of the assignment of the reserved place. The sub-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

3) Selection procedure for a place with scholarship on the topic “Implementation of strongly user-oriented innovative strategies in Public Administrations”: based on academic and research record and interview

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be admitted to the interview when the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to the interview, and any variation in the selection procedure, will be published between August

28^h and 30th, 2024 on the University website at page <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates. It will also assess the candidate's knowledge of the English language and of other languages the candidate may have indicated in the application. A pass is achieved where candidates are awarded a minimum score of 40/60.

The judgement of suitability for the reserved place for the three-year high apprenticeship contract does not affect the marks awarded to the candidates, but is useful only for the purposes of the assignment of the reserved place. The sub-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

4) Selection procedure for a place with scholarship on the topic “Enhancement of Cultural Heritage”: based on academic and research record and interview

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be admitted to the interview when the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to the interview, and any variation in the selection procedure, will be published between August 28^h and 30th, 2024 on the University website at page <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates. It will also assess the candidate's knowledge of the English language and of other languages the candidate may have indicated in the application. A pass is achieved where candidates are awarded a minimum score of 40/60.

The judgement of suitability for the reserved place for the three-year high apprenticeship contract does not affect the marks awarded to the candidates, but is useful only for the purposes of the assignment of the reserved place. The sub-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

5) Selection procedure for a place with scholarship on the topic “Digital tools for publishing and creative cultural industries: cultural heritage and new tools for cultural heritage use”: based on academic and research record and interview

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be admitted to the interview when the evaluation of qualifications presented has a score of at least 40 points out of the 60 available. A list of the candidates admitted to the interview, and any variation in the selection procedure, will be published between August 28^h and 30th, 2024 on the University website at page <https://www.bandì.unimore.it/StuLau-GradSdott.html>.

For the interview, the Examiners may award a score of up to 60 points. Candidates may opt to have their interview in English. The interview will focus on the scientific methodologies used for the research project proposed by candidates and on the objectives the project aims to achieve, as well as on the research experience and the professional profile of the candidates. It will also assess the candidate's knowledge of the English language and of other languages the candidate may have indicated in the application. A pass is achieved where candidates are awarded a minimum score of 40/60.

The judgement of suitability for the reserved place for the three-year high apprenticeship contract does not affect the marks awarded to the candidates, but is useful only for the purposes of the assignment of the reserved place. The sub-mentioned place will be allocated, among the candidates who have expressed priority interest and have been deemed suitable, to the one with the highest score in the ranking list.

6) Selection procedure for a place reserved to candidates with scholarship of foreign Countries: based on academic and research record

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

The Selection committee will verify the presentation of the documentation proving the possession of the scholarship or the beginning of the request procedure to obtain it.

Candidates will be accepted for admission if the evaluation of qualifications presented has a score of at least 40 points out of the 60 available.

7) Selection procedure for a place without scholarship reserved for candidates with a degree awarded by a foreign University: based on academic and research record

The Selection Committee assigns scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 10 points,
- Master thesis/abstract and other qualifications: from 0 to 10 points,
- Publications: from 0 to 10 points,
- Research project: from 0 to 30 points.

Candidates will be accepted for admission if the evaluation of qualifications presented has a score of at least 40 points out of the 60 available.

Course themes:

The areas of the PhD Programme are: a) *Studies on Language and Literature* (English, French, German, Italian and Spanish studies): discourse analysis and specialized discourse, translation studies; b) *History and Philosophy*: theoretical philosophy, philosophy of language, moral philosophy and history of ideas; modern and contemporary History; sovereignty and nationalism, church and modernity c) *Education Theory and Methods*: sociology of communication, educational practices and processes; d) *Digital Humanities and Digital communication*: promotion of cultural heritage, planning and implementation of digital

databases, aspects and problems of digital communication, digital resources and tools for human studies, digital publishing, digital culture enterprises and creative culture enterprises.

The language required is English. All the students are encouraged to learn Italian during the years of the PhD and to write their dissertation in the language that is most relevant to their object of study (e.g. Italian for Italian studies, German for German Studies, French for French studies and Spanish for Spanish studies).

Further information is available on the PhD Programme website at: <http://www.dottoratoscienzeumane.unimore.it/>

EXAM SCHEDULE

Interviews via Microsoft Teams (allowed for each candidate, regardless of residence):

September 2nd, 2024, 9:30 a.m. Interviews may continue on September 3rd, 2023 9:30 a.m., should there be a high number of candidates.

Instructions on how to conduct the interview via Microsoft Teams will be communicated with the list of candidates admitted to the interview.

In-person interviews (only in cases where documented evidence of the inability to take the exam online is provided): September 3rd, 2024, 3:00 p.m. Interviews may continue on September 4th, 2023 9:30 a.m., should there be a high number of candidates, The examination will take place in Room B.1.3 at the Department of Studies on Language and Culture, Largo Sant'Eufemia, 19, Modena.

16) PhD Programme in “AGRI-FOOD SCIENCE, TECHNOLOGY AND BIOTECHNOLOGY” (Main venue: Reggio Emilia)

Places with scholarship:

- **8** on research topics of the PhD Course (of which 4 are financed by the University of Modena and Reggio Emilia; 4 are financed by UNIgreen Alliance members, in details: 1 financed by University of Almería – Spain; 1 financed by Agricultural University of Plovdiv, Bulgaria; 1 financed by Agricultural University of Iceland – Iceland; 1 financed by Polytechnic University of Coimbra – Portugal);

- **1** on topic **“Valorization of regional agri-food supply chain by-products for the development of nutraceuticals”** (financed by Regione Emilia Romagna in implementation of the programme "Territory: technological, cultural, economic and social transition towards sustainability" - ESF+ PR 2021/2027 - CUP E83C23000510002);

- **1** on topic **“Microbial fermentation as a tool to develop functional food enriched in bioactive peptides from dairy wastes (MICROHEALTHY)”** (financed by Regione Emilia Romagna in implementation of the programme "Territory: technological, cultural, economic and social transition towards sustainability" - ESF+ PR 2021/2027 - CUP E83C23000510002);

- **1** on topic **“Development and application of a genomic selection pipeline in tomato”** (with PNRR DM 630/2024 funds, Mission 4, Component 2, Investment 3.3) for research activities at ISI Sementi S.p.A.

Places without scholarship: 1 on research topics of the PhD Course

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 Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as

suitable for the admission to doctoral program, in accordance with the provisions in art. 2 of this application procedure.

Evaluation Methods (for all selection procedures): The Course provides for four selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must apply and pay the relevant fee of € 25.00 for each procedure in which they wish to participate.

The selections are intended to verify the candidate's preparation and aptitude to carry out research activities related to the topics of the PhD Course.

In addition to the provisions of the art. 3 of this application procedure, candidates are required to submit the following additional documents:

- 1) self-certification to prove that the degree has been conferred (if awarded by an Italian university), or Degree certificate (if awarded by a foreign university), with a list of exams taken and grades achieved.
- 2) curriculum vitae of research and teaching activities, indicating clearly and concisely what candidate has studied, skills acquired (languages, knowledge of computers, use of complex instrumentation, etc.) including any official certifications he/she may have. It must be written in English language using the template reported in *annex B2* and must include the exact name and nature of degrees possessed, publications, if applicable, and contributions to conferences/congresses;
- 3) a summary of MsC thesis in Italian or English, or equivalent – with length between 3000 and 5000 characters (including spaces) – organised under the following headings: statement of purpose, research methodology used, obtained results;
- 4) a Statement of Research Interest, written in English language using the template reported in *annex C2* and referring to the instructions contained therein, which illustrates the reasons why the candidate wishes to attend the PhD Programme, and describes her/his specific research interests, in relation to the Research Topics of the XL cycle of the PhD Programme (available from the PhD Programme website at: <http://www.steba.unimore.it/> under "Research topics").
- 5) any letters of presentation/reference drawn up by experts in the fields of research of the Course, indicating the public or private structure at which such experts work, which must be produced directly by the referees and exclusively according to the procedure indicated in art. 3 of the Call.

1) Main selection procedure (for positions with scholarship on research topics of the PhD Course and for place without scholarship): based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 30 points,
- Master thesis: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 10 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

Candidates obtaining a minimum score of 40/60 will be considered eligible.

2) Selection procedure for a position with scholarship with topic "Valorization of regional agri-food supply chain by-products for the development of nutraceuticals": based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 30 points,
- Master thesis: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 10 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

Candidates obtaining a minimum score of 40/60 will be considered eligible.

3) Selection procedure for a position with scholarship with topic “Microbial fermentation as a tool to develop functional food enriched in bioactive peptides from dairy wastes (MICROHEALTHY)”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 30 points,
- Master thesis: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 10 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

Candidates obtaining a minimum score of 40/60 will be considered eligible.

4) Selection procedure for a position with scholarship with topic “Development and application of a genomic selection pipeline in tomato”: based on academic and research record

The Selection Committee has the capacity to assign scores up to a total of 60 points in the evaluation of candidate qualifications, as follows:

- Curriculum: from 0 to 30 points,
- Master thesis: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 10 points.

Once the qualifications have been assessed, the Committee will compile a merit-based ranking of candidates based on the scores awarded.

Candidates obtaining a minimum score of 40/60 will be considered eligible.

Areas of the PhD Programme: The PhD program focuses on the production, transformation, quality, and safety of raw materials and food. It is offered by the University of Modena and Reggio Emilia in association with the University of Almeria (Spain), the Agricultural University of Plovdiv (Bulgaria), the Agricultural University of Iceland (Iceland), and the Polytechnic Institute of Coimbra (Portugal) within the UNIGreen Alliance.

The administrative headquarters of the program is the University of Modena and Reggio Emilia. At the sole discretion of the Academic Board, each PhD candidate will be assigned to a specific location based on the alignment of their profile with the research theme offered by that location. The assigned location will become the primary site for the candidate's study and research activities.

Each PhD candidate must spend a mobility period at a partner institution different from their assigned location for a minimum of 3 months and up to a maximum of 18 months, which may be non-consecutive.

The winner of the scholarship funded by PNRR DM 630/2024 must spend a mobility period at a partner institution different from their assigned location for a minimum of 6 months and

up to a maximum of 18 months, which may also be non-consecutive, and a period in a company ranging from a minimum of 6 months to a maximum of 18 months, which may also be non-consecutive.

Upon completion of the program, the University of Modena and Reggio Emilia will award a joint PhD degree with the aforementioned universities in "*Agri-food science, technology and biotechnology*".

Official course language: English.

Further information is available on the website of the PhD course at: <http://www.steba.unimore.it>

Modena, 27/06/2024

THE RECTOR
(Prof. Carlo Adolfo Porro)

Annex A1 (for candidates holding degrees awarded in Italy only)

Self-certification as substitute for attested declarations under articles 46 and 47, Presidential decree 445/2000

WARNING

The following self-certification complies with the dispositions of Presidential decree 445 of the 28th December 2000: "LEGISLATIVE DISPOSITIONS AND RULES FOR ADMINISTRATIVE FORMS". In particular:

- Details provided by candidates have to be considered as substitute for attested declaration under articles 46-47; following article 76 candidates who provide mendacious information can incur in administrative and criminal penalties.
- Following article 39 the self-certification does not require official stamps.
- Under articles 71 and 72 the relevant University office will verify the information provided.
- The information requested in this self-certification follow article 16 is strictly necessary for the selection procedures and will be kept confidential following the Legislative decree 196 of the 30th June 2003 on personal data protection.

DEGREE DESCRIPTION

**Italian second level degree "laurea magistrale" (under D.M. 270/04)
or Italian second level degree "laurea specialistica" (under D.M. 509/1999)
or Italian degree (prior to D.M. 509/1999)**

Aware of the provisions on criminal consequences for false declarations, under art. 76 of Presidential decree 445/2000 the undersigned

Family name _____

Given name _____

Place of birth _____

Date of birth (dd/mm/yyyy) _____

Citizenship _____

E-mail for correspondence _____

DECLARES TO HOLD THE FOLLOWING DEGREE CERTIFICATE

(Tick only one of the three options)

- Italian second level degree "Laurea magistrale" (under D.M. 270/04) in

_____ Degree class of _____

- Italian second level degree "Laurea specialistica" (under D.M. 509/1999) in

_____ Degree class of _____

- Italian degree (prior to D.M. 509/1999) in

Degree awarded by the University of _____

on the (dd/mm/yyyy) _____

Final mark _____

AND DECLARES

that, in accordance with articles 46 and 47 of Presidential decree 445/2000, the information included in all the copies attached to the admission form is correct.

Date and place

Signature (legible and in full)

Annex A2 (for candidates holding foreign degrees only)

Self-certification as substitute for attested declarations under articles 46 and 47, Presidential decree 445/2000

WARNING

The following self-certification complies with the dispositions of Presidential decree 445 of the 28th December 2000: "LEGISLATIVE DISPOSITIONS AND RULES FOR ADMINISTRATIVE FORMS". In particular:

- Details provided by candidates have to be considered as substitute for attested declaration under articles 46-47; following article 76 candidates who provide mendacious information can incur in administrative and criminal penalties.
- Following article 39 the self-certification does not require official stamps.
- Under articles 71 and 72 the relevant University office will verify the information provided.
- The information requested in this self-certification follow article 16 is strictly necessary for the selection procedures and will be kept confidential following the Legislative decree 196 of the 30th June 2003 on personal data protection.

DESCRIPTION OF THE QUALIFICATION (Degree, Master of Science or equivalent)

INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

Family name _____

Given name _____

Place of birth _____

Date of birth (dd/mm/yyyy) _____

Citizenship _____

E-mail for correspondence _____

INFORMATION IDENTIFYING THE QUALIFICATION

Level of Qualification (Degree, Master of Science or other) _____

Qualification in _____

Qualification awarded at the University of _____

Qualification awarded on (dd/mm/yyyy) _____

Final degree mark /grade _____

Main Field(s) of Study for the Qualification _____

Language(s) of Instruction/Examination _____

Official Length of Programme (years) _____

Access Requirement(s) to Programme _____

**INFORMATION ON THE EXAMINATIONS AND RESULTS GAINED FOR THE QUALIFICATION
(Examination and individual grades/marks/credits obtained)**

DATE	EXAMINATION	GRADE	MARK	CREDITS OBTAINED

Useful additional information about examinations and results _____

**INFORMATION ON THE FUNCTION OF THE QUALIFICATION IN THE COUNTRY WHERE THE
QUALIFICATION WAS AWARDED**

Does the title described above, in the country where it has been awarded, enable application to University PhD programmes? (Tick only one of the two options)

- Yes No

ADDITIONAL DECLARATION

In accordance with articles 46 and 47 of Presidential decree 445/2000, the information included in all the copies attached to the admission form is correct.

Date and place

Signature (legible and in full)

Annex B1 (Facsimile to be used only for applications to the PhD Programme in Labour, development and innovation).

CURRICULUM VITAE

for the purposes of the application for enrolment on the Doctoral Research Programme (XL cycle)

PERSONAL DATA

Name and surname

Date of birth

Nationality

Address

Telephone number and e-mail

EDUCATION

Period

Institution

Country where the qualification was awarded

Qualification awarded

Final mark

WORK EXPERIENCE

Period

Type of employment

Sector

Employment grade and duties

PARTICIPATION IN RESEARCH PROJECTS

Period

Title of the project

Disciplinary area

Tasks performed as part of the project

LANGUAGE SKILLS (Specify for each language the level of knowledge on the basis of the following scale, as laid down in the Common European Framework of the Council of Europe. Reference should also be made to any certification awarded to the candidate, such as TOEFL, etc.)

LANGUAGE.....

A1 (BEGINNER)

A2 (ELEMENTARY)

B1 (PRE INTERMEDIATE)

B2 (POST INTERMEDIATE)

C1 (ADVANCED)

C2 (PROFICIENCY)

ANALYTICAL SKILLS (Please specify, where applicable, analytical skills in relation to the research activity: statistical software, informatic instruments or database)

LIST OF PUBLICATIONS (WHERE APPLICABLE)

Date and place

Signature

ANNEX B2 (to be used only for applications to the PhD Programme in Agri-food science, technology and biotechnology)

CURRICULUM VITAE

PERSONAL INFORMATION

Replace with First name(s) Surname(s)

[All CV headings are optional. Remove any empty headings.]



📍 Replace with house number, street name, city, postcode, country

☎ Replace with telephone number 📱 Replace with mobile number

✉ State e-mail address

🌐 State personal website(s)

Date of birth: dd/mm/yyyy | **Nationality:** Enter nationality/-ies

EDUCATION AND TRAINING

Replace with dates
(from dd/mm/yy– to dd/mm/yy)

[Add separate entries for each course. Start from the most recent.]

RESEARCH EXPERIENCE

Replace with dates
(from dd/mm/yy– to dd/mm/yy)

[Remove any headings left empty.]

[Add separate entries for each experience. Start from the most recent]

Replace with occupation or position held (e.g., research grant, research scholarship.....)

Replace with University or Research Centre name and locality (if relevant, full address and website):

- Replace with main activities (max 200 characters)

TEACHING EXPERIENCE

Replace with dates
(from dd/mm/yy– to dd/mm/yy)

[Remove any headings left empty.]

[Add separate entries for each experience. Start from the most recent]

e.g mentorship, teaching, seminars (specifying place, institution)

WORK EXPERIENCE

Replace with dates
(from dd/mm/yy– to dd/mm/yy)

[Remove any headings left empty.]

[FILL WITH OTHER WORK EXPERIENCE (IF ANY)]

[Add separate entries for each experience. Start from the most recent]

Replace with occupation or position held

Replace with employer’s name and locality (if relevant, full address and website)

- Replace with main activities and responsibilities (max 200 characters)

PERSONAL SKILLS

Mother tongue(s)

Replace with mother tongue(s)

Other language(s)

Replace with language

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
Enter level	Enter level	Enter level	Enter level	Enter level

Replace with language certificate (if any). Enter level if known.
 Enter level | Enter level | Enter level | Enter level | Enter level
 Replace with name of language certificate (if any). Enter level if known.

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Common European Framework of Reference for Languages

Communication skills
 Replace with your communication skills. Specify in what context they were acquired.
 Example:
 • good communication skills gained through my experience as sales manager

Organisational / managerial skills
 Replace with your organisational / managerial skills. Specify in what context they were acquired. Example:
 • leadership (currently responsible for a team of 10 people)

Digital skills

SELF-ASSESSMENT

Word processors	Spreadsheet	Presentation software	Statistical software (specify)	Image editing	Programming languages (specify)
Enter level	Enter level	Enter level	Enter level	Enter level	Enter level

Levels: Basic user - Independent user - Proficient user

Digital competences - Self-assessment grid

Indicate below ICT-certificates (if any)

Replace with your other computer skills. Specify in what context they were acquired.

ADDITIONAL INFORMATION

[List relevant publications, presentations, conferences/seminars, honours and awards, memberships, other certifications (if any). Remove headings not relevant in the left column. Please, indicate for each publications the DOI code or any relevant information to find them on web. In absence of this information, the candidate can add the relevant files as annexes.]

- Publications
- Oral presentations
- Poster presentations
- Participation to Conferences/seminars
- Honours and awards
- Memberships
- Other certifications

Annex C1 (Facsimile to be used only for applications to the PhD Programme in Labour, development and innovation).

RESEARCH PROJECT

Submitted for admission to the PhD Course (XL cycle) by

Name and surname

Title of the project

Research areas (non-binding option)

Select one of the preferred research areas from the following link:

<https://www.phdlavorosviluppoinnovazione.unimore.it/en/research-areas/>

Abstract

(Summarise in no more than 10 lines the content and objectives of the project):

Background and goals (please explain the theoretical framework, the investigated problems and the goals of the project)

(Maximum 10.000 characters):

Methodology and intermediate stages of the research

**Please, specify (where applicable) analytical skills used in relation to the research activity
(for example: statistical software, informatic instruments o database)**

(Maximum 5.000 characters):

Essential bibliography
(*Minimum 10 publications*):

Date and place

Signature

ANNEX C2 (to be used only for applications to the PhD Programme in Agri-food science, technology and biotechnology)

STATEMENT OF RESEARCH INTEREST

Candidate: *name/surname*

In case of multiple research topics, please duplicate the table below

Title of the Research Topic	<i>Please, report here the exact title of the topic for the XL cycle, available from the PhD Programme website at: http://www.steba.unimore.it/site/home/research-topics.html</i>
Description of the specific research interest	(max 3000 characters including spaces) <i>Please illustrate the reasons why you wish to attend the PhD Programme and describe your specific research interests related to the Research Topic. Previous studies and experiences on the specific topic may be indicated.</i>

Annex D1 (Apprenticeship contract)

DECLARATION OF PRIORITARY INTEREST FOR THE FOLLOWING RESERVED PLACE

(the contract may be concluded only by candidates who have not yet reached their thirtieth year of age at the time of signing the contract)

I, _____ (full name), born in _____ (place) on _____ (date)

wish to express my interest in applying primarily for the following reserved place (please tick one of the following options):

- PhD Programme in “**Labour, development and Innovation**”:

- n. 1 position covered by an advanced training apprenticeship contract financed by Job Value Srl for carrying out work, training, and research activities on the topic of the relationship between flexible work organization methods (e.g., remote work, organizational delayering, agile teams and organizations), performance management systems and practices, and reward policies (monetary and non-monetary incentives)
- n. 1 position covered by an advanced training apprenticeship contract financed by Kosme S.r.l. for carrying out work, training, and research activities on the topic of implementation and impact of corporate innovation HUBs

- PhD Programme in “**Human Sciences: studies on language and literature, history and philosophy, communication and digital humanities**”:

- n. 1 place with apprenticeship contract for advanced training financed by TICE Cooperativa Sociale for work, training and research activities on the subject of motorial abilities and executive functions in children (mainly in preschool age) with autism and attention deficits.

The option hereby chosen has priority over regular places, with or without scholarship.

Date and place,

Signature

Annex D2 (Research grant)

PRIORITY DECLARATION OF INTEREST IN PARTICIPATING IN THE SELECTION PROCESS FOR THE FOLLOWING RESERVED POSITION

I, _____ (full name),
born in _____ (place) on _____ (date)
wish to express my interest in applying primarily for the following reserved place (please tick
one of the following options)

- PhD Programme in “**Civil, environmental and materials engineering**”:

- n. 1 place reserved funded by a three-year research grant “*Design, deposition and characterization of High Entropy Alloy (HEA) coatings: optimization of compositions and properties*”

- PhD Programme “Enzo Ferrari” in “**Mechanical and vehicle engineering**”:

- n. 1 place reserved funded by a three-year research grant “*Fluid-dynamic and thermofluid-dynamic modeling of high-performance engines with a high innovation content*”
- n. 1 place reserved funded by a three-year research grant “*Structural and thermostructural modeling of high-performance engines with a high innovation content*”
- n. 1 place reserved funded by a three-year research grant “*Integrated and robust design methods for parts and foundry equipment to improve aluminum alloy recycling in EU*”
- n. 1 place reserved funded by a three-year research grant “*Towards sustainable and smart supply chains: leveraging machine learning and mathematical models for optimized operations in simulations environments*”

The option hereby chosen has priority over regular places, with or without scholarship.

Date and place,

Signature

Annex D3 (candidates with scholarship provided by foreign States)

**PRIORITY DECLARATION OF INTEREST IN PARTICIPATING IN THE SELECTION
PROCESS FOR THE FOLLOWING RESERVED POSITION**

I, _____ (*full name*),
born in _____ (*place*) on _____ (*date*)
holder of the following scholarship provided by foreign Country
_____,
wish to express my interest in applying primarily for the following reserved place (please tick
one of the following options):

- PhD Programme in “**Civil, environmental and materials engineering**”:

- n. 2 places reserved for candidates with scholarship provided by foreign States

- PhD Programme in “**Mechanical and vehicle engineering**”:

- n. 1 place reserved for candidates with scholarship provided by foreign States

The option hereby chosen has priority over regular places, with or without scholarship.

Date and place,

Signature

ANNEX E

FORM “Declaration of interest in a possible apprenticeship contract for advanced training”

**DECLARATION OF INTEREST IN A POSSIBLE APPRENTICESHIP CONTRACT FOR
ADVANCED TRAINING**

(the contract may be concluded only by candidates who have not yet reached their
thirtieth year of age at the time of signing the contract)

**The document must be attached to the application for enrolment in the PhD
course or programme- a. a. 2024/2025 only if the candidate is interested in any
contract of apprenticeship for advanced training that may become available
later**

I, _____ (*full name*), born in
_____ (*place*) on _____ (*date*), wish to express my
interest in any possible “apprenticeship contract for advanced training and research” that may become
available, to be drawn up in accordance with under Legislative Decree no. 81/2015 and
Interministerial Decree 12/10/2015 and allocated to enrolled students selected by the University, in
conjunction with any interested firms, for such a contract and on the basis of candidates’ specific
qualifications.

Date and place,

Signature (legible and in full)

ANNEX F

Form “Self-certification of subscription to Gestione Separata Inps”

To

Payroll Office – Finance Directorate
Università degli Studi di Modena e Reggio Emilia
Via Università, 4 - 41121 Modena
E-mail: ufficiostipendi@unimore.it

**Autocertificazione di iscrizione alla Gestione Separata Inps
di cui all’art. 2, comma 26, L. 335/1995**
(resa ai sensi del D.P.R. 28 dicembre 2000, n.445 e s.m.i.)

Il sottoscritto _____
nato/a _____ il _____
Codice Fiscale _____

Titolare di (barrare la relativa opzione):

- | | |
|---|---|
| <input type="checkbox"/> Assegno di ricerca | <input type="checkbox"/> Collaborazione coordinata e continuativa |
| <input type="checkbox"/> Dottorato di ricerca | <input type="checkbox"/> Docenza a contratto |
| <input type="checkbox"/> Borsa di Specializzazione Medica | <input type="checkbox"/> Prestazione d’opera occasionale (redditi > € 5.000,00) |

DICHIARA:

di essere iscritto alla data odierna ed in seguito a conferma INPS, o che provvederà nei termini all’iscrizione, alla Gestione Separata Inps*:

- “ALTRA CASSA - aliquota MINIMA”¹ in quanto iscritto presso la seguente cassa pensionistica: (*specificare quale*)
- “CASSA UNICA - aliquota MASSIMA”² in quanto non iscritto presso alcuna cassa pensionistica obbligatoria

*L’iscrizione alla Gestione Separata INPS, da effettuarsi in via telematica entro la fine del primo mese di attività, è un adempimento a totale carico del percettore. UniMoRe declina ogni responsabilità connessa alla mancata iscrizione.

FIRMA

.....

Il sottoscritto dichiara, inoltre, di essere consapevole delle sanzioni penali, nel caso di dichiarazioni mendaci, richiamate dall’art. 76 del D.P.R. 445/2000 e dall’art. 495 del C.P. e **si impegna a comunicare, prima della liquidazione del compenso, qualsiasi modifica di quanto dichiarato.**

Modena,.....

FIRMA

.....

Si allega alla presente fotocopia del documento di identità del sottoscrittore e, possibilmente, tessera sanitaria o tessera codice fiscale

¹ Dall’anno 2016: 24,00%. Iscrizione che presuppone il versamento di contributi previdenziali ad altra cassa pensionistica obbligatoria, quali, ad esempio: Inps gestione dipendenti, artigiani, commercianti, Casse e Ordini professionali.

² Dall’anno 2022: 35,03%.

ANNEX G (Part 1) - Form “Accompanying declaration for scholarship holders”

DECLARATION TO BE ATTACHED FOR PhD STUDENTS HOLDING SCHOLARSHIPS IN THE PROCEDURE FOR APPLICATION FOR ENROLMENT ON A PhD PROGRAMME A. Y. 2024/2025, XL cycle

To be completed only by holders of scholarships

I, the undersigned Surname _____ First name _____

DECLARE TO BE FULLY AWARE THAT:

- a) the grant to which this declaration relates cannot be accumulated with any other study grants, regardless of their title, with the exception of grants awarded by national or foreign institutions which are available to support, with periods of study abroad, the grant holder’s training or research activities (art. 6, para 1, of Law 30.11.1989, n. 398);
- b) students who have previously held a grant cannot hold a second grant with the same title (art. 6, para 2, of Law 30.11.1989, n. 398);
- c) art. 1, sub-para a), of Law 315/98 states that, from the date 01.01.99, the MIUR (Ministry for Education, Further Education and Research) is required to guarantee the application of study grants to pursue research doctorates as per the regulations laid down by art 2, para 26, first part of Law No.335/95, and also art. 59, para 16, of Law No.449/97, as amended (compulsory general insurance with INPS – Italian Social Security Institute);
- d) state employees who hold grants to which this declaration relates may request special leave without pay for study purposes, as provided by art. 2 of Law No.476/1984 (art. 6, para 7, Law 398/89).

I, the undersigned, in accordance with articles 46 and 47 of D.P.R. No. 445 of 28.12.2000, aware of the liability incurred in the event of false declarations,

DECLARE

- a) **that I will not receive**, for the entire duration of the doctoral program, any other scholarships awarded for any reason, except those granted by national or foreign institutions to supplement the training or research activities of scholarship holders with periods abroad (art. 6, paragraph 1, of the law 30.11.1989, n. 398);
- b) **that I have not previously benefited**, even partially, from another scholarship for attendance at doctoral courses (art. 6, paragraph 2, law 398/89);
- c) **that I have never accepted** scholarships funded by the PNRR within the framework of the XXXVIII cycle and the XXXIX cycle (art. 11, paragraph 6, of D.M. 629/2024 and art. 8, paragraph 7, of D.M. 630/2024);
- d) **that I do not hold** a research fellowship as referred to in art. 51, paragraph 6, of law 449/97 and D.M. 11.02.1998;
- e) that I am aware of the obligations and rights of doctoral candidates, as specified in the competition notices for admission to doctoral courses or programs, XL cycle – a. y. 2024/2025, published on the University of Modena and Reggio Emilia website: www.unimore.it;
- f) that I have reviewed and fully understood the regulatory norms related to the doctoral program, published on the University of Modena and Reggio Emilia website: www.unimore.it;
- g) that I consent to the processing of my personal data, including sensitive data, in compliance with Regulation (EU) 2016/679 and Legislative Decree No. 196/2003 as amended by Legislative Decree 101/2018, and I am aware that the database is owned by the University of Modena and Reggio Emilia.

Italian and foreign citizens holding an academic degree awarded abroad are reminded they have to submit their academic transcript of records, together with its legalized Italian translation and the “declaration of equal value” issued by the Italian consular office of the country where the degree was awarded, if it is not already enclosed with the online application form, or certificate of comparability and verification issued by CIMEA as ENIC_NARIC centre, or Diploma supplement for academic degrees awarded in European Union.

Please note that citizens of States which do not belong to the European Union must provide documentation certifying insurance cover for medical treatment and hospitalization, together with a valid residence permit.

Date _____

Signature

ANNEX G (Part 2) - Form “Accompanying declaration for scholarship holders”

DECLARATION ACCOMPANYING APPLICATION FOR ENROLMENT ON A PhD PROGRAMME A.Y. 2024/2025, XL cycle

To be completed only by holders of scholarships

With full knowledge of the liability incurred in the event of a false declaration, in accordance with articles 46 and 47 of D.P.R. No. 445 of 28.12.2000, I the undersigned

Surname _____ First name _____

Tax code _____ Acquired surname _____

Born in _____ province of _____ on the _____

Resident at (street) _____ No. _____ Town/city _____

Post code _____ Province/State/County _____ Tel. _____

MOBILE PHONE _____ E-mail _____

Domiciled (if different from above) at _____ No. _____

Town/City _____ Post code _____ Province/State/County _____

REQUEST that the sum relating to the study grant

is paid into the current account of _____ (payment can only be made to an account in the name of the grant holder; the account may be in the name of more than one person inclusive of the grant holder – in this case specify all co-holders) with IBAN _____ . The International Bank Account Number consists of 27 characters: IT, 2 international code numbers, 1 national code letter (CIN), 5 numbers for the ABI code, 5 numbers for the CAB code, 12 alphanumeric characters for the current account number.

Important note: to avoid errors in the payment of sums due, the above-indicated fields must be completed fully and correctly. If in any doubt, please contact your own bank.

Please note that any bank charges arising from the bank transfer are the responsibility of the recipient of the monies.

I, the undersigned undertake to register promptly with the “INPS gestione separata” (by internet through the website at www.inps.it –searching “Iscrizione dei lavoratori parasubordinati alla Gestione Separata”– “Utilizza il Servizio”, or through the INPS Contact Centre at www.inps.it) and send via e-mail a ufficiostipendi@unimore.it the affidavit to prove the registration (using the form “Autocertificazione di iscrizione alla Gestione Separata Inps”) to the Ufficio Contabilità e Stipendi of the Università di Modena e Reggio Emilia, Via Università n. 4, Modena, by October 31, 2024 (if the graduate is already subscribed to the “INPS gestione separata” as a result of previous collaborations with other clients, it is only necessary to provide the affidavit confirming the registration with the INPS).

The payment of the grant is made in monthly instalments with fixed currency on 25th of the following month. The related coupons (“cedolini”) will be exclusively available on-line, at the following link: <https://unimore.u-web.cineca.it/>

In the event that facts are ascertained during the course of the year which vary from those declared, the undersigned undertakes to immediately communicate the relevant facts in writing, exonerating the University of Modena and Reggio Emilia from any responsibility whatsoever concerning the same.

Information in accordance with Legislative Decree of 30th June 2003, No.196

The personal data contained on this form is gathered by the University for the sole pur pose of fulfilling all of its administrative, accounting, financial and social security obligations under the law. The personal data gathered will, in observance of the aforementioned legislative obligations, be communicated to the Ministero delle Finanze (Ministry of Finance), the INPS office (Italian Social Security Institute), and to any other public bodies, to permit the same to carry out the respective institutional functions, within the boundaries established by the law and regulations.

Date _____ (Signature) _____

ANNEX H - Form “Declaration to be completed only by applicants without scholarships”

**DECLARATION ACCOMPANYING APPLICATION FOR ENROLMENT ON A PhD PROGRAMME
A.Y. 2024/2025, XL cycle**

I, the undersigned _____

DECLARE

- a) that I am aware of the rights and obligations of graduates, specified in the notice of competition for admission to PhD Programmes, XL cycle – A.Y. 2024/2025, on the internet site of the University of Modena and Reggio Emilia: *www.unimore.it*;
- b) to have read and fully understood the rules and regulations governing research doctorates, as published on the internet site of the University of Modena and Reggio Emilia: *www.unimore.it*.
- c) to hereby provide consent to their personal data being held, including sensitive information, in accordance with EU Regulation 2016/679 and Legislative Decree No.196/2003 as modified by Legislative Decree No. 101/2018, and to be aware that the databank is the property of the University of Modena and Reggio Emilia.

Italian and foreign citizens holding an academic degree awarded abroad are reminded they have to submit their academic transcript of records, together with its legalized Italian translation and the “declaration of equal value” issued by the Italian consular office of the country where the degree was awarded, if it is not already enclosed with the online application form, or certificate of comparability and verification issued by CIMEA as ENIC_NARIC centre, or Diploma supplement for academic degrees awarded in European Union.

Please note that citizens of States that do not belong to the European Union must provide documentation certifying insurance cover for medical treatment and hospitalization, together with a valid residence permit.

Date _____

Signature