

## DEADLINE FOR APPLICATIONS: October 28<sup>th</sup>, 2021 1:00 pm (Italian time CET)



UNIONE EUROPEA  
Fondo Europeo di Sviluppo Regionale



UNIMORE  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA

Student Services Area  
PhD Office

Rector's Decree No.1142/2021  
Prot. No 252754 of 12/10/2021

### THE RECTOR

- GIVEN the Statute of the University of Modena and Reggio Emilia, enacted by Rector's Decree n.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 n.390 of December 2, 1991, and subsequent amendments and additions;
- GIVEN art.4 of Law n.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 n.45 of February 8, 2013, on "*Regulations on the procedures for the accreditation of teaching establishments and PhD Programmes by accredited institutions*", published in the Official Gazette of May 6, 2013, General Series, n.104;
- GIVEN Rector's Decree n.168 of July 18, 2013, implementing the provisions contained in Ministerial Decree n.45 of February 8, 2013, to enact the University Regulations governing PhD studies, and subsequent amendments and additions;
- GIVEN Law n.240 of December 30, 2010;
- 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 programs;
- GIVEN the Note from the Ministry of Education, Higher Education and Research of March 16, 2021, prot.7403 on the "*Operational indications on PhD Programmes accreditation procedures A.A. 2021-2022 - XXXVII cycle*";
- GIVEN the resolutions of the Senate of April 21, 2021 and of the Executive Boards of April 23, 2021 which approved the planning and the establishment of PhD programmes, with administrative headquarters at the University of Modena and Reggio Emilia, for the academic year 2021/2022;
- GIVEN the rector decree of May 3, 2021, n.390, which determined the amount of tuition and fee charges for enrolment and attendance in PhD programmes for the academic year 2021/2022;
- GIVEN the M.D. n°1061 of August 10, 2021; which has ordered the allocation of the endowment of the National Operational Program (PON) "Research and Innovation" 2014-2020, with reference to Action IV.4 "Doctorates and research contracts on innovation thematics" and to Action IV.5 "Doctorates on green thematics", in favour of structures with active and accredited doctoral programmes within the XXXVII cycle and national doctoral programmes;

GIVEN the National Operational Program (PON) Implementation Specification "Research and Innovation" 2014-2020 Action IV.4 "Doctorates and research contracts on innovation issues" and Action IV.5 "Doctorates on green issues";

GIVEN the resolution of the Board of Directors of 24 September 2021 approving the proposals for additional grants submitted by the Departments on the issues of M.D. 1061/2021;

DEEMED it necessary to proceed with publication of the call for applications for the abovementioned courses, pending the evaluation of the Ministry of University and Research on the activation of the aforementioned scholarships, in order to respect the timing provided by the MEUR for the transmission of selection data;

## DECREES

### ARTICLE 1 – Institution

**The University of Modena and Reggio Emilia hereby announces selection procedures for admission to the three-year PhD programmes listed in art.17, which follows, beginning from January 1<sup>st</sup> 2022 and concerning the XXXVII cycle, Academic Year 2021/2022, issued to implement M.D. 1061/2021.**

**The enrolments are subject to the verification of eligibility for support from the National Operation Program (PON) of the scholarships by the Ministry of University and Research.**

Scholarships bind the winners to this activity, as they provide for the carrying out of a specific research topic.

The research activity includes periods of study and research in the enterprise from a minimum of six to a maximum of twelve months

**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 online University notice board (<https://wss.unimore.it/public/albo/>) and on the following website: <https://www.unimore.it/bandi/StuLau-Sdott.html>.

### ARTICLE 2 - Admission requirements

The competition is open to any candidate, regardless of age or nationality, who as of **October 31<sup>st</sup>, 2021**, 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 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 ENIC\_NARIC centers.

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.

In any case, to be admitted to the doctorate course, Italian and foreign citizens holding a foreign academic qualification must submit to the PhD Office, by and no later than December 31<sup>st</sup>, 2021 via e-mail to the address [segr.dottorati@unimore.it](mailto: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 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 ENIC\_NARIC centers.

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.

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

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

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

### **ARTICLE 3 – Admission applications**

Applications for admission to competitions and any required enclosures must be submitted following the online procedure by the final deadline of **October 28<sup>th</sup>, 2021 at 1:00 p.m. (Italian time CET)**, when the competition closes.

Candidates interested in a PhD Programme must submit an admission application, requesting to take part to the relative selection procedure.

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

**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), 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.**

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.**

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 October 28<sup>th</sup>, 2021. Payment can only be made after the final saving of the application.

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](mailto:segr.dottorati@unimore.it)) within the peremptory deadline of the call deadline (October 28<sup>th</sup>, 2021, 1.00 pm CET) for requesting the reopening of the online procedure by attaching a scanned copy of an identity document. The candidate must make the corrections / additions he deems appropriate within the same deadline (October 28<sup>th</sup>, 2021, 1.00 pm CET). In this case, please note that the candidate will have to save the "Save data" data again following the explicit confirmation of the application.

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

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](mailto: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 an Italian old ordinance degree or second level degree (laurea specialistica or laurea magistrale), or an equivalent academic qualification issued by a foreign University;
- g) the exact title of the PhD Programme chosen by the candidate;
- h) knowledge of a second foreign language (either French, German or Spanish), in addition to English;
- i) curriculum vitae (that must include the Skype address);
- j) academic qualifications and any other documents;
- k) publications;

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 ENIC\_NARIC centers, in accordance with the regulations governing the admission of foreign students to Italian university degree courses, by the final deadline of December 31, 2021;

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 ENIC\_NARIC centers. 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; 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 October 29<sup>th</sup>, 2021, at 11:59 pm CET; the candidates can check on the summary page of the application form (can be reached by accessing the University's website at <https://www.esse3.unimore.it/Home.do> and making the "Login") if the presentation/reference/recommendation letter was sent by the referent. Within the abovementioned deadline, the candidates can send to the referent who has not yet completed a reminder by selecting the item "reminder" from the summary page of the application form.

7) academic publications with corresponding list;

Under article 15 of Law n. 183 of November 12<sup>th</sup>, 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 procedures are indicated in art.17, in the sections relating to each PhD Programme.

If provided, the Board may contact the candidates via videoconference (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

#### **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.

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/>).

In case of placement in several rankings in a position useful for admission, the candidate can register for only one PhD Course.

Candidates may not enrol in a PhD Programme if they are already enrolled in another PhD Programme, Degree or Diploma Programme, Specialisation Programme (medical area excepted), Tirocinio Formativo Attivo (Teachers' Training Programmes) or Level 1 and 2 Master's Programme of the University of Modena and Reggio Emilia, or any other University.

A candidate who is in a useful position in the ranking for admission to the doctorate may jointly attend the course and the last year of a medical specialization course in accordance with the following general criteria:

- the joint attendance of the last year of the Specialization School and the PhD programme is permitted only when the place of attendance of both programs is the same;
- students enrolled on the last year of the Specialization School can enrol on the PhD Programme, following art. 7, they will have to submit the no impediment form issued by the Specialization School Committee decided on the compatibility with the commitment and the activities required by the School itself;
- admission to the second year will be decided by the PhD Programme Teaching Committee depending on the research activities carried out throughout the Specialization School when students attended both the PhD Programme and the Specialization School. Research activities have to be confirmed also by the Specialization School Committee;
- when students are attending both the Specialization School and the PhD Programme they cannot benefit from the PhD scholarship.

## ARTICLE 7 – Enrolment

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

connect to the University website <https://www.esse3.unimore.it/Home.do> (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](mailto:webhelp@unimore.it)).

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

- a) digital passport photo (in JPEG or BITMAP format);
- b) scanned copy an identity document
- 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);
- f) in case of applicants with scholarship, Annex E “Declaration accompanying application for enrolment on a PhD Programme” - part 1 and part 2;
- g) (in case of students of specialization schools in the medical area) a written permission issued by the Specialization School Committee, following previous art. 6.

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 five 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 own 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 own personal Esse3 page, under the menu item “Taxes”, anyone 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.

**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<sup>st</sup>, 2021, via E-MAIL to the address [segr.dottorati@unimore.it](mailto: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 ENIC\_NARIC centers.

**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 D “Self-certification of subscription to Gestione Separata Inps”) to the Salaries Office (“Ufficio Contabilità”) by November 30<sup>th</sup>, 2021, by sending a scanned copy via e-mail to [ufficiostipendi@unimore.it](mailto:ufficiostipendi@unimore.it). If PhD students are already registered with the I.N.P.S (Italian Social Security Institute) Separate Management Fund because 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 December 31<sup>st</sup>, 2021, to the PhD Office, by sending a scanned copy via mail to [segr.dottorati@unimore.it](mailto:segr.dottorati@unimore.it).

**For information and assistance concerning the Tax ID code, housing, residence permit, 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](mailto: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.

If there are found false or misleading declarations relevant for the purposes of enrolment from the documentation presented by the candidate, 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.

#### **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.

The procedure will be completed until November 25<sup>th</sup>, 2021.

#### **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.
- 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.

The annual amount of a study scholarship is € 15.343,28 (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 the Teaching Board decides otherwise.

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 18 months.

#### **ARTICLE 10 - Fees for PhD Programmes**

Fee for access and attendance to the PhD programs in "Clinical and experimental medicine (CEM)" and "Molecular and regenerative medicine", is € 181,05, which must be paid in a single instalment at the time of the enrolment by those who register (the amount of the downloadable payment bulletin includes the regional tax, the stamp duty and the insurance coverage with extension for medical fault and contagion risk).

Fee for access and attendance to the other PhD programs is € 159,05, which must be paid in a single instalment at the time of the enrolment by those who register (the amount of the downloadable payment bulletin includes the regional tax, the stamp duty and the insurance coverage).

The amounts and the deadlines for the contribution for the following years will be determined every 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. For PhD students with scholarship, work activities must regard jobs directly pertaining to the PhD research area and should be formative in nature. Students without scholarship must also obtain authorization from the Teaching Committee though the right to support oneself economically will be taken into consideration. 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, and 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.

### **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 employee terminates the employment relationship with the public administration 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 taken into account 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 discussion 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.

#### **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 Education, Higher Education 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. 45 of February 8, 2013 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](mailto: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](mailto:segr.dottorati@unimore.it).

#### **ARTICLE 17 – List of Doctorate Research Courses**

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

###### **Places with scholarship:**

- 1 with topic “**Design, production and development of nanomedicines for drug delivery and targeting in difficult-to-treat/diagnose pathologies**” (Action IV.4 “Doctorates and research contracts on innovation thematic”);
- 1 with topic “**Cannabis sativa L.: a green and sustainable paradigm of medicinal interest**” (Action IV.5 “Doctorates on green thematic”);

- 1 with topic “**Modulation of the multispecies resident microbiota: an innovative and personalized therapeutic strategy for the treatment of vaginal infections due to *Candida albicans***” (Action IV.5 "Doctorates on green thematic");
- 1 with topic “**Tissue engineering using 3D printing techniques: creation of biomimetic models for cancer treatment and for the development of innovative ex-vivo biocompatibility tests for the reduction of animal experimentation**” (Action IV.5 "Doctorates on green thematic").

**Selection Procedure (for every selection procedures):** There are four different selection procedures, one for each research topic. Candidates interested to more than one selection procedures must submit the application form and a fee of € 25.00 for each selection procedure.

The selection procedure is intended to establish the candidate’s preparation and aptitude for carrying out research activities with respect to topics relating to the PhD Programme.

Except as provided by 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 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) Selection procedure for a place with scholarship with topic “Design, production and development of nanomedicines for drug delivery and targeting in difficult-to-treat/diagnose pathologies”:** based on academic and research record

**Admission requirements:** Italian second level degree “Laurea Magistrale” (under D.M. 270/04) in degree class LM-13 Pharmacy and Industrial Pharmacy or “Laurea specialistica” (under D.M.. 509/99) in degree class 14/S Pharmacy and Industrial Pharmacy, or Italian degree obtained prior to D.M. 509/99 in Pharmacy, Pharmaceutical Chemistry and Technology, or equivalent qualification obtained abroad.

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 “*Cannabis sativa* L.: a green and sustainable paradigm of medicinal interest”: 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 and pharmaceutical biotechnologies, LM-13 Pharmacy and industrial pharmacy or “Laurea specialistica” (under D.M. 509/99) in degree class 9/S Medical, veterinary and pharmaceutical biotechnologies, 14/S Pharmacy and industrial pharmacy, or Italian degree obtained prior to D.M. 509/99 in Biotechnology, specialization in Pharmaceutical Biotechnology, in Biotechnology, specialization in Medical Biotechnology, in Chemistry and Pharmaceutical Technologies or Pharmaceutical Chemistry and Technology, in Pharmacy or equivalent qualification obtained abroad.

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 “Modulation of the multispecies resident microbiota: an innovative and personalized therapeutic strategy for the treatment of vaginal infections due to *Candida albicans*”: 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 and pharmaceutical biotechnologies or “Laurea specialistica” (under D.M. 509/99) in degree classe 9/S Medical, veterinary and pharmaceutical biotechnologies or “Laurea del vecchio ordinamento” (ante D.M. 509/1999) in Biotechnology: Medical Biotechnology or equivalent qualification obtained abroad.

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 “Tissue engineering using 3D printing techniques: creation of biomimetic models for cancer treatment and for the development of innovative ex-vivo biocompatibility tests for the reduction of animal experimentation”: 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 and pharmaceutical biotechnologies, or Italian degree obtained prior to D.M. 509/99 in Biotechnology, specialization in Pharmaceutical Biotechnology, in Biotechnology, specialization in Medical Biotechnology, in Biotechnology, specialization in Veterinary Biotechnology, or equivalent qualification obtained abroad.

For the evaluation, the Selection Board has a score of up to 60 points, divided 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: 1) Public Health; 2) Translational medicine; 3) Nanomedicine, Medicinal and pharmaceutical sciences.

The Teaching Committee may propose to one or more students enrolled, considered suitable, a programme of study and research in collaboration with the French University of Angers that will result in the achievement also of the title of French PhD in "*Biology and health*". 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 “INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)”**

**Places with scholarship:**

- **1 with topic “Deep learning in real-time on the astrophysical data obtained from the Cerenkov CTA Observatory”** (Action IV.4 "Doctorates and research contracts on innovation thematic");
- **1 with topic “High Performance rare-earth free Electric Motors for a sustainable and greener agriculture”** (Action IV.5 "Doctorates on green thematic");

- 1 with topic **“Big Data for sustainable industrial processes”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Cloud and Edge computing for the digitization of communication process”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Neuromorphic Computing Hardware for Low-Power Edge-AI.”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Big Data Analytics and Digital Twin for Traffic Modelling: Boosting energy saving and emission reduction in Smart Cities”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Artificial intelligence techniques to tackle urban air pollution”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Smart AI for a Sustainable Industry 4.0 Transition”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Vehicle-to-everything (V2X) Communications for Green and Reliable Intelligent Transportation Systems”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Advanced integrated electronic biosensors for nanoscale entity detection”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Methods for a novel collaborative robotics: from programming to human skills transfer”** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **“Design of High efficiency and sustainability oriented electrical machines”** (Action IV.5 "Doctorates on green thematics").

**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):** There are twelve different selection procedures, one for each research topic. Candidates interested to more than one selection procedures must submit the application form and a fee of € 25.00 for each selection procedure.

The selection procedure is intended to establish the candidate's preparation and aptitude for carrying out research activities with respect to topics relating to the PhD Programme.

Except as provided by 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: 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 and a description of his/her research interests (Statement of Research Interest);
- 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 which must be produced directly by the referents and exclusively according to the procedure indicated in art. 3 of this Call.

**1) Selection procedure for a place with scholarship with topic “Deep learning in real-time on the astrophysical data obtained from the Cerenkov CTA Observatory”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**2) Selection procedure for a place with scholarship with topic “High Performance rare-earth free Electric Motors for a sustainable and greener agriculture”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**3) Selection procedure for a place with scholarship with topic “Big Data for sustainable industrial processes”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**4) Selection procedure for a place with scholarship with topic “Cloud and Edge computing for the digitization of communication process”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**5) Selection procedure for a place with scholarship with topic “Neuromorphic Computing Hardware for Low-Power Edge-AI.”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**6) Selection procedure for a place with scholarship with topic “Big Data Analytics and Digital Twin for Traffic Modelling: Boosting energy saving and emission reduction in Smart Cities”:** based on academic and research record

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**7) Selection procedure for a place with scholarship with topic “Artificial intelligence techniques to tackle urban air pollution”:** based on academic and research record

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**8) Selection procedure for a place with scholarship with topic “Smart AI for a Sustainable Industry 4.0 Transition”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**9) Selection procedure for a place with scholarship with topic “Vehicle-to-everything (V2X) Communications for Green and Reliable Intelligent Transportation Systems”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**10) Selection procedure for a place with scholarship with topic “Advanced integrated electronic biosensors for nanoscale entity detection”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**11) Selection procedure for a place with scholarship with topic “Methods for a novel collaborative robotics: from programming to human skills transfer”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**12) Selection procedure for a place with scholarship with topic “Design of High efficiency and sustainability oriented electrical machines”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum vitae including research and teaching activities: from 0 to 40 points,
- Exams taken and grades achieved: from 0 to 10 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 40/60 will be considered eligible.

**Areas of the PhD Programme:** The Doctorate offers three curricula: 1) Computer engineering and Science; 2) Electronics and Telecommunications; 3) Industrial Applications of ICT). The topics of the ICT Doctorate concern the disciplines of Computer Engineering and Science, Electronics, Electronic Measurements, Telecommunications, Electromagnetic Fields, Control Theory and Automation and Electrical Engineering, as well as applications of the above mentioned disciplines subject areas of the H2020 and Horizon Europe programmes and the national plan for research (PNR).

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/>.

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

### **3) PhD Programme in “INDUSTRIAL INNOVATION ENGINEERING” (Course venue: Reggio Emilia)**

#### **Places with scholarship:**

- **1 with topic “Digital Manufacturing for Future Green Factories”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Data Analysis Techniques for the Optimization and Minimization of the Environmental Impact in Logistic Processes”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Optimization of the Thermal Management of High-Density Power Components for Sustainable Mobility”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “SMAME3D: Shape Memory Additive Manufactured Endovascular Device Design and Development”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Nano and Micro-texturing for Surface Functionalization”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Towards sustainable ceramic industry: a new protocol to manage the sustainable transition”** (Action IV.5 "Doctorates on green thematics").

**Admission requirements:** every 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 includes six selective procedures, one for each research topic. The candidate interested in more than one selection procedure must submit the application for admission and pay the relative contribution of € 25.00 for each of the procedures in which he intends to participate. The selection procedure is intended to establish the candidate’s preparation and aptitude for carrying out research activities with respect to topics relating to the PhD Programme.

Except as provided by 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: 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.

**1) Selection procedure for a place with scholarship with topic “Digital Manufacturing for Future Green Factories”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 aptitude for carrying out research activities: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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.

**2) Selection procedure for a place with scholarship with topic “Data Analysis Techniques for the Optimization and Minimization of the Environmental Impact in Logistic Processes”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 aptitude for carrying out research activities: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 “Optimization of the Thermal Management of High-Density Power Components for Sustainable Mobility”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 aptitude for carrying out research activities: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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.

**4) Selection procedure for a place with scholarship with topic “SMAME3D: Shape Memory Additive Manufactured Endovascular Device Design and Development”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 aptitude for carrying out research activities: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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.

**5) Selection procedure for a place with scholarship with topic “Nano and Micro-texturing for Surface Functionalization”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 aptitude for carrying out research activities: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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.

**6) Selection procedure for a place with scholarship with topic “Towards sustainable ceramic industry: a new protocol to manage the sustainable transition”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 aptitude for carrying out research activities: from 0 to 25 points,
- Other qualifications: from 0 to 5 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional 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 PhD. 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](http://www.iii.unimore.it)

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

#### **4) PhD Programme "Enzo Ferrari" in INDUSTRIAL AND ENVIRONMENTAL ENGINEERING"**

**Places with scholarship:**

- 1 with topic **"Volcanic minerals for the green transition (VolMin4GT): Valorization and eco-sustainable recovery of volcanic and melting minerals, and related scrap"** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **"AI-enhanced TRUSTworthy human-technology-organisation systems for smart urban WASTE management AI-TRUST-WASTE"** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **"HYENAS/HYdrogen as ENergy carrier for industrial ApplicationS"** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **"Surface treatments for the production and use of "green hydrogen"** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **"GreenDesign4.0: Simulation and Virtualization of product lifecycle for Sustainable Design of manufacturing ceramics plants 4.0"** (Action IV.5 "Doctorates on green thematics");
- 1 with topic **"Study and development of Systems and Technologies - for Urban Air Mobility"** (Action IV.5 "Doctorates on green thematics").

**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 includes six selective procedures, one for each research topic. The candidate interested in more than one selection procedure must submit the application for admission and pay the relative contribution of € 25.00 for each of the procedures in which he intends to participate.

The selection procedures are intended to establish the candidate's preparation and aptitude for carrying out research activities with respect to topics relating to the PhD Programme.



Except as provided by 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: statement of purpose, 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.

**1) Selection procedure for a place with scholarship with topic “Volcanic minerals for the green transition (VolMin4GT): Valorization and eco-sustainable recovery of volcanic and melting minerals, and related scrap”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade) or a document certifying the list of examinations passed and the relative vote: 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.

**2) Selection procedure for a place with scholarship with topic “AI-enhanced TRUSTworthy human-technology-organisation systems for smart urban WASTE management AI-TRUST-WASTE”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade) or a document certifying the list of examinations passed and the relative vote: 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 “HYENAS/HYdrogen as ENergy carrier for industrial Applications”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade) or a document certifying the list of examinations passed and the relative vote: 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 “Surface treatments for the production and use of “green hydrogen”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade) or a document certifying the list of examinations passed and the relative vote: 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 “GreenDesign4.0: Simulation and Virtualization of product lifecycle for Sustainable Design of manufacturing ceramics plants 4.0”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade) or a document certifying the list of examinations passed and the relative vote: 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 “Study and development of Systems and Technologies - for Urban Air Mobility”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- Curriculum and relevance to the topics of the PhD Programme: from 0 to 25 points,
- Master Thesis (topic and grade) or a document certifying the list of examinations passed and the relative vote: 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 has been structured on 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 eligible students a programme of study and research in collaboration with the Chinese University of Fuzhou that will involve the attainment also of the qualification of Chinese PhD in "*Doctor in Engineering*", or a course of study and research in collaboration with the Federal Technological University of Paranà (Brazil) which will involve the achievement of the title of Brazilian PhD as "*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-enzoferrari.unimore.it/site/home/research.html>

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

## **5) PhD Programme in "LABOUR, DEVELOPMENT AND INNOVATION"**

**Places with scholarship:**

- 1 with topic "**Accountability for circular, sustainable and human-centered value chains in ceramic industry**" (Action IV.5 "Doctorates on green thematic").

**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**

The aim of the selection is to assess the candidate's preparedness and aptitude to carry out research activities in relation to the given topic.

For the purposes of assessment, candidates are required to submit a research project, in Italian or English, on the specific topic indicated, as an annex to the competition application for participation.

Candidates are required to have a knowledge of English.

The research project will not be binding on the Board of Professors for the purposes of the possible assignment of the title of the thesis.

Except as provided by 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 *attachment B1* herewith, available on the website of the Marco Biagi Foundation <https://www.fmb.unimore.it/dottorato/ammissione>;
- 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 *attachment C1* herewith, available on the Marco Biagi Foundation website <https://www.fmb.unimore.it/dottorato/ammissione>. The project can be freely proposed by the candidate within the given topic.
- 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.

For the evaluation of academic and research records, the Selection Board has a score of up to 60 points. The assessment criteria are:

- 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.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional score.

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 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.

Both curricula investigate the following research areas:

- Work transformations, innovation & business models;
- Work Organization, discretion at work and performance appraisal in digital enterprises;
- Engineering Economics & Financial Innovation;
- Corporate ethics and sustainability;
- Health, disability, work and care.

- Gender inequalities in STEM areas of education and impact in the access to digital economy.
- Free movement and protection of personal data in the digital era.
- Socioeconomic Impact of Pandemics and recovery strategies.

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.fmb.unimore.it/dottorato/attivita-formativa/>

Both curricula and research areas can be found in the web site:

<https://www.fmb.unimore.it/area/dottorato/>

PhD students will be responsible for the research projects and related studies assigned to them, and where appropriate teaching assistance and internships to be performed at the Marco Biagi Foundation and/or elsewhere, in accordance with the programmes determined by the Doctoral Research School Council (Collegio dei Docenti) taking account of the skills and aptitudes of the doctoral research students.

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

## **6) PhD Programme in “MODELS AND METHODS FOR MATERIAL AND ENVIRONMENTAL SCIENCES”**

**Places with scholarship:**

- **1 with topic “Innovative geophysical techniques to monitor groundwater exposed to climate change and anthropogenic contamination”** Action IV.5 "Doctorates on green thematics");
- **1 with topic “GREEN (Algae) HYDROGEN Production”** Action IV.5 "Doctorates on green thematics");
- **1 with topic “Plant biodiversity and ecosystem safeguard: Learn from the past to plan the future”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Fluid mobility in fractured carbonates from geological analogues of reservoir: implications for the underground CO<sub>2</sub> sequestration”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Lignin Depolymerization-Upgrading to Biomaterials”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Influence of climate change on the hydro-mechanical processes of triggering, reactivation and evolution of landslides in mountain areas”** (Action IV.5 "Doctorates on green thematics");
- **1 with topic “Sustainable materials for building construction”** (Action IV.5 "Doctorates on green thematics").

**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 selective procedures):** The Course includes seven selective procedures, one for each research topic. The candidate interested in more than one selection procedure must submit the application for admission and pay the relative contribution of € 25.00 for each of the procedures in which he intends to participate.

The selection procedure is intended to establish the candidate's preparation and aptitude for carrying out research activities with respect to topics relating to the PhD Programme.

Except as provided by 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 given topics;
- 5) any certification attesting to knowledge of the English language (TOEFL, Proficiency or other).

**1) Selection procedure for a place with scholarship with topic “Innovative geophysical techniques to monitor groundwater exposed to climate change and anthropogenic contamination”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;
- Statement of Research Interest: from 0 to 10 points;
- publications, conference papers, certifications: from 0 to 5 points
- other qualifications (certificate of knowledge of English, letters of reference, periods of study abroad): 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 20/40 will be considered eligible.

**2) Selection procedure for a place with scholarship with topic “GREEN (Algae) HYDROGEN Production”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;
- Statement of Research Interest: from 0 to 10 points;
- publications, conference papers, certifications: from 0 to 5 points
- other qualifications (certificate of knowledge of English, letters of reference), periods of study abroad): 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 20/40 will be considered eligible.

**3) Selection procedure for a place with scholarship with topic “Plant biodiversity and ecosystem safeguard: Learn from the past to plan the future”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;
- Statement of Research Interest: from 0 to 10 points;
- publications, conference papers, certifications: from 0 to 5 points
- other qualifications (certificate of knowledge of English, letters of reference), periods of study abroad): 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 20/40 will be considered eligible.

**4) Selection procedure for a place with scholarship with topic “Fluid mobility in fractured carbonates from geological analogues of reservoir: implications for the underground CO<sup>2</sup> sequestration”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;
- Statement of Research Interest: from 0 to 10 points;
- publications, conference papers, certifications: from 0 to 5 points
- other qualifications (certificate of knowledge of English, letters of reference), periods of study abroad): 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 20/40 will be considered eligible.

**5) Selection procedure for a place with scholarship with topic “Lignin Depolymerization-Upgrading to Biomaterials”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;
- Statement of Research Interest: from 0 to 10 points;
- publications, conference papers, certifications: from 0 to 5 points
- other qualifications (certificate of knowledge of English, letters of reference), periods of study abroad): 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 20/40 will be considered eligible.

**6) Selection procedure for a place with scholarship with topic “Influence of climate change on the hydro-mechanical processes of triggering, reactivation and evolution of landslides in mountain areas”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;
- Statement of Research Interest: from 0 to 10 points;
- publications, conference papers, certifications: from 0 to 5 points

- other qualifications (certificate of knowledge of English, letters of reference), periods of study abroad): 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 20/40 will be considered eligible.

### **7) Selection procedure for a place with scholarship with topic “Sustainable materials for building construction”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 40 points, divided as follows:

- curriculum of studies and suitability of the exams and the topics of the thesis compared to the topic of the doctoral scholarship: from 0 to 15 points;

- Statement of Research Interest: from 0 to 10 points;

- publications, conference papers, certifications: from 0 to 5 points

- other qualifications (certificate of knowledge of English, letters of reference), periods of study abroad): 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 20/40 will be considered eligible.

**Areas of the PhD Programme:** The Course aims to train experts in advanced research methodologies in environmental and material sciences, in respect of the research fields of the teaching staff (<http://www.m3es.unimore.it/site/home.html>). The research doctor will be able to operate in one or more of the following fields: processes regulating the transfer of elements and compounds from geosphere to hydro- and biosphere forecasting; prevention and mitigation of natural risks; identification and optimal use of resources; study, conservation and appraisal of cultural assets; environmental impact of human activities; chemical sustainable strategies; preparation and characterization of materials with innovative functional properties; devices and methodologies for electrochemical sensing suitable to work in real systems; computational multi-scale strategies; chemometrics, multivariate analysis of signals and images and themes related to BigData and ‘Industry 4.0’.

The Teaching Board can propose to one or more of the enrolled students, deemed suitable, a course of study and research in collaboration with the French University of Lille which will result in the achievement of the title of French 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>

## **7) PhD Programme in “MOLECULAR AND REGENERATIVE MEDICINE”**

**Places with scholarship:**

- 1 with topic “**PISTA - Prevention, Innovation and Sustainability: Telemedicine for the Elderly**” (Action IV.4 "Doctorates and research contracts on innovation thematic").

**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 (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; 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; obtained prior to D.M. 509/99); or equivalent qualification obtained abroad, in accordance with the provisions in art. 2 of the Call.

### **Selection Procedure: based on academic and research record**

The selection procedure is intended to establish the candidate’s preparation and aptitude for carrying out research activities related to the given topic.

Except as provided by 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) two 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.

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- degree mark: from 0 to 10 points,
- curriculum: from 0 to 20 points,
- publications: from 0 to 5 points,
- Statement of Research Interest: from 0 to 5 points,
- Reference letters: from 0 to 10 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 30/60 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>

## 8) PhD Programme in “PHYSICS AND NANO SCIENCES”

### Places with scholarship:

- 1 with topic “Development of protocols for the encoding of microwave pulses related to the coherent manipulation of quantum systems” (Action IV.4 "Doctorates and research contracts on innovation thematics");
- 1 with topic “Design of advanced materials for next-generation lithium ion batteries for electric transport application” (Action IV.5 "Doctorates on green thematics");
- 1 with topic “Nanotechnology for thermoelectricity and energy harvesting” (Action IV.5 "Doctorates on green thematics");
- 1 with topic “Halogenated functional interfaces in organic electronic sensors for the detection of new generation fluorinated pollutants in water” (Action IV.5 "Doctorates on green thematics").

**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 selective procedures):** The Course includes four selective procedures, one for each research topic. The candidate interested in more than one selection procedure must submit the application for admission and pay the relative contribution of € 25.00 for each of the procedures in which he intends to participate.

Except as provided by art. 3 of this application procedure, candidates may submit the following additional documents:

1a) Curriculum vitae: list of research and teaching activities indicating all the qualifications obtained (written either in Italian or in English.); 1b) 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; 1c) certificates of knowledge of English language (TOEFL, Proficiency or others); certificate of Graduate Record Examination (GRE); 1d) Summary of the thesis/diploma work, from a minimum of three to a maximum of five pages, with the following headings: state of the art, research methodology and results. This summary can be written either in Italian or in English.

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 three pages 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 of the scholarship.

**1) Selection procedure for a place with scholarship with topic “Development of protocols for the encoding of microwave pulses related to the coherent manipulation of quantum systems”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- curriculum vitae: from 0 to 20 points;
- reference letters: from 0 to 10 points;
- Statement of Research Interest: from 0 to 30 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional score.

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

**2) Selection procedure for a place with scholarship with topic “Design of advanced materials for next-generation lithium ion batteries for electric transport application”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- curriculum vitae: from 0 to 20 points;
- reference letters: from 0 to 10 points;
- Statement of Research Interest: from 0 to 30 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional score.

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 “Nanotechnology for thermoelectricity and energy harvesting”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- curriculum vitae: from 0 to 20 points;
- reference letters: from 0 to 10 points;
- Statement of Research Interest: from 0 to 30 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional score.

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 “Halogenated functional interfaces in organic electronic sensors for the detection of new generation fluorinated pollutants in water”:** based on academic and research record

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows:

- curriculum vitae: from 0 to 20 points;
- reference letters: from 0 to 10 points;
- Statement of Research Interest: from 0 to 30 points.

The Selection commission shall have the opportunity to conduct a video-conferencing interview via Skype. This interview, with the aim of deepening the titles presented by the candidates, does not provide an additional score.

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:** Main topics include: nano-systems for energy conversion; Quantum Technologies; functional surfaces and nanostructured systems: nano-fabrication, microscopies and spectroscopies; bigdata, imaging and artificial intelligence; physics of (nano-)bio-systems; synthesis and study of functional molecules; graphene; nano-tribology; advanced computational methods of theoretical physics; physics of nano-devices; theory and models for study of fundamental interactions.

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-PNS website at: <http://www.nano-phdschool.unimore.it/site/home/topics/>.

## **9) PhD Programme in “HUMAN SCIENCES”**

**Places with scholarship:**

- **1 with topic “Academic Discourse and language development: digital tools to develop written competences at university level”** (Action IV.4 "Doctorates and research contracts on innovation thematics");
- **1 with topic “Constructivist museum didactics for education to sustainability”** (Action IV.5 "Doctorates on green thematics").

**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 three selective procedures):** There are two different selection procedures for this PhD Programme, one for each research topic. Candidates interested to more than one selection procedures must submit the application form and a fee of € 25.00 for each selection procedure.

The selection procedure is intended to establish the candidate's preparation and aptitude for carrying out research activities in areas related to the PhD Programme.

Except as provided by 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 text, no more than two pages long and written in English, explaining the reasons of the candidate to attend the PhD Programme and the description of his/her specific research interests (Statement of Research Interest) in relation to the above-mentioned topic;
- 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, related to the above-mentioned topic. 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.

**1) Selection procedure for a place with scholarship with topic “Academic Discourse and language development: digital tools to develop written competences at university level”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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.

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

**2) Selection procedure for a place with scholarship with topic “Constructivist museum didactics for education to sustainability”: based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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.

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:**

PhD programme study areas are: a) *Digital Humanities and Digital communication*; b) *Language and Culture Studies* (English, French, German, Italian and Spanish studies): Narratology, re-readings and rewritings of the literary canon, 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; 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/>

## **10) PhD Programme in “FOOD AND AGRICULTURAL SCIENCE, TECHNOLOGY AND BIOTECHNOLOGY” (Course venue: Reggio Emilia)**

### **Places with scholarship:**

- 1 with topic **“Bio-sustainable techniques for the production and transformation of medicinal plants aimed at increasing metabolites with nutraceutical and phytotherapeutic action for veterinary use”** (Action IV.5 "Doctorates on green thematics").
- 1 with topic **“Green approaches for the improvement of sustainable food packaging performances”** (Action IV.5 "Doctorates on green thematics").
- 1 with topic **“The reuse of agro-industrial by-products as components of animal feed”** (Action IV.5 "Doctorates on green thematics").
- 1 with topic **“Genetics and genetic improvement of plant root traits: extension of biodiversity, resilience to climate change and impact on food production and carbon sequestration in the soil”** (Action IV.5 "Doctorates on green thematics").

**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 selective procedures):** The Course includes four selective procedures, one for each research topic. The candidate interested in more than one selection procedure must submit the application for admission and pay the relative contribution of € 25.00 for each of the procedures in which he/she wishes to participate. The selection procedure is intended to establish the candidate's preparation and aptitude for carrying out research activities in areas related to the PhD programme.

Except as provided by 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 XXXVII cycle

of the PhD Programme (available from the PhD Programme website at: <http://www.steba.unimore.it/> under "Research topics").

5) any recommendation letters written by experts in the field of research of the PhD Programme, indicating the public or private institution the expert 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) Selection procedure for a place with scholarship with topic "Bio-sustainable techniques for the production and transformation of medicinal plants aimed at increasing metabolites with nutraceutical and phytotherapeutic action for veterinary use": based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided as follows

- Curriculum: from 0 to 30 points,
- Master thesis: from 0 to 15 points,
- Publications: from 0 to 5 points,
- Other qualifications: from 0 to 10 points.

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

**2) Selection procedure for a place with scholarship with topic "Green approaches for the improvement of sustainable food packaging performances": based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 "The reuse of agro-industrial by-products as components of animal feed": based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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 "Genetics and genetic improvement of plant root traits: extension of biodiversity, resilience to climate change and impact on food production and carbon sequestration in the soil": based on academic and research record**

For the evaluation, the Selection Board has a score of up to 60 points, divided 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, 12/10/2021

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 28<sup>th</sup> 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 (XXXVII 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

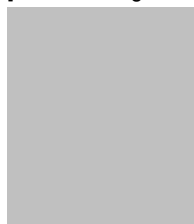
**ANNEX B2 (to be used only for applications to the PhD Programme in Food and agricultural science, technology and biotechnology)**

**CURRICULUM VITAE**

**PERSONAL INFORMATION**

**Replace with First name(s) Surname(s)**

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



Replace with house number, street name, city, postcode, country

Replace with telephone number Replace with mobile number

State e-mail address

State personal website(s)

Date of birth: dd/mm/yyyy | Nationality: Enter nationality/-ies

**EDUCATION AND TRAINING**

Replace with dates  
(from dd/mm/yy– to dd/mm/yy)

[Add separate entries for each course. Start from the most recent.]

**RESEARCH EXPERIENCE**

Replace with dates  
(from dd/mm/yy– to dd/mm/yy)

[Remove any headings left empty.]

[Add separate entries for each experience. Start from the most recent]

Replace with occupation or position held (e.g., research grant, research scholarship.....)

Replace with University or Research Centre name and locality (if relevant, full address and website):

- Replace with main activities (max 200 characters)

**TEACHING EXPERIENCE**

Replace with dates  
(from dd/mm/yy– to dd/mm/yy)

[Remove any headings left empty.]

[Add separate entries for each experience. Start from the most recent]

e.g mentorship, teaching, seminars (specifying place, institution)

**WORK EXPERIENCE**

Replace with dates  
(from dd/mm/yy– to dd/mm/yy)

[Remove any headings left empty.]

[FILL WITH OTHER WORK EXPERIENCE (IF ANY)]

[Add separate entries for each experience. Start from the most recent]

Replace with occupation or position held

Replace with employer’s name and locality (if relevant, full address and website)

- Replace with main activities and responsibilities (max 200 characters)

**PERSONAL SKILLS**

Mother tongue(s)

Replace with mother tongue(s)

Other language(s)

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

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 (XXXVII 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

**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*

<b>Title of the Research Topic</b>	<i>Please, report here the exact title of the topic for the XXXVII cycle, available from the PhD Programme website at: <a href="http://www.steba.unimore.it/site/home/research-topics.html">http://www.steba.unimore.it/site/home/research-topics.html</a></i>
<b>Description of the specific research interest</b>	<b>(max 3000 characters including spaces)</b> <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 D

### 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](mailto: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”<sup>1</sup> in quanto iscritto presso la seguente cassa pensionistica: (specificare quale) .....
- “CASSA UNICA - aliquota MASSIMA”<sup>2</sup> 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**

<sup>1</sup> 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.

<sup>2</sup> Dall’anno 2018: 34,23%.

## ANNEX E (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. 2021/2022, XXXVII 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 MUR (Ministry for University 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, XXXVII cycle – A.Y. 2021/2022, 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 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.

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 E (Part 2) - Form “Accompanying declaration for scholarship holders”

### DECLARATION ACCOMPANYING APPLICATION FOR ENROLMENT ON A PhD PROGRAMME A.Y. 2021/2022, XXXVII

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](http://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](http://www.inps.it)) and send via e-mail a [ufficiostipendi@unimore.it](mailto: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 November 30<sup>th</sup>, 2021 (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 25<sup>th</sup> 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) \_\_\_\_\_