

REGISTRATION OPENING: July 8th 2022 9:00 am (Italian time)
DEADLINE FOR APPLICATIONS: July 28th 1:00 pm (Italian time)



Student Services Area
PhD Office



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Rector's Decree No 698/2022
Prot. N°156200 of 29/06/2022

THE RECTOR

- GIVEN the Statute of the University of Modena and Reggio Emilia, enacted by Rector's Decree no. 3 of February 6, 2012 and subsequent amendments and additions;
- GIVEN the Italian Prime Minister's Decree of April 9, 2001 on "*Uniform treatment regarding the right to higher education*", in accordance with art. 4 of Law no. 390 of December 2, 1991, and subsequent amendments and additions;
- GIVEN art. 4 of Law no. 210 of July 3, 1998 on "*Guidelines for the recruitment of tenured university researchers and professors*", published in the Official Gazette of July 6, 1998, General Series no. 155, and subsequent amendments and additions;
- GIVEN Ministerial Decree no. 226 of December 14, 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 29, 2021, General Series, no. 308;
- GIVEN Rector's Decree no. 481 of May 12, 2022, implementing the provisions contained in Ministerial Decree no. 226 of December 14, 2021, to enact the University Regulations governing PhD studies, and subsequent amendments and additions;
- GIVEN the Protocol Agreement of April 7, 2006 between the Ministry of Education, Higher Education and Research, the University of Modena and Reggio Emilia, the "Marco Biagi" Foundation, and the Association for International and Comparative Studies in Labour Law and Industrial Relations, and subsequent amendments;
- GIVEN the Protocol Agreement of April 7, 2006 between the Ministry of Education, Higher Education and Research, the University of Modena and Reggio Emilia, the "Marco Biagi" Foundation, and the Association for International and Comparative Studies in Labour Law and Industrial Relations, and subsequent amendments;
- GIVEN Law no. 240 of December 30, 2010;
- GIVEN the legislation regarding apprenticeship contract for advanced training;
- GIVEN 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;
- GIVEN the resolution of the Academic Senate in its session of May 24, 2017 and the Executive Board in its session of May 26, 2017 approving the guidelines for the use of telematic methods for the selection procedures for admission to PhD programmes;
- GIVEN Ministerial Decree no. 301 of March 22, 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 14, 2021*";
- GIVEN that the Department of Biomedical, Metabolic and Neuroscience Sciences, the Department of Medical and Surgical Sciences, the Department of Studies on Language and Culture 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 2018-2022, foreseen by Law No. 232/2016, as per Ministerial Decree 262/2017 and the note MIUR prot. n. 8414 of 11/07/2017;

- GIVEN Ministerial Decree no. 351 of April 9, 2022 which set out for the academic year 2022/2023 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;
- GIVEN Ministerial Decree no. 352 of April 9, 2022 which set out for the academic year 2022/2023 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;
- GIVEN the resolutions of the Senate of May 10, 2022 and of the Exexecutive Boards of May 13 and 20, 2022 which approved the planning and the establishment of PhD programmes, with administrative headquarters at the University of Modena and Reggio Emilia;
- GIVEN the rectoral decree of June 10, 2022, no. 613, which determined the amount of tuition and fee charges for enrolment and attendance in PhD programmes for the academic year 2022/23;
- GIVEN the activation and renewal proposals of the PhD programmes submitted by this University to the Ministry of 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 University and Research on the activation of these courses, in order to respect the timetable envisaged by the Ministry of University and Research for the publication of the rankings;

DECREES

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 1, 2022 listed in art. 17, which follows, for the XXXVIII cycle, Academic Year 2022/2023.

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 22, 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 14, 2021”.

PhD scholarships awarded by the founding of MD no. 351 of April 9, 2022 and MD no. 352 of April 9, 2022 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. 351 of April 9, 2022 and MD no. 352 of April 9, 2022, which provide the development of a specific research theme, are bound to conduct this activity.

The research activities financed by MD no. 351 of April 9, 2022 provide periods of study and research abroad from a minimum of six months and a maximum of eighteen months and periods of study and research in the enterprise, research institution or public administration from a minimum of six months to a maximum of twelve months.

The research activities financed by MD no. 352 of April 9, 2022 provide periods of study and research abroad from a minimum of six months and a maximum of eighteen months and periods of study and research in the enterprise, from a minimum of six months to a maximum of eighteen months.

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.

There will be positions reserved for doctoral programme in collaboration with enterprises for employees of the companies listed in art. 17, within the sections relating to Courses.

A candidate holding an apprenticeship contract or doctoral programme in collaboration with enterprises 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 31, 2022**, 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 a 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.

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 31, 2022, 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 31, 2022, 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 a 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 employed by the companies listed in Art. 17 within the sections relating to PhD Programmes, may take part in the selection process for doctoral programme in collaboration with enterprises. For the purposes of registration to the Programme, suitable candidates must have a permanent or fixed-term contract of employment. In the case of fixed-term contracts, the duration of the contract, which is not relevant for the purposes of admission to the selection procedures, must in any case cover at least the official duration of the Programme (November 1, 2022 – October 31 2025).

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 since July 8, 2022 at 9.00 a.m. (local time) until the final deadline of **July 28 2022, at 1:00 p.m. (local time)**, 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 before July 28, 2022.

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 28, 2022, 1.00 pm) 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 28, 2022, 1.00 pm). 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.

Applications and supporting enclosures may not be submitted by e-mail or fax.

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 old ordinance degree or second level 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 (that must include the Skype address);
- 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 8, 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 31, 2022;
- 4) in the case of candidates who complete their degree after the deadline for this call, but before October 31, 2022, 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 31, 2022, at 23:59 (italian time); 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, D3 or D4). 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 12 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 and the written test 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 case of assessment based on qualifications only, the Board may contact the candidates by videoconference via Skype for an interview to discuss the materials submitted; for this reason, candidates must enter their Skype address in their curriculum. This interview will not lead to any additional score

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.unimore.it>, under: "Academic programmes" / "Doctorate Programmes", within the designated section for each PhD Programme;
- 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 enrollment in several study programmes is ruled by Law no. 33 of April 12, 2022.

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 seven-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 or BITMAP 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 for applicants for the doctoral programme in collaboration with enterprises) the copy of their job contract or a declaration by their employer or self-certification under articles 46 and 47 of Presidential Decree 445/2000 regarding the type and length of contract, in accordance with article 2 of this Call. Candidates not already in possession of the above documentation must submit it by October 31, 2022 via e-mail to segr.dottorati@unimore.it
- k) (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 31, 2022.

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 31, 2022, 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 31, 2022, 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 31, 2022, 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 31, 2022, 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 two days 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 2022/2023 is posted on the University Web site, under art. 6. For the PhD scholarships awarded by the founding of MD no. 351 of April 9, 2022 and MD no. 352 of April 9, 2022, the procedure shall be considered completed not later than October 20, 2022.

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 30, 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.

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.

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)", "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 2022/2023 academic year, that will be available at www.er-go.it (selecting "Servizi" – "Diritto allo studio") starting from the middle of July 2022.

To request interventions for the right to study it is necessary to be in possession of the ISEE Certification 2022 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 advice exclusively in completing the online application contact:

- "Parla con ER.GO" 051.19907580 or 051.0185268 – available every day from Monday to Friday - from 9.30 am to 4.00 pm
- "ER.GO Risponde" – <http://www.er-go.it/fileadmin/include/faq/index.php>

Except for the place reserved to the apprenticeship contract for advanced training funded by Evidence Srl (Tuscany Region), 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 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 <http://www.unimore.it/didattica/dottorati.html> (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. 351 of April 9, 2022 and MD no. 352 of April 9, 2022, that may be notified by the Ministry of University and Research.

ARTICLE 12 – Public employees

In accordance with the law, upon submitting an application, public employees who are admitted to a doctoral programme, in keeping with administrative requirements, are granted a leave of absence for study purposes, without remuneration, for the duration of the programme, and will receive a research grant, where applicable. In cases where they are admitted to a PhD programme without a scholarship, or if they decline a scholarship, they shall be entitled to the remuneration, insurance, and pension contributions pertaining to the public body by which they are employed. In cases where the employment relationship with the public body is terminated by the employee within two years after the awarding of the PhD degree, the employee shall be required to reimburse the amounts of the abovementioned remuneration and contributions.

Public employees who have already earned a PhD or who have been enrolled in a PhD program for at least one year, thereby benefiting from a leave of absence, are not entitled to an additional leave of absence with or without remuneration.

The period of the leave of absence shall be considered for purposes of career advancement as well as insurance and pension entitlements.

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 AlmaLaurea database. This will enable the AlmaLaurea 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 (Dr. Filippo Cavazzuti - 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 Doctorate Research Courses

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

Places with scholarship:

- 6 scholarships without specific topic
- 1* with topic “Dissecting the role and druggability of NEAT1 and discovery of novel deregulated long noncoding RNAs in multiple myeloma”;
- 1* with topic “Implementation of the iVATS method (image guided video assisted thoroscopic surgery) for the treatment of non-palpable lung lesions”;
- 1* with topic “The impact on women's quality of life, health care providers and professionals, of a nursing-managed multidisciplinary service for the dermopigmentation of the areola-nipple complex after breast reconstruction following breast cancer”;
- 1* with topic “Clinical and prognostic significance of the molecular features and histopathological changes found on temporal artery biopsy in a cohort of patients with giant cell arteritis: a population study”;
- 1* with topic “Immunohistochemical and molecular study of small cell mesotheliomas. Review of the cases of mesothelioma related to the Pathological Anatomy Service of the Reggio Emilia Hospital from 2001 to 2021 with the aim of identifying cases of small cell variant and other rare variants”;
- 1* with topic “Added value of radiological imaging in the stratification of cardiovascular risk and in the evaluation of cardiotoxicity of the oncohaematological patient”;
- 1* with topic “Platelet-based therapies in cancer: biochemical and preclinical characterization”
- 1* with topic “Next-Generation Sequencing and molecular biology in the diagnosis of vitreoretinal lymphoma”
- 1 with topic “Exposure to antibiotics in low-weight infants admitted to a network of Italian hospitals”
- 1 with topic “Use of wearable sensors for the assessment and motor re-education in hospital and home settings of the person with major arthroplasty”
- 1** with topic “Mechanism of action studies of innovative anticancer agents targeting protein dimer-monomer equilibrium (DdisTS)”

*The person awarded the PhD scholarship financed by the AUSL-IRCCS of Reggio Emilia must meet the requirements established for the employees of the AUSL-IRCCS of Reggio Emilia by Law Decree no. 44 of 01 April 2021, converted into Law no. 76/2021 and subsequent amendments and integrations, including those established by Law Decree no. 26 November 2021, no. 172 "Urgent measures for the containment of the COVID-19 epidemic and for the safe performance of economic and social activities", being equated to such personnel pursuant to Article 2 of Legislative Decree 81/08. 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.

**Co-financed by AIRC 2021 funds - Department of Life Sciences - University of Modena and Reggio Emilia - CUP: E55F21003270007

Places without scholarship: 5

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 submit an application 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 indicating university qualifications held;
- 3) A summary of the final thesis in Italian or English, or equivalent, in a minimum of three and maximum of six pages organised under the following headings: subject of the thesis, research methodology, results obtained and their relevance for the study of mechanisms, diagnosis and therapy of human diseases;
- 4) A brief statement of no more than two pages written in English, outlining the motivation for attending the PhD Programme and a description of his/her areas of specific research interest (Statement of Research Interest);
- 5) Certification attesting the knowledge of the English language (TOEFL, Proficiency or other);
- 6) GRE (Graduate Record Examination) certificates;
- 7) At least two letters of presentation/reference/recommendation written by professors of the institutions in which the candidate has been training/working, which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call;
- 8) Scientific activity or certified courses abroad;
- 9) Fellowships and stipends for research or higher education;
- 10) Names, affiliation and email addresses of one or more referees.

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 level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 270/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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 “Dissecting the role and druggability of NEAT1 and discovery of novel deregulated long noncoding RNAs in multiple myeloma”: based on academic and research record

Admission requirements: Italian second level degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-6 Biology, or “Laurea specialistica” (under D.M. 509/99) in degree class 6/S Biology, or Italian degree obtained prior to D.M. 509/99 in Biological sciences, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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 “Implementation of the iVATS method (image guided video assisted thoracoscopic surgery) for the treatment of non-palpable lung lesions”: based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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 “The impact on women's quality of life, health care providers and professionals, of a nursing-managed multidisciplinary service for the dermopigmentation of the areola-nipple complex after breast reconstruction following breast cancer”: based on academic and research record

Admission requirements: Italian second level 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 equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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 "Clinical and prognostic significance of the molecular features and histopathological changes found on temporal artery biopsy in a cohort of patients with giant cell arteritis: a population study": based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

6) Selection procedure for a place with scholarship with topic "Immunohistochemical and molecular study of small cell mesotheliomas. Review of the cases of mesothelioma related to the Pathological Anatomy Service of the Reggio Emilia Hospital from 2001 to 2021 with the aim of identifying cases of small cell variant and other rare variants": based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

7) Selection procedure for a place with scholarship with topic “Added value of radiological imaging in the stratification of cardiovascular risk and in the evaluation of cardiotoxicity of the oncohaematological patient”: based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

8) Selection procedure for a place with scholarship with topic “Platelet-based therapies in cancer: biochemical and preclinical characterisation”: based on academic and research record

Admission requirements: Italian second level degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-9 Medical, Veterinary, Pharmaceutical Biotechnologies, or “Laurea specialistica” (under D.M. 509/99) in degree class 9/S Medical, Veterinary, Pharmaceutical Biotechnologies, or Italian degree obtained prior to D.M. 509/99 in Biotechnologies - Pharmaceutical Biotechnologies, Biotechnologies - Medical Biotechnologies, Biotechnologies - Veterinary Biotechnologies, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

9) Selection procedure for a place with scholarship with topic “Next-Generation Sequencing and molecular biology in the diagnosis of vitreoretinal lymphoma”: based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

10) Selection procedure for a place with scholarship with topic “Exposure to antibiotics in low-weight infants admitted to a network of Italian hospitals”: based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

11) Selection procedure for a place with scholarship with topic “Use of wearable sensors for the assessment and motor re-education in hospital and home settings of the person with major arthroplasty”: based on academic and research record

Admission requirements: Italian second level 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 degree obtained prior to D.M. 509/99 in Medicine and Surgery, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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.

12) Selection procedure for a place with scholarship with topic “Mechanism of action studies of innovative anticancer agents targeting protein dimer-monomer equilibrium (DdisTS)”: based on academic and research record

Admission requirements: Italian second level degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-6 Biology, or “Laurea specialistica” (under D.M. 509/99) in degree class 6/S Biology, or Italian degree obtained prior to D.M. 509/99 in Biological sciences, or equivalent qualification obtained abroad 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:

- Final degree mark: 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,
- Periods of research abroad: from 0 to 5 points,
- Letters of presentation: from 0 to 12 points,
- Other qualifications (English language certificates, information and communication technology certificates, scholarships, awards, masters, PhD, work placements and others): 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 3 curricula: - Public Health - Translational medicine – Nanomedicine, Medicinal and pharmaceutical sciences.

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:

- 4 scholarships without specific topic
- 1 with topic “HW/SW solutions for the acceleration of AI workloads on heterogeneous embedded systems”;
- 1 with topic “Planning and control of vehicle motion in complex urban environments”;
- 1* with topic “A modern and innovative learning system to enable efficient, lean and cost-effective public administration” (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration” for research activities at Emilia Romagna Region)
- 1* with topic “Challenges of the Public Administration in the Evolving World of ICT” (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration” for research activities at City of Modena)
- 1** with topic “Efficient blockchain integration on IoT devices” (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Digibelt S.r.l.)
- 1** with topic “Data management, analytics and intelligent AI-based knowledge extraction for multilingual and multi-alphabetic heritages” (with PNRR DM352/2022, Mission 4, Component 2, Investment 3.3 funds for research activities at MIM FSCIRE S.r.l.)
- 1** with topic “Smart and semi-automatic tools for optimisation and configuration of high-performance real-time embedded systems” (with PNRR DM352/2022 funds Mission 4, Component 2, Investment 3.3, for research activities at Minerva Systems S.r.l.)
- 1** with topic “Digital Twin and Innovative Systems Emulator” (with PNRR DM352/2022 funds Mission 4, Component 2, Investment 3.3 for research activities at ONE-SYS S.r.l.)

**CUP for scholarships with PNRR DM351/2022 funds: E93C22001230006.*

***CUP for scholarships with PNRR DM352/2022 funds: E93C22001200004.*

Places without scholarship: 3

Reserved places:

- 1 covered by a three-year high apprenticeship contract, funded by **Minerva System S.r.l.** for carrying out work, training and research activities on the subject of high performance or high predictability system software, with the following characteristics: design, development, testing, analysis and performance evaluation of operating systems, hypervisors and related components such as kernels, drivers, programming interfaces and libraries, as well as virtualisation or communication middleware. The apprentice will be hired at the establishment of the Company for treatment in Modena, Via Campi, 213/B, full-time with application of the regulations and economics required by the current National Collective Labor Agreement relating to the Metalworking sector - small industry CONFAPI, in which the Company operates.
- 1 covered by a three-year high apprenticeship contract, funded by **Evidence S.r.l.** for carrying out work, training and research activities on the subject of design and development of multicore operating systems, with the following characteristics: multi-core, memory/cache interference, heterogeneous HW. The apprentice will be hired at the

establishment of the Company for treatment in Pisa, Via Pietro Nenni, 24, full-time with application of the regulations and economics required by the current National Collective Labor Agreement relating to the telecommunications sector, in which the Company operates.

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure (for all the selection procedures): The Course provides for nine selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must submit an application 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) any certification attesting the knowledge of the English language (TOEFL, Proficiency or other);
- 6) any GRE (Graduate Record Examination) certificates.
- 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.

Referring to selection procedure n. 1 mentioned below, candidates who wish to apply primarily for the reserved places funded by a three-year high-level 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, places reserved funded by a three-year high-level apprenticeship contract and places without scholarship): based on academic and research record and interview

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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

The reserved places for the industrial doctorate will be allocated to the candidates reaching the best ranking positions among those who have applied primarily for the reserved places.

The Commission will assign a judgement of suitability or otherwise limited to those who have expressed their interest in competing with priority for the reserved post covered by the advanced training apprenticeship contract at **Minerva Systems S.r.l.**, on the basis of the following assessable aspects:

- Master's degree (or equivalent qualification) in Computer Science
- Knowledge in the field of embedded systems and/or high-performance systems
- Knowledge in the field of system development, e.g. on kernels and drivers, C programming
- Work experience relevant to the research topics

The judgment of suitability for the reserved place does not affect the score assigned to the candidates, but is only useful to assign the reserved place; this place will be assigned, among the candidates who have expressed priority interest and have been considered eligible, to the one who will have the highest score in the ranking.

The Commission will assign a judgement of suitability or otherwise limited to those who have expressed their interest in competing with priority for the reserved post covered by the advanced training apprenticeship contract at **Evidence S.r.l.**, on the basis of the following assessable aspects:

- Master's degree (or equivalent qualification) in Computer Science or Computer Engineering
- Academic/work experience relevant to the research topics such as
- Experience in kernel-space programming
- Experience with scheduling algorithms and memory management
- Experiences of embedded programming
- Experiences of programming on POSIX systems

2) Selection procedure for a place with scholarship with topic “HW/SW solutions for the acceleration of AI workloads on heterogeneous embedded systems”: based on academic and research record and interview

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, with a focus on the following elements:
 - Master's degree in Computer Science, Computer Engineering or equivalent,
 - Knowledge in the field of heterogeneous and highly parallel systems on a single chip, with special emphasis on deployment of AI-type applications on these systems,
 - Knowledge of FPGA development with HLS or HDL methodology, with particular emphasis on AI applications,
 - Knowledge of programming models, compilers and runtime support systems for parallel and heterogeneous architectures,
- Publications, conference presentations, patents: from 0 to 10 points;
- Statement of Research Interest on the indicated topic, to assess 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 40/60 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **Interview:** 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

3) Selection procedure for a place with scholarship with topic “Planning and control of vehicle motion in complex urban environments”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **Interview:** 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

4) Selection procedure for a place with scholarship with topic “A modern and innovative learning system to enable efficient, lean and cost-effective public administration”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University

website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **Interview:** 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

5) Selection procedure for a place with scholarship with topic “Challenges of the Public Administration in the Evolving World of ICT”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **Interview:** 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

6) Selection procedure for a place with scholarship with topic “Efficient blockchain integration on IoT devices”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **Interview:** 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

7) Selection procedure for a place with scholarship with topic “Data management, analytics and intelligent AI-based knowledge extraction for multilingual and multi-alphabetic heritages”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- Interview: 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

8) Selection procedure for a place with scholarship with topic “Smart and semi-automatic tools for optimisation and configuration of high-performance real-time embedded systems”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- Interview: 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

9) Selection procedure for a place with scholarship with topic “Digital Twin and Innovative Systems Emulator”: based on academic and research record and interview

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 on the indicated topic, to assess 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 August 29th and 30th, 2022 exclusively at <https://www.unimore.it/didattica/dottorati.html> on the University website, within the tab dedicated to the Course in Computer and Data Science for Technological and Social Innovation.

- **Interview:** 0 to 60 points

The interview will focus on the description of a hypothetical research project on the presented topic. 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 on the basis of the marks awarded to the candidates. Candidates who obtain a minimum score of 80/120 are deemed eligible.

EXAM SCHEDULE – SELECTION PROCEDURE 1 (MAIN)

In-person interview: September 5th 2022, 9:00 a.m. Interviews could continue on September 6th 2022, 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): September 5th 2022, after the in-person interviews. The exact time will be determined following the selection procedure on the basis of qualifications. Interviews could continue on September 6th 2022, should there be a high number of candidates, after the in-person interviews and with an agreed timetable as already specified. The test will take place via Google Meet.

EXAM SCHEDULE – SELECTION PROCEDURES 2, 3, 4, 5, 6, 7, 8 AND 9

In-person interview: September 5th 2022, after the main selection interviews. The exact time will be determined after the selection procedure on the basis of qualifications. Interviews could continue on September 6th 2022, 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): September 5th 2022, after the in-person interviews. The exact time will be determined after the selection procedure on the basis of qualifications. Interviews could continue on September 6th 2022, 9:00 a.m., should there be a high number of candidates. The test will take place via Google Meet.

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

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

Places with scholarship:

- 5 scholarships without specific topic
- 1 with topic **“Study and construction of non-invasive medical sensors for reading blood values that are currently not accessible with low-cost technologies”**;
- 1 with topic **“Generative learning for visual and language understanding”** (funded by PRIN 2020 Project “CREATIVE: CRoss-modal understanding and gEnerATIOn of Visual and tExtual content” - CUP B87G22000460001);
- 1 with topic **“Extension of robotic manipulation capabilities by mobile co-operative systems and flexible multi-robots (Co_MIR)”** (funded by PRIN 2020 Project “Extending Robotic Manipulation Capabilities by Cooperative Mobile and Flexible Multi-Robot Systems” – CUP E93C20007880001);
- 1 with topic **“Development of simulation tools for quantum applications of hollow core fibers”** (funded by HORIZON 2020 Project FETOPEN “CRYST^3: ‘ATOM-LIGHT CRYSTALS IN PHOTONIC CRYSTALS’” - CUP E95F21000500006);
- 1 with topic **“High performance Big Data Integration for Artificial Intelligence”** (funded by Leonardo S.p.A.);
- 1 with topic **“Few Shot Learning applied to Object Detection”** (funded by Leonardo S.p.A.);
- 1* with topic **“Privacy Preserving Record Linkage Techniques in Big Data Integration for E-Health”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration” for research activities at Emilia Romagna Region);
- 1* with topic **“Data analysis of the criminal and civil trial in order to structure a predictive system of the times of the trial”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration” for research activities at the Court of Modena);
- 1** with topic **“Deep Learning for Document Understanding e Natural Language Processing”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Altilia S.r.l.);
- 1** with topic **“Novel deep Learning techniques under weakly and uncertain annotation in continuous and batch regime”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Axyon AI S.r.l.);
- 1** with topic **“Design of electric drives for a more sustainable agriculture”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at CNH Industrial Italia S.p.A.);
- 1** with topic **“Design of more-electric tractors for a more sustainable agriculture”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at CNH Industrial Italia S.p.A.);
- 1** with topic **“Use of LoRaWAN and ultrawideband technologies for precise localization applications”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Embit S.r.l.);
- 1** with topic **“Studying host-pathogen interaction via microscopy and Deep Learning: application to antimicrobial resistant bacteria and monoclonal antibodies discovery”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Toscana Life Sciences Foundation);
- 1** with topic **“Advances in (Self-attentive and semi-supervised) AI Architectures for large scale, explainable Image Retrieval”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Leonardo S.p.A.);

- **1** with topic “Healthcare applications of Artificial Intelligence, Computer Vision and Medical Imaging”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Miliaris S.r.l.);
- **1** with topic “Tridimensional digitalization of vehicles through computer vision advanced techniques”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Prometeia S.p.A.);
- **1** with topic “Development of high-performance electric motors with the use of finite element analysis, additive manufacturing and special materials”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at RAW Power S.r.l.);
- **2** with topic “AI techniques for time series analysis and prediction exploiting structured information”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Ammagamma S.r.l.);
- **1** with topic “Power converters for improved efficiency and reliability of electric vehicles”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at High Performance Engineering S.r.l.);
- **1 place funded by a three-year research grant with topic “High reliable and sustainable Electrical machines for vehicle electrification”** – Tutor: Prof. Giovanni Franceschini (Co-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 from “TRANSFORM”, TRANSFORM-H2020ECSEL_FRANCESCHINI, CUP: G55F21000770007)
- **1 place funded by a three-year research grant with topic “Wide-bandgap based Power converters for improved efficiency and reliability”** – Tutor: Prof. Davide Barater (Co-tutor: Prof. Giovanni Franceschini) – SSD: ING/IND 32 Electrical converters, machines and drives – yearly amount of the grant (gross amount): € 19.367,00 (with funds from “YesVGan”, YESVGAN-H2020-ECSEL_PAVAN, CUP: G55F20002930005)

**CUP for scholarships with PNRR DM351/2022 funds: E93C22001140006.*

***CUP for scholarships with PNRR DM352/2022 funds: E93C22001150004.*

Places without scholarship: 2

Places reserved for PhD in collaboration with enterprises:

- 2 employees of Altilia S.r.l., with registered offices in Rende (CS), Via A. Volta, 41;
- 1 employee of Datalogic S.p.A., with registered offices in Calderara di Reno (BO), Via Candini, 2;
- 1 employee of Datariver S.r.l., with registered offices in Modena, Via Emilia Est, 985 / int.2;
- 1 employee of Prometeia S.p.A., with registered offices in Bologna, Piazza Trento e Trieste, 3;
- 1 employee of STMicroelectronics S.r.l., with registered offices in Agrate Brianza (MB), Via Camillo Olivetti, 2;

Reserved places:

- **1** covered by a three-year high apprenticeship contract, funded by **Embit S.r.l.** for carrying out work, training and research activities on the topics of antennas, ElectroMagnetic Compatibility (EMC) and electromagnetic simulations. The apprentice will be hired at the establishment of the Company for treatment in Modena, via Emilia Est, 911, full-time with application of the regulations and economics required by the current National Collective Labor Agreement relating to the Metal-mechanical industry sector, in which the Company operates.

Admission requirements for selection procedures 1 to 21: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian

degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Admission requirements for selection procedure 22: Italian second level degree "Laurea Magistrale" (under D.M. 270/04) in degree classes LM-28 Electrical Engineering, LM-33 Mechanical Engineering, or "Laurea specialistica" (under D.M. 509/99) in degree classes 31/S Electrical Engineering, 36/S Mechanical Engineering, or Italian degree obtained prior to D.M. 509/99 in Electrical Engineering, in Mechanical Engineering, in Industrial Engineering, or equivalent qualification obtained abroad in accordance with the provisions in art. 2 of this application procedure.

Admission requirements for selection procedure 23: Italian second level degree "Laurea Magistrale" (under D.M. 270/04) in degree classes LM-28 Electrical Engineering, LM-29 Electronic Engineering, LM-33 Mechanical Engineering, or "Laurea specialistica" (under D.M. 509/99) in degree classes 31/S Electrical Engineering, 32/S Electronic Engineering, 36/S Mechanical Engineering, or Italian degree obtained prior to D.M. 509/99 in Electrical Engineering, in Electronic Engineering, in Mechanical Engineering, in Industrial Engineering, or equivalent qualification obtained abroad in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure (for all the selection procedures): The Course provides for twenty-three selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must submit an application 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.

Referring to selection procedure n. 1 mentioned below, candidates who meet the requirement (being employees of the enterprise) and wish to apply primarily for the reserved place, must fill in and attach to the online application form the facsimile "Annex D2" of this call.

The Commission will verify whether or not those who have expressed an interest in competing for the reserved position have met the requirement.

Referring to selection procedure n. 1 mentioned below, candidates who wish to apply primarily for the reserved place funded by a three-year high-level 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, places without scholarship, place reserved for PhD in collaboration with enterprises and place reserved funded by a three-year high-level apprenticeship contract): based on academic and research record

Methods of evaluation:

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.

The reserved places for the PhD in collaboration with enterprises will be allocated to the candidates reaching the best ranking positions among those who have applied primarily for the reserved places.

The Commission will give a judgment of suitability or otherwise only to those who have expressed their interest in competing for the reserved place covered by the three-year high apprenticeship contract, based on the following assessable aspects

- Italian second level degree "Laurea Magistrale" in Electronic Engineering (degree class LM-29 Electronic Engineering), or equivalent qualification;
- Knowledge in the field of microwaves and in the use of circuit and electromagnetic simulators;
- Experience of using radio frequency and microwave instrumentation;
- Experience with the set-up and use of measurement set-up for electromagnetic compatibility tests.

The judgment of suitability for the reserved place does not affect the score assigned to the candidates, but is only useful to assign the reserved place; this place will be assigned, among the candidates who have expressed a priority interest and have been deemed suitable, to the one with the highest marks in the ranking.

For each of selection procedures 2 to 23

Methods of evaluation:

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.

2) Selection procedure for a place with scholarship with topic “Study and construction of non-invasive medical sensors for reading blood values that are currently not accessible with low-cost technologies”: based on academic and research record

3) Selection procedure for a place with scholarship with topic “Generative learning for visual and language understanding”: based on academic and research record

4) Selection procedure for a place with scholarship with topic “Extension of robotic manipulation capabilities by mobile co-operative systems and flexible multi-robots (Co_MIR)”: based on academic and research record

5) Selection procedure for a place with scholarship with topic “Development of simulation tools for quantum applications of hollow core fibers”: based on academic and research record

6) Selection procedure for a place with scholarship with topic “High performance Big Data Integration for Artificial Intelligence”: based on academic and research record

7) Selection procedure for a place with scholarship with topic “Few Shot Learning applied to Object Detection”: based on academic and research record

8) Selection procedure for a place with scholarship with topic “Privacy Preserving Record Linkage Techniques in Big Data Integration for E-Health”: based on academic and research record

9) Selection procedure for a place with scholarship with topic “Data analysis of the criminal and civil trial in order to structure a predictive system of the times of the trial”: based on academic and research record

10) Selection procedure for a place with scholarship with topic “Deep Learning for Document Understanding e Natural Language Processing”: based on academic and research record

- 11) Selection procedure for a place with scholarship with topic “Novel deep Learning techniques under weakly and uncertain annotation in continuous and batch regime”: based on academic and research record
- 12) Selection procedure for a place with scholarship with topic “Design of electric drives for a more sustainable agriculture”: based on academic and research record
- 13) Selection procedure for a place with scholarship with topic “Design of more-electric tractors for a more sustainable agriculture”: based on academic and research record
- 14) Selection procedure for a place with scholarship with topic “Use of LoRaWAN and ultrawideband technologies for precise localization applications”: based on academic and research record
- 15) Selection procedure for a place with scholarship with topic “Studying host-pathogen interaction via microscopy and Deep Learning: application to antimicrobial resistant bacteria and monoclonal antibodies discovery”: based on academic and research record
- 16) Selection procedure for a place with scholarship with topic “Advances in (Self-attentive and semi-supervised) AI Architectures for large scale, explainable Image Retrieval”: based on academic and research record
- 17) Selection procedure for a place with scholarship with topic “Healthcare applications of Artificial Intelligence, Computer Vision and Medical Imaging”: based on academic and research record
- 18) Selection procedure for a place with scholarship with topic “Tridimensional digitalization of vehicles through computer vision advanced techniques”: based on academic and research record
- 19) Selection procedure for a place with scholarship with topic “Development of high-performance electric motors with the use of finite element analysis, additive manufacturing and special materials”: based on academic and research record
- 20) Selection procedure for two places with scholarship with topic “AI techniques for time series analysis and prediction exploiting structured information”: based on academic and research record
- 21) Selection procedure for a place with scholarship with topic “Power converters for improved efficiency and reliability of electric vehicles”: based on academic and research record
- 22) Selection procedure for a place funded by a three-year research grant with topic “High reliable and sustainable Electrical machines for vehicle electrification”: based on academic and research record
- 23) Selection procedure for a place funded by a three-year research grant with topic “Wide-bandgap based Power converters for improved efficiency and reliability”: based on academic and research record

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).

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 Technology – Paraná (Brasil) that will result in the achievement also of the title of Brazilian PhD in "*Doctor in Electrical and computer engineering*", or a study and research path in collaboration with the University of Nottingham (United Kingdom) which will also lead to the achievement of the title of English PhD in "*Engineering PhD*", or a study and research path in collaboration with the Technische Universität Wien (Austria) which will also lead to the achievement of the title of Austrian PhD as "*Doktor der Technischen Wissenschaften*" or "*Doktor der Naturwissenschaften*".

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)".

4) PhD Programme in “INDUSTRIAL INNOVATION ENGINEERING” (Main centre: Reggio Emilia)

Places with scholarship:

- 7 scholarships without specific topic
- 1* with topic **“Development of artificial intelligence algorithms for the management of robotics applications”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Gaiotto Automation S.p.A.)
- 1* with topic **“Study and development of innovative solutions for heating, ventilation, and air conditioning (HVAC) for near-zero energy building”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Zehnder Group Italia)

*CUP for scholarships with PNRR DM352/2022 funds: E83C22003680004.

Places without scholarships: 2

Places reserved for PhD in collaboration with enterprises:

- 2 employees of K-loops S.r.l., with registered offices in Modena, Via Vivarelli n.2;
- 1 employee of Technology Innovation Institute (TII), with registered offices in Abu Dhabi (UAE), Accelerator 2 building on plot M12, Masdar City;

Reserved places:

- 1 covered by a three-year high apprenticeship contract, funded by **Ceramiche Atlas Concorde S.p.A.**, for carrying out work, training and research activities on the subject of analysis and optimization of intra-logistic processes, with the following characteristics: identification of critical issues and opportunities for improvement in the area of corporate intralogistics in Atlas Concorde; study and sharing of best practices and benchmarks on the problems identified; evaluation and development of models capable of reducing costs

and increasing the efficiency of intra-logistics handling processes, using artificial intelligence techniques such as optimization, simulation, machine learning and their combinations. The apprentice will be hired at the establishment of the Company for treatment in Spezzano di Fiorano Modenese (MO), Via del Canaletto 141, full-time with application of the regulations and economics required by the current National Collective Labor Agreement relating to the Ceramics sector in which the Company operates

The Course provides for three selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must submit an application 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.

Admission requirements (for all selection procedures): Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure (for all selection procedures): 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 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 specific areas of research interest (Statement of Research Interest).
- 5) certification attesting the knowledge of the English language (TOEFL, Proficiency or other);
- 6) GRE (Graduate Record Examination) certificates;
- 7) reference/recommendation letters (between one and three) 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.

Referring to the selection procedure n. 1 indicated below, candidates who meet the requirement (being an employee of the enterprise) and wish to apply primarily for the reserved places for the PhD in collaboration with companies, 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 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, places without scholarship, places reserved for PhD in collaboration with enterprises, and place reserved for the three-year high apprenticeship contract): based on academic and research record

Methods of evaluation:

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.

The Commission has the possibility of conducting a cognitive interview by videoconference (via Skype) on the material presented; The interview does not involve extra score.

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.

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.

For the reserved place for the three-year high apprenticeship contract, the Commission will assign a judgement of suitability or otherwise, limited to those who have expressed their interest, based on the following assessable aspects

- Master's Degree (or equivalent qualification) in Management Engineering (class LM-31 Management Engineering);
- Knowledge in the field of Operations Research related to algorithms and models for logistics and transport;
- Experience in System Integrator;
- Experience in the use of discrete event simulation software;
- Experience in programming.

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.

The reserved places for PhD in collaboration with enterprises will be allocated to the candidates reaching the best ranking positions among those who have applied primarily for the reserved places.

2) Selection procedure for a place with scholarship with topic “Development of artificial intelligence algorithms for the management of robotics applications”: based on academic and research record

Methods of evaluation:

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.

The Commission has the possibility of conducting a cognitive interview by videoconference (via Skype) on the material presented. The interview does not involve extra score. 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 “Study and development of innovative solutions for heating, ventilation, and air conditioning (HVAC) for near-zero energy building”: based on academic and research record

Methods of evaluation:

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.

The Commission has the possibility of conducting a cognitive interview by videoconference (via Skype) on the material presented. The interview does not involve extra score.

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 Ph.D. course in Innovation Industrial Engineering consists of two different curricula: Engineering Management, Mechatronics and Energy Engineering. All two curricula share a strong orientation toward innovation processes.

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)”.

5) PhD Programme “Enzo Ferrari” in INDUSTRIAL AND ENVIRONMENTAL ENGINEERING”

Places with scholarship:

- 6 scholarships without specific topic
- 1* with topic “**Survey, representation and monitoring of cultural heritage; applications of digital techniques to the conservation of cultural heritage; studies and research on materials applied to the conservation and restoration of cultural heritage**” (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Cultural Heritage” for research activities at Goppion Technology and Metropolitan Museum of Art);
- 1* with topic “**Systemic analysis of urban heat island and localized air flows through remote and distributed environmental monitoring**” (with PNRR DM351/2022

funds, Mission 4, Component 1, Investment 4.1 “Public Administration” for research activities at the City of Carpi);

- **1** with topic “Implementation methodologies of Digital Twin virtual models for industrial applications”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Astra Research S.r.l.);

- **1** with topic “Reduction of the Environmental Impact in Robotized, Intelligent and High Efficiency Production of large carbon-fiber automotive components for the structural lightening of new generation vehicles”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at C.P.C. S.r.l.);

- **1** with topic “Virtual prototyping of industrial plants: human-centered design to optimize factory ergonomics”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Iprel Progetti S.r.l.);

**CUP for scholarships with PNRR DM351/2022 funds: E93C22001210006.*

***CUP for scholarships with PNRR DM352/2022 funds: E93C22001160004.*

Places without scholarships: 1

Places reserved for PhD in collaboration with enterprises:

- 1 employee of TEC Eurolab S.r.l., with registered offices in Campogalliano (MO), Viale Europa, 40;

- 1 employee of Tetra Pak Packaging Solutions S.p.A., with registered offices in Modena, Via Antonio Delfini, 1;

Reserved Places:

- **4** for scholarship holders from foreign Countries

The Course provides for six selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must submit an application 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) any certification attesting to knowledge of the English language (TOEFL, Proficiency or other);
- 7) any GRE (Graduate Record Examination) certificates;
- 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.

Referring to the selection procedure n. 1 indicated below, candidates who meet the requirement (being an employee of the enterprise) and wish to apply primarily for the

reserved places for the PhD in collaboration with companies, 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 place for candidates with scholarship of foreign Countries must fill in and attach to the online application form the facsimile "*Annex D4*" 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.

Admission requirements (for all selection procedures): Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

1) Main selection procedure (for places with scholarship without specific topic, place without scholarship, places reserved for PhD in collaboration with enterprises, and place reserved for scholarship holders from foreign Countries): 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 reserved places for PhD in collaboration with enterprises will be allocated to the candidates reaching the best ranking positions among those who have applied primarily for the reserved places.

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.

2) Selection procedure for a place with scholarship with topic "Survey, representation and monitoring of cultural heritage; applications of digital techniques to the conservation of cultural heritage; studies and research on materials applied to the conservation and restoration of cultural heritage": 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 “Systemic analysis of urban heat island and localized air flows through remote and distributed environmental monitoring”: 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 “Implementation methodologies of Digital Twin virtual models for industrial applications”: 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.

5) Selection procedure for a place with scholarship with topic “Reduction of the Environmental Impact in Robotized, Intelligent and High Efficiency Production of large carbon-fiber automotive components for the structural lightening of new generation vehicles”: 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.

6) Selection procedure for a place with scholarship with topic “Virtual prototyping of industrial plants: human-centered design to optimize factory ergonomics”: 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, Civil and Environmental Engineering and Materials Engineering.

In the present Cycle, the Course is structured around three curricula: the first one is named "Industry 4.0", another is named "Vehicle Engineering", and the third one is named "Civil and Environmental Engineering".

These are the educational objectives, common to all PhD students: advanced training in the various areas of industrial and environmental 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 "Industry 4.0" 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.

The Teaching Committee may propose to one or more students enrolled, considered suitable, a programme of study and research in collaboration with the Chinese University of Fuzhou that will result in the achievement also of the title of Chinese PhD in "Doctor in Engineering" as well as with the Federal University of Technology del Paraná (Brazil) that will result in the achievement also of the Brazilian PhD title in "Doctor in Mechanical Engineering and Materials".

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-enzoferri.unimore.it/site/home/research.html>

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

6) PhD Programme in "LABOUR, DEVELOPMENT AND INNOVATION"

Places with scholarship:

- **16** without specific topic (of which **8** are financed by the Ministry of University and Research, **3** by the University of Modena and Reggio Emilia, **2** by Modena Foundation ("Fondazione di Modena"), **3** by external public and private institutions)

- **1* with topic "Gender budgeting and gender impact of public policies. Theoretical foundations, expenditure reclassification methodologies and applications to the State Budget"** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 "Public Administration", for research activities at Ministry of Economy and Finance and a research period abroad at the Interdisciplinary Center for Feminist, Women and Gender Studies (CINEF) e Gender Observatory (GEP&Do) – University of Pablo de Olavide, Seville with the possibility of participating in the doctoral programme in international co-tutorship with the University Pablo de Olavide, Seville on the basis of the international co-tutorship agreement for doctoral studies between the two universities or at the WiSE Centre for Economic Justice - Glasgow Caledonian University)

- **1* with topic "Development of a modern management control system for the design of public policies, impact analysis, sustainability assessment and improvement of the diagnostic capacity of Public Administrations"** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 "Public Administration", for

research activities at the City of Modena and a research period at a research centre/university abroad)

- **1* with topic “Sustainable & data-driven HRM”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration”, for research activities at the Human Resources Development, Organisation and Service Communication Department of the Resources, Europe, Innovation and Institutions Directorate of the Emilia Romagna Region and abroad at the Department of Human Resource Management of the University of Twente)

- **1* with topic “Gender budgeting and ex-ante evaluation of public policies”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration”, for research activities at the Social, Inclusion and Equal Opportunities Policies Sector, General Directorate for Personal Care, Health and Welfare; Human Resources Development, Organisation and Service Communication Sector of the Resources, Europe, Innovation and Institutions Directorate of the Emilia Romagna Region and abroad at the Interdisciplinary Center for Feminist, Women and Gender Studies (CINEF) e Gender Observatory (GEP&Do) – University of Pablo de Olavide, Seville with the possibility of participating in the doctoral programme in international co-tutorship with the University Pablo de Olavide, Seville on the basis of the international co-tutorship agreement for doctoral studies between the two universities or at the WiSE Centre for Economic Justice - Glasgow Caledonian University)

**CUP for scholarships with PNRR DM351/2022 funds: E93C22001220006*

Places without scholarship: 1

Places reserved for PhD in collaboration with enterprises:

- 1 employee of Culligan Italiana S.p.A, with registered offices in Cadriano di Granarolo dell'Emilia (BO), Via Gandolfi, 6;
- 1 employee of FIN SERVICE S.r.l, with registered offices in Mantova, Via Baldassarre Castiglioni, 3;
- 2 employees of TEAMLINE S.r.l., with registered offices in Mantova, Galleria San Maurizio, 6.

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 270/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure (for all the 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 submit an application 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 curricula Programme 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.

Referring to the selection procedure n. 1 indicated below, candidates who meet the requirement (being an employee of the enterprise) and wish to apply primarily for the reserved places for the PhD in collaboration with companies, must fill in and attach to the online application form the facsimile "*Annex D2*" 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 and places reserved for PhD in collaboration with enterprises): 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 September 5th and 6th, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Labour, development and innovation.

Candidates may opt to have their interview in English.

The reserved places for the doctorate in collaboration with enterprises will be allocated to the candidates reaching the best ranking positions among those who have applied primarily for the reserved places.

2) Selection procedure for a place with scholarship with topic “Gender budgeting and gender impact of public policies. Theoretical foundations, expenditure reclassification methodologies and applications to the State Budget”: 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 September 5th and 6th, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Labour, development and innovation.

Candidates may opt to have their interview in English.

3) Selection procedure for a place with scholarship with topic “Development of a modern management control system for the design of public policies, impact analysis, sustainability assessment and improvement of the diagnostic capacity of Public Administrations”: 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 September 5th and 6th, 2022, only on the University website at <https://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Labour, development and innovation.

Candidates may opt to have their interview in English.

4) Selection procedure for a place with scholarship with topic “Sustainable & data-driven HRM”: 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 September 5th and 6th, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Labour, development and innovation.

Candidates may opt to have their interview in English.

5) Selection procedure for a place with scholarship with topic “Gender budgeting and ex-ante evaluation of public policies”: 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 September 5th and 6th, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Labour, development and innovation.

Candidates may opt to have their interview in English.

Areas of the PhD Programme: The course consists of two curricula: Labour, Development and Innovation, and Industry 4.0.

The Labour, Development and Innovation curriculum is intended to enable the participants to acquire an in-depth understanding of employment relations and socio-economic change in an interdisciplinary perspective, focusing on the main regulatory levels (law, management, economics and organisation) and related methods of analysis in order to develop research instruments addressing both legal and non-legal labour regulation, enterprise innovation (industrial, service, public) and economic and territorial development. Industry 4.0 is intended to contribute to an understanding of the dynamics of digital transformation and elaboration of the legal, economic and financial, organisational and managerial instruments to govern the transformation of the enterprise and organisations in light of Industry 4.0. The teaching and research programme favours the datafication of employment and production processes associated with digitalisation resulting in a significant transformation of the logic and instruments of enterprise management.

Coordination with the E4E School and courses “Enzo Ferrari” of Industrial and Environmental Engineering, in Industrial Innovation Engineering and in Information and Communication Technologies (ICT) will enhance the interdisciplinary approach since the teaching activities related to the main technologies and technological trajectories of Industry 4.0.

Both curricula investigate the following research areas:

- Transformation of work, innovation and business models;
- Autonomy, discretion and performance appraisal in the digital enterprise;
- Engineering economics, sustainable finance and financial innovation;
- Corporate sustainability;
- Health, safety, disability, work and care;
- Gender equality: theories, measurement, policies and reporting tools;
- Certification of contracts ex art. 75 ff. Legislative Decree 276/2003;
- Personal data protection, Artificial Intelligence, Regulation of digital markets;
- Socioeconomic impact of exogenous shocks and recovery strategies;
- Composite Indicators, Machine Learning and Big Data;
- Iconographies of work.

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: September 9th 2022, 10:00 a.m. Interviews could continue on September 12th 2022, 9:00 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 Google Meet (allowed for each candidate, regardless of residence):

September 9th 2022, 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 Google Meet, see Article 5 of this Call.

EXAM SCHEDULE – SELECTION PROCEDURES 2, 3, 4, AND 5

In-person interview: September 12th 2022, 12:00 a.m. The examination will take place in Lecture Room of the Marco Biagi Foundation, Largo Marco Biagi 10, Modena.

Interview via Google Meet (allowed for each candidate, regardless of residence):
September 12th 2022, 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 Google Meet, see Article 5 of this Call.

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

Places with scholarship:

- 8 scholarships without specific topic;
- 1* with topic: **“Development of innovative extraction and analytical processes of active ingredients derived from botanicals grown with alternative methods”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at G2B S.r.l.)
- 1* with topic: **“Innovative methodologies for the synthesis of *biobased* monomers and polymers”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Litokol S.p.A.)
- 1* with topic: **“Design, Synthesis and Characterization of Recyclable polymeric networks for high-technology applications”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Versalis S.p.A.)

**CUP for scholarships with PNRR DM352/2022 funds: E93C22001170004*

Places without scholarship: 1

Places reserved for PhD in collaboration with enterprises:

- 1 employee of LB Officine Meccaniche S.p.A, with registered offices in Fiorano Modenese (MO), Via Pedemontana, n. 166.

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection procedures (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 submit an application 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 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 XXXVIII 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).

Referring to the selection procedure n. 1 indicated below, candidates who meet the requirement (being an employee of the enterprise) and wish to apply primarily for the reserved places for the PhD in collaboration with companies, must fill in and attach to the online application form the facsimile "*Annex D2*" of this call.

1) Main Selection Procedure (for places with scholarship without specific topic, place without scholarship and place reserved for PhD in collaboration with enterprises): 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 22nd and 23rd, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html>, in the section relating to the PhD Programme in Models and methods for material and environmental sciences. Candidates may opt to have their interview in English.

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 40/60 will be considered eligible.

The reserved place for the doctorate in collaboration with enterprises will be allocated to the candidate reaching the best ranking positions among those who have applied primarily for the reserved place.

2) Selection procedure for a place with scholarship with topic “Development of innovative extraction and analytical processes of active ingredients derived from botanicals grown with alternative methods”: 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 22nd and 23rd, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html>, in the section relating to the PhD Programme in Models and methods for material and environmental sciences. Candidates may opt to have their interview in English.

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 40/60 will be considered eligible.

3) Selection procedure for a place with scholarship with topic “Innovative methodologies for the synthesis of *biobased* monomers and polymers”: 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 22nd and 23rd, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html>, in the section relating to the PhD Programme in Models and methods for material and environmental sciences. Candidates may opt to have their interview in English.

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 40/60 will be considered eligible.

4) Selection procedure for a place with scholarship with topic “Design, Synthesis and Characterization of Recyclable polymeric networks for high-technology applications”: 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 22nd and 23rd, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html>, in the section relating to the PhD Programme in Models and methods for material and environmental sciences. Candidates may opt to have their interview in English.

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 40/60 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'.

The professors board may propose to one or more of the enrolled PhD students, who are deemed suitable, a study and research programme collaboration with the French University of Lille that will also allow them to obtain the French title of PhD in "*Sciences de la matière, du rayonnement et de l'environnement*".

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 XXXVIII.

EXAM SCHEDULE – MAIN SELECTION

In-person interview: September 5th 2022, 9:00 a.m. Interviews could continue on September 6th 2022, 9:00 a.m., should there be a high number of candidates.

The examination will take place in the Uint. 3 - Computer Room of the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

Interview via Google Meet (allowed for each candidate, regardless of residence):

September 5th 2022, 9:00 a.m. Interviews could continue on September 6th 2022, 9:00 a.m., should there be a high number of candidates.

The examination will take place in the Uint. 3 - Computer Room of the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

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

EXAM SCHEDULE – SELECTION PROCEDURES 2, 3 AND 4

In-person interview: September 5th 2022, 2:00 p.m. Interviews could continue on September 6th 2022, 2:00 p.m., should there be a high number of candidates.

The examination will take place in the Uint. 2 - Microscope Room of the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

Interview via Google Meet (allowed for each candidate, regardless of residence):

September 5th 2022, 2:00 p.m. Interviews could continue on September 6th 2022, 2:00 p.m., should there be a high number of candidates.

The examination will take place in the Uint. 2 - Microscope Room of the Department of Chemical and Geological Sciences, Via Giuseppe Campi, 103, Modena.

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

8) PhD Programme in “MOLECULAR AND REGENERATIVE MEDICINE”

Places with scholarship:

- 4 scholarships without specific topic (of which 1 is funded by ERC project Holo-GT – Horizon 2020 GA101019289 – CUP E55F21001830006T)

- 1* with topic “**Engineering of cell lines and their use for the production of viral vectors**” (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at ReiThera S.r.l.)

*CUP for scholarships with PNRR DM352/2022 funds: E93C22001180004

Places without scholarship: 1

Selection Procedure: based on academic and research record and interview

The Course provides for two selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must submit an

application 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 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 Italian or 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 written in English – no longer than two pages – which 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) only 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.

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

Admission requirements: Italian second level degree (“laurea magistrale”, under D.M. 207/04) in the following discipline: 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 level 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 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; obtained prior to D.M. 509/99); or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of the 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, and 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 30/60 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 publicly in a date between August 30th and 31st, 2022 on the University website at <http://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Molecular and regenerative medicine.

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.

2) Selection procedure for a place with scholarship with topic “Engineering of cell lines and their use for the production of viral vectors”: based on academic and research record and interview

Admission requirements: Italian second level degree (“laurea magistrale”, under D.M. 207/04) in the following discipline: LM-6 Biology, LM-8 Industrial biotechnology, LM-9 Medical, veterinary and pharmaceutical biotechnology (or equivalent: Italian second level 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; Italian degree in Biological Sciences, in Agro-industrial Biotechnology, in Biotechnology (curriculum Industrial Biotechnology or Pharmaceutical Biotechnology or Medical Biotechnology or Veterinary Biotechnology), obtained prior to D.M. 509/99); equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of the 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, and 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 30/60 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 publicly in a date between August 30th and 31st, 2022 on the University website at <http://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Molecular and regenerative medicine.

Candidates may opt to have their interview in English.

The interview consists of:

- an evaluation of basic knowledge of cell biology and molecular biology
- a discussion on the research activity previously carried out and on the research interests expressed in the Statement of Research Interest.
- an evaluation of knowledge of viral vector production and cell line engineering methods.
- 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 – MAIN SELECTION

In-person interview: September 6th 2022, 10:00 a.m. Interviews could continue on September 9th 2022, 10:00 a.m., should there be a high number of candidates.

The examination will take place in a classroom of the Centro di Medicina Rigenerativa, via Gottardi 100, Modena.

Interview via Google Meet (allowed for each candidate, regardless of residence):

September 6th 2022, 4:00 p.m. Interviews could continue on September 9th 2022, 4:00 p.m., should there be a high number of candidates.

EXAM SCHEDULE – SELECTION PROCEDURE 2

In-person interview: September 6th 2022, 10:00 a.m. Interviews could continue on September 9th 2022, 10:00 a.m., should there be a high number of candidates.

The examination will take place in a classroom of the Centro di Medicina Rigenerativa, via Gottardi 100, Modena.

Interview via Google Meet (allowed for each candidate, regardless of residence):

September 6th 2022, 4:00 p.m. Interviews could continue on September 9th 2022, 4:00 p.m., should there be a high number of candidates.

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

9) PhD Programme in “NEUROSCIENCES”

Places with scholarship:

- **4** without specific topic (1 of which is co-financed with funds from MIUR Call "Department of Excellence 2018-2022" - Department of Biomedical, Metabolic and Neural Sciences - University of Modena and Reggio Emilia - CUP: E91I18001480001)

Places without scholarship: 1

Places reserved:

- **2** funded by a three-year research grant (Title of the research project: **Hybrid enhanced regenerative medicine systems** – Tutor: Prof. Giulia Curia – SSD: BIO/09 Physiology – yearly amount of the grant (gross amount): € 19.367,00 (with funds from H2020 HERMES- Department of Biomedical, Metabolic and Neuroscience Sciences, and University of Modena and Reggio Emilia - CUP: E96C18001630007)

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M.

509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure: based on academic and research record, written test and interview

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 additional documents:

Evaluation of qualification (60 points):

- 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.

Candidates who intend to apply primarily for reserved positions funded by a three-year research grant, must fill in and attach to the online application form the facsimile "*Annex D3*" of this call.

For research grant with title "**Hybrid enhanced regenerative medicine systems**", the Selection Committee will decide whether to admit or not only those who have applied primarily for a reserved position based on the following evaluable aspects:

- documented research activity or dissertation on the topics of the research grant;
- relevance of the research project to the topics of the research grant;
- quality of the research project.

Written examination (60 points):

The Written Exam for the issues related to Neurosciences is a written report on any of these topics:

- 1) The genesis of nerve impulses;
- 2) the synapse;
- 3) the reflexes;
- 4) molecular and cellular basis of signal transduction;
- 5) the motor system;
- 6) the visual system;
- 7) the somatosensory system;
- 8) neurobiology of language;
- 9) neurobiology of attention;
- 10) memory and learning;
- 11) prenatal and postnatal development of the nervous system;
- 12) social cognition: the candidate introduces the topic in a general way and explains in detail a research topic in the field of social cognition;
- 13) visualization techniques of mental activities: the candidate introduces the topic in a general way and explains in detail a visualization technique;
- 14) the relationship between perception and action: the candidate introduces the topic in a general way and explains in detail a research topic in the field of the relationship between perception and action;

- 15) the emotional experience: the candidate introduces the topic in a general way and explains in detail a research topic in the field of emotional experience;
- 16) attention and executive functions: the candidate introduces the topic in a general way and explains in detail a research topic in the field of attention and executive functions;
- 17) language: the candidate introduces the topic in a general way and explains in detail a research topic in the field of the mental mechanisms involved in linguistic processing.

The Written Exam for the Behavioural Sciences curriculum is a written report on any of these topics:

- 1) Classification and differences in post-traumatic disorders induced by adverse events and by violence, abuse and maltreatment in developmental age;
- 2) Changes in personality structures induced by physical violence in the family or school;
- 3) Protective factors and processes of spontaneous resilience induced by psychotherapeutic treatments or educational interventions, by the effects of violence and mistreatment suffered in childhood;
- 4) Cognitive and emotional impact of new communication technologies on personality development;
- 5) Educational actions to prevent acts of violence in the school and socio-educational context;
- 6) Genetic and environmental factors that influence the development of communication and relational skills;
- 7) Inter-individual differences and health decisions: determinants of adherence to treatments for patients in developmental and adult age;
- 8) The implicit inferences of social and health workers and their impact on the relationship with patients in developmental and adult age;
- 9) Neural and cognitive mechanisms for the perception of others in development and adulthood;
- 10) The paradigm of the gene-environment relationship applied to childhood trauma (active, passive and evocative) and implications on psychopathology in adulthood;
- 11) The use of polygenic risk scores in psychiatric research;
- 12) The bio-psycho-social paradigm: scientific foundations and impact in contemporary clinical practice;
- 13) Psycho-neuro-endocrine-immunological re-reading of the medical-psychiatric comorbidity;
- 14) The neurobiological basis of stress;
- 15) Genetic and environmental factors in neurodevelopmental disorders with onset in early childhood;
- 16) Neural and cognitive mechanisms involved in Autism Spectrum Disorder and ADHD;
- 17) Psychological and neurobiological mechanisms underlying the changes during psychotherapy or rehabilitation intervention;
- 18) Psychological and neurobiological characteristics of adolescence;

At the beginning of the examination (which will last a maximum of one hour) three topics for Neuroscience and four for Behavioural Sciences are randomly chosen among those listed above, one of which can be chosen by the candidate for her/his written report.

Interview (60 points):

The Interview 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. 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 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 90/180 will be considered eligible.

The reserved places covered by a three-year research grant will be allocated to the candidates reaching the best ranking positions among those who have applied primarily for the reserved places and have been deemed suitable.

Areas of the PhD Programme: The doctorate includes two thematic areas: Neurosciences, with a strong interdisciplinary approach from molecular and cellular neurosciences, to neuro and psychopharmacology, to cognitive and social neurosciences, to psychology and clinical neurosciences. Behavioral Sciences, focused on the study of the development of communication and relational skills, the risk and protection factors of emotional, cognitive and personality development, and the endogenous and exogenous risk factors for main psychic 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: September 1st, 2022, 9:00 am. room Lab. Inf. CS1.5 - [MO 36] - Centro Servizi (Medicina-Policlinico), Largo del Pozzo, 71, Modena.

Interview, in presence or via Microsoft Teams (allowed for each candidate, regardless of residence): September 2nd 2022, 9:00 a.m., aula grande di Fisiologia, MO15 building, Via Giuseppe Campi 287, Modena. Interviews could continue on September 5th 2022, 9:00 a.m., aula grande di Fisiologia, MO15 building, Via Giuseppe Campi 287, Modena, should there be a high number of candidates.

The Selection Committee will send by e-mail the operational indications on how to conduct the interview via Microsoft Teams.

10) PhD Programme in “PHYSICS AND NANO SCIENCES”

Places with scholarship:

- 5 without specific topic;

- 1 with topic “Quantum Electron Microscopy”;

Places without scholarship: 1

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection procedures (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 submit an application 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 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 (one 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 motivations for attending the Course (max 1/2 page)

- Description of a short research project - divided into introduction, state of the art, and possible lines of development - based on the research topic proposed for the XXXVIII cycle and listed on the website

<http://www.nano-phdschool.unimore.it/site/home/topics.html> (for selection 1)

- Description of a short research project - divided into introduction, state of the art, and possible lines of development - based on the research topic proposed on the website <http://www.qsort.eu/> (for selection 2).

1) Main Selection Procedure (for places with scholarship without specific topic and place without scholarship): based on academic and research record 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 29th and 30th, 2022 on the University website at <http://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Physics and Nano-sciences.

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 50/100 will not be considered eligible for admission to the course.

2) Selection procedure for a place with scholarship with topic: “Quantum Electron Microscopy”: based on academic and research record 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 29th and 30th, 2022 on the University website at <http://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Physics and Nano-sciences.

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 50/100 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: <http://www.nano-phdschool.unimore.it/site/home/topics/>.

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

EXAM SCHEDULE

Selection 1

Interview via Google Meet: September 5th, 2022, 9.00 am. Interviews could continue on September 6th, 2022 9:00 am, should there be a high number of candidates.

Selection 2

Interview via Google Meet: September 5th, 2022, 9.00 am. Interviews could continue on September 6th, 2022 9:00 am, should there be a high number of candidates.

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

11) PhD Programme in “REGGIO CHILDHOOD STUDIES” (Main centre: Reggio Emilia)

Places with scholarship: 7 (of which 2 industrial PhD scholarships funded by Reggio Children Foundation – Centro Loris Malaguzzi)

Places without scholarship: 2

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection Procedure: based on academic and research record and interview

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.

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 24th and 25th, 2022 only on the University website at <https://www.unimore.it/didattica/doctorates.html> in the section relating to the PhD Programme in Reggio childhood studies.

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: Space and environment as elements that contribute to structuring learning processes; play and learning in the digital age; cognitive and emotional group processes, co-construction of a learning community cultural; the theory and practice of uniqueness and differences that in social, cultural, anthropological and religious contexts; the aesthetic dimensions as a constituting element of learning processes.

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/> .

EXAM SCHEDULE

In-person interview: August 30th, 2022, 9:30 am. Interviews could continue on August 31st, 2022 9:30 am, should there be a high number of candidates,

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

Interview via Microsoft Teams (allowed for each candidate, regardless of residence): August 30th 2022, 9:30 a.m. Interviews could continue on August 31st 2022, 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.

12) PhD Programme in “HUMAN SCIENCES”

Places with scholarship:

- **8** without specific topic (3 of which are financed with funds from MIUR Call "Department of Excellence 2018-2022" - Department of Studies on Language and Culture - University of Modena and Reggio Emilia - CUP: E91I18001500001 – field “ Digital Humanities and digital communication”)

- **1* with topic “Cultural Planning: documentary heritage and its exploitation”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Cultural Heritage”, for research activities at Academy of Sciences, Letters and Arts of Modena)

- **1* with topic “Active Citizenship in the development of local policies”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration”, for research activities at the Emilia Romagna Region)

- **1* with topic “Communicating Cultural Heritage in public administration”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration”, for research activities at the Emilia Romagna Region)

- **1* with topic “Change in the digital transition: cultural heritage”** (with PNRR DM351/2022 funds, Mission 4, Component 1, Investment 4.1 “Public Administration”, for research activities at the Emilia Romagna Region)

**CUP for scholarships with PNRR DM351/2022 funds: E93C22001240006*

Places without scholarship: 3

Places reserved:

- 1 without scholarship for candidates with a degree awarded by a foreign University.
- 1 for candidates with scholarship of foreign Countries:

Places reserved for PhD in collaboration with enterprises:

- 1 employee of TICE Cooperativa Sociale, with registered offices in Alta Val Tidone (PC), Località Seguzzone 3.

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection procedure (for all selection procedures): The Course provides for seven selection procedures depending on the type of places available. Candidates interested in more than one selection procedure must submit an application 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.

Referring to selection procedure n. 1 mentioned below, candidates who meet the requirement (being an employee of the enterprise) and wish to apply primarily for the reserved places for the PhD in collaboration with companies, must fill in and attach to the online application form the facsimile "*Annex D2*" of this call.

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

Referring to selection procedure n. 6 mentioned below, candidates must upload the documentation proving possession of the scholarship or the start of the application procedure to obtain it, to the online admission application.

1) Main selection procedure (for places with scholarship without specific topic, places without scholarship and place reserved for PhD in collaboration with enterprises): 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 25th and 26th, 2022 on the University website at page <http://www.unimore.it/didattica/doctorates.html>, in the section relating to the PhD Programme in Human Sciences.

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.

The reserved places for the PhD in collaboration with enterprises will be allocated to the candidate reaching the best ranking positions among those who have applied primarily for the reserved places.

2) Selection procedure for a place with scholarship with topic “Cultural Planning: documentary heritage and its exploitation”: 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

3) Selection procedure for a place with scholarship with topic “Active Citizenship in the development of local policies”: 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

4) Selection procedure for a place with scholarship with topic “Communicating Cultural Heritage in public administration”: 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

5) Selection procedure for a place with scholarship with topic “Change in the digital transition: cultural heritage”: 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

6) Selection procedure for place reserved to candidates with scholarship of foreign Countries: 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.

The Selection committee will verify the presentation of the documentation proving the possession of the scholarship or the start 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 places without scholarship reserved for candidates with a degree awarded by a foreign University: 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 admission if the evaluation of qualifications presented has a score of at least 40 points out of the 60 available.

Areas of the PhD Programme: a) *Digital Humanities and Digital communication*; b) *Language and Culture Studies* (English, French, German, Italian and Spanish studies): discourse analysis and specialized discourse, translation studies; c) *History and Philosophy*: theoretical philosophy, philosophy of language, moral philosophy and history of ideas; modern and contemporary History; sovereignty and nationalism, church and

modernity d) *Intercultural Education and Communication*: sociology of communication, educational practices and processes.

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

(Selection 1 – Main)

In-person interview: August 31st, 2022, 9:30 a.m. Interviews could continue on September 1st, 2022 9:00 a.m., should there be a high number of candidates,

The examination will take place in the B.1.6 Room of Department of Studies on Language and Culture, Largo Sant'Eufemia, 19, Modena.

Interview via Google Meet (allowed for each candidate, regardless of residence):

August 31st, 2022, 9:30 a.m. Interviews could continue on September 1st, 2022 9:00 a.m., should there be a high number of candidates.

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

13) PhD Programme in “FOOD AND AGRICULTURAL SCIENCE, TECHNOLOGY AND BIOTECHNOLOGY” (Main centre: Reggio Emilia)

Places with scholarship:

- **5** scholarships without specific topic;
- **1** with topic **“Production of new lytic polysaccharide monooxygenases with enhanced activity for food and agricultural waste valorization”** (co-financed with funds from Department of Life Sciences - University of Modena and Reggio Emilia on PRIN funds - CUP E53C20013650001)
- **1** with topic **“Innovation in durum wheat breeding”**
- **1** with topic **“Study and exploitation of Brassicales plant species attracting honeybees and other pollinators, for providing and/or enhancing ecological services in agriculture”**
- **1*** with topic **“Quality control and safety of the Agri-Food chain: analysis of chemical / microbiological food quality, using innovative tailor-made IoT nanosensors. The setting-up of a data base and machine learning algorithms”** (with PNRR DM352/2022 funds, Mission 4, Component 2, Investment 3.3 for research activities at Kemin Industries)

**CUP for scholarships with PNRR DM352/2022 funds: E93C22001190004*

Places without scholarship: 2

Places reserved for PhD in collaboration with enterprises:

- **1** employee of BOWEG UG, with registered offices in Quakenbrück (Germany), Professor-von-Klitzing-Straße 11

Admission requirements: Italian second level degree (laurea specialistica, under D.M. 509/99 or laurea magistrale, under D.M. 207/04) or Italian degree obtained prior to D.M. 509/99 or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of this application procedure.

Selection procedures (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 submit an application 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 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 XXXVIII 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.

Referring to the selection procedure n. 1 indicated below, candidates who meet the requirement (being employee of the enterprise) and wish to apply primarily for the reserved places must fill in and attach to the online application form the facsimile "*Annex D2*" 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 scholarships without specific topic, for places without scholarship, and for place reserved for PhD in collaboration with enterprises): 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.

The reserved place for PhD in collaboration with enterprises will be allocated to the candidate reaching the best ranking position among those who have applied primarily for the reserved place.

2) Selection procedure for a place with scholarship with topic “Production of new Lytic Polysaccharide Monooxygenases with enhanced activity for food and agricultural waste valorization”: 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 place with scholarship with topic “Innovation in durum wheat breeding”: 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 place with scholarship with topic “Study and exploitation of Brassicales plant species attracting honeybees and other pollinators, for providing and/or enhancing ecological services in agriculture”: 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.

5) Selection procedure for a place with scholarship with topic “Quality control and safety of the Agri-Food chain: analysis of chemical / microbiological food quality, using innovative taylor-made IoT nanosensors. The setting-up of a data base and machine learning algorithms”: 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 deals with the production, processing, quality and safety of raw materials and of food.

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 website of the PhD course at: <http://www.steba.unimore.it>

Modena, 29/06/2022

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
(XXXVIII 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

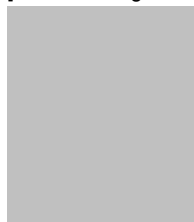
Signature

ANNEX B2 (to be used only for applications to the PhD Programme in Food and agricultural science, technology and biotechnology)

CURRICULUM VITAE

PERSONAL INFORMATION

[All CV headings are optional. Remove any empty headings.]



Replace with First name(s) Surname(s)

📍 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 name of language certificate (if any). Enter level if known.				

Replace with language

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 the purposes of the application for enrolment on the Doctoral Research Programme (XXXVIII cycle) by

Name and surname

Title of the project

Curriculum (not binding choice; please mark the preferred option)

- ☐ Labour, development and innovation
- ☐ Industry 4.0

Research Areas: (not binding choice; please mark the preferred option)

- ☐ Transformation of work, innovation and business models
- ☐ Autonomy, discretion and performance appraisal in digital enterprise;
- ☐ Engineering economics, sustainable finance and financial innovation;
- ☐ Corporate sustainability;
- ☐ Health, safety, disability, work and care;
- ☐ Gender equality: theories, measurement, policies and reporting tools;
- ☐ Personal data protection, Artificial Intelligence, Regulation of digital markets;
- ☒ Socioeconomic Impact of exogenous shocks and recovery strategies
- ☐ Composite indicators, Machine learning and Big data
- ☐ Iconographies of work
- ☐ Other (specify)

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 Food and agricultural 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 XXXVIII 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 “**Computer and data science for technological and social innovation**”:

- ☐ n. 1 place with apprenticeship contract for advanced training financed by Minerva System S.r.l. Company for work, training and research activities on the issue of high-performance system software or high predictability....
- ☐ n. 1 place with apprenticeship contract for advanced training financed by Evidence S.r.l. Company for work, training and research activities on the subject of design and development of multicore operating systems.

- PhD Programme in “**Information and communication technologies (ICT)**”:

- ☐ n. 1 place with apprenticeship contract for advanced training financed by Embit S.r.l. Company for work, training and research activities on the subject of topics of antennas, electromagnetic Compatibility (EMC) and electromagnetic simulations.

- PhD Programme in “**Industrial Innovation Engineering**”:

- ☐ n. 1 place with apprenticeship contract for advanced training financed by Ceramiche Atlas Concorde S.p.A. Company for work, training and research activities on the subject of analysis and optimization of intra-logistic processes....

The option hereby chosen has priority over regular places, with or without scholarship.

Date and place,

Signature

Annex D2 (PhD in collaboration with companies)

DECLARATION OF PRIORITARY INTEREST FOR THE FOLLOWING RESERVED PLACE

I, _____ (*full name*),
born in _____ (*place*) on _____ (*date*)
employee of the Company _____
with contract _____
wish to express my interest in applying primarily for the following reserved place (please tick one of the following options)

- PhD Programme in “**Information and communication technologies (ICT)**”:

- ☐ n. 2 places reserved for employees of Altilia S.r.l.
- ☐ n. 1 place reserved for employees of Datalogic S.p.A.
- ☐ n. 1 place reserved for employees of DataRiver S.r.l.
- ☐ n. 1 place reserved for employees of Prometeia S.p.A.
- ☐ n. 1 place reserved for employees of STMicroelectronics S.r.l.

PhD Programme in “**Industrial innovation engineering**”:

- ☐ n. 2 places reserved for employees of K-loops S.r.l.
- ☐ n. 1 place reserved for employees of Technology Innovation Institute (TII)

- PhD Programme “Enzo Ferrari” in “**Industrial and environmental engineering**”:

- ☐ n. 1 place reserved for employees of Tec Eurolab S.r.l.
- ☐ n. 1 place reserved for employees of Tetra Pack Packaging Solutions S.p.A.

- PhD Programme in “**Labour, development and innovation**”

- ☐ n. 1 place reserved for employees of Culligan Italiana S.p.A.
- ☐ n. 1 place reserved for employees of Fin Service S.r.l.
- ☐ n. 1 place reserved for employees of Teamline S.r.l.

- PhD Programme in “**Models and methods for material and environmental sciences**”

- ☐ n. 1 place reserved for employees of LB Officine Meccaniche S.p.A.

- PhD Programme in “**Human sciences**”:

- ☐ n. 1 place reserved for employees of TICE Cooperativa Sociale

- PhD Programme in “**Food and agricultural science, technology e biotechnology**”:

- ☐ n. 1 place reserved for employees of BLOWEG UG

The option hereby chosen has priority over regular places, with or without scholarship.

Date and place,

Signature

Annex D3 (Three-year research grant)

DECLARATION OF PRIORITARY INTEREST FOR THE FOLLOWING RESERVED PLACE

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 “**Neurosciences**”

- ☐ n. 2 places funded by a three-year research grant “**Hybrid enhanced regenerative medicine systems**”

The option hereby chosen has priority over regular places, with or without scholarship.

Date and place,

Signature

Annex D4 (candidates with scholarship provided by foreign States)

DECLARATION OF PRIORITARY INTEREST FOR THE FOLLOWING RESERVED PLACE

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 “**Industrial and environmental engineering**”:

- ☐ n. 4 places 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. 2022/2023 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. 2022/2023, XXXVIII 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 a false declaration,

DECLARE

- a) **not to hold**, for the entire duration of the doctorate, other study grants of any title whatsoever, 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 No.398 of 30.11.1989);
- b) **not to have held**, even if only for one year, another study grant to pursue postgraduate courses (art. 6, para 2, Law 398/89);
- c) **not to hold** a grant for collaboration in a research activity under art. 51, para 6, Law 449/97 and D.M. II.02.1998
- d) to be aware of the rights and obligations of graduates, as specified in the notices of competitions for admission to PhD Programmes, XXXVIII cycle – A.Y. 2022/2023, published on the internet site of the University of Modena and Reggio Emilia;
- e) to have read and fully understood the regulatory provisions governing research doctorates, as published on the internet site of the University of Modena and Reggio Emilia.
- f) 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, 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 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. 2022/2023, XXXVIII

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 – section “Iscrizione dei lavoratori parasubordinati alla Gestione Separata” <https://www.inps.it/nuovoportaleinps/default.aspx?itemdir=50175> – select “Accedi al 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, 2022 (*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 purpose 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. 2022/2023, XXXVIII 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, XXXVIII cycle – A.Y. 2022/2023, 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