SUBJECT: Public competition for admission to PhD courses - XXXVII cycle - academic year 2021/2022

THE RECTOR

CONSIDERING	Law n. 210 of July 3, 1998, art. 4;
CONSIDERING	Law n. 240 of December 30, 2010, art. 19;
CONSIDERING	the Ministerial Decree n. 45 of February 8, 2013;
CONSIDERING	the University of Pavia Statute;
CONSIDERING	the University of Pavia "Regulations for PhD courses" n. 1223 of July 24, 2013 and subsequent modifications;
CONSIDERING	the Ministerial Decree n. 40 of January 25, 2018;
CONSIDERING	the "Technical report on the activation of the PhD courses – XXXVII cycle" issued by the Internal Evaluation Unit;
CONSIDERING	the resolution of the Academic Senate of March 22, 2021;
CONSIDERING	the resolution of the Administrative Council of March 30, 2021;
CONSIDERING	the need to issue the call for applications for public competitions to be admitted to the PhD courses, XXXVII cycle, administered by the University of Pavia

DECREES

Art. 1
Activation

1. The University of Pavia hereby announces public competitions for admission to the XXXVII cycle (academic year 2021/2022) of PhD courses, listed below according to their macro-areas:

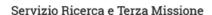|	**MACRO-AREA OF SCIENCE AND TECHNOLOGY**
1	BIOENGINEERING, BIOINFORMATICS AND HEALTH TECHNOLOGIES
2	COMPUTATIONAL MATHEMATICS AND DECISION SCIENCES in cooperation with the University of Italian Switzerland (USI)
3	DESIGN, MODELING AND SIMULATION IN ENGINEERING
4	PHYSICS
5	ELECTRONICS, COMPUTER SCIENCE AND ELECTRICAL ENGINEERING
6	MATHEMATICS in cooperation with University of Milano-Bicocca, Istituto Nazionale di Alta Matematica "Francesco Severi" and CIAFM
7	MICROELECTRONICS
8	CHEMICAL AND PHARMACEUTICAL SCIENCES, AND RELATED INDUSTRIAL INNOVATION
9	EARTH AND ENVIRONMENTAL SCIENCES
	MACRO-AREA OF LIFE SCIENCE
10	GENETICS, MOLECULAR AND CELLULAR BIOLOGY
11	EXPERIMENTAL MEDICINE
12	PSYCHOLOGY, NEUROSCIENCE AND DATA SCIENCE
13	BIOMEDICAL SCIENCES
14	TRANSLATIONAL MEDICINE
	MACRO-AREA OF HUMANISTIC AND SOCIAL SCIENCES
15	APPLIED ECONOMICS AND MANAGEMENT (AEM) in cooperation with the University of Bergamo
16	PRIVATE LAW, ROMAN LAW AND EUROPEAN LEGAL CULTURE
17	PUBLIC LAW, CRIMINAL AND INTERNATIONAL JUSTICE
18	ECONOMICS in cooperation with the University of Milano

19	SCIENCES OF THE LITERARY AND MUSICAL TEXT
20	HISTORY

2. In Annex 1 (p. 17 ff.), which forms an integral part of this call, for each course the location, course coordinator, research topics, positions available, scholarships and other funding, name of the cooperating institutions and possible issue of double or joint degrees, selection procedure and qualifications assessed, admission test timetable and programs offered are specified. The PhD courses have a legal duration of three years, starting from October 1, 2021.

3. The PhD courses activation is subject to the completion of the accreditation procedure or to the verification of the requirements conservation by ANVUR. Therefore, the selections will be carried out only for the PhD courses that have received the accreditation or its confirmation by the Ministry.

4. The number of PhD positions mentioned in Annex 1 (p. 17 ff.) may be increased, with subsequent provisions, if additional funding from public institutions or qualified private organisations is made available. In any case, the deadline for applications will remain unchanged.

5. The funding provided by external entities will be assigned provided an agreement is reached between the University and the entity involved.

6. **This call for applications is equivalent to a notification to all intents and purposes. Further modifications, updates or additions to its content will be announced exclusively on the http://phd.unipv.it/ website.**

7. The presentation of the application as outlined in art. 5 implies the acceptance by the candidate of the rules contained in this call for applications. Failure to respect these rules will result in the candidate being excluded from the competition.

Art. 2
Admission requirements

1. Applications are invited from candidates, regardless of age and nationality, unless otherwise specified in Annex 1 (p. 17 ff.):

   a. who hold an Italian *"diploma di laurea ante D.M. 509/1999 (vecchio ordinamento)/laurea specialistica/laurea magistrale"*, or an equivalent second-level degree issued by an AFAM *(Alta Formazione Artistica e Musicale)* institution;

   b. who hold an academic degree awarded abroad and recognised by the Academic Board as being eligible for the selected PhD competition purpose only. Such degree must be comparable to an Italian second-level degree in terms of duration, level and disciplinary field. During the application procedure, candidates will be asked to upload, in addition to the qualifications required for the specific PhD course, the following documents, in order for their foreign degree to be recognised as eligible:

    i.   in case of italian and EU citizens: self-declaration, pursuant to D.P.R. 445/2000 and subsequent modifications, of all their academic degrees, including the courses attended, the marks received and the legal duration of the degree courses;

    ii.   in case of non-EU citizens: certificates of all their university degrees, in Italian or English, including the courses attended, the marks received and the legal duration of the degree courses. In case of certificates in a language different from Italian or English candidates will have to submit, together with the certificates, their sworn and legalized translation into Italian or English.

    iii.   any other document relevant to the assessment of a degree's eligibility, such as a Diploma Supplement or Dichiarazione di Valore in Loco.

The candidate may be required at any time to submit further documents, in order to verify the eligibility of his/her degree;

  c. who expect to receive the degree mentioned in para. a and b no later than October 31, 2021. **Failure to attain the degree within October 31, 2021 will result in candidates being excluded from the PhD course.** Such candidates, if successful, will be conditionally admitted and enrolled in the PhD course and will be required to submit by e-mail (concorso-dottorati@unipv.it) to the University administration office, no later than October 31, 2021:

    i.   in case of degree attained in Italy: a self-declaration, conforming to the model available at phd.unipv.it/call-37/, testifying they have attained the degree, together with copy of a valid identity document;

    ii.   in case of degree attained abroad:

        1.   in case of italian or EU citizens: a self-declaration, conforming to the model available at phd.unipv.it/call-37/, testifying they have attained the degree, together with copy of a valid identity document;

        2.   in case of non-EU citizens: a certificate in Italian or English language testifying the degree attainment. In case of certificates in a language different from Italian or English candidates will have to submit, together with the certificates, their sworn and legalized translation into Italian or English.

2. Applications from candidates already enrolled in a PhD course at the University of Pavia will not be accepted.

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Art. 3
Additional PhD reserved to candidates employed by companies, institutes
or public research centres in highly qualified positions
and additional PhD positions in higher-education apprenticeships

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1. Employees of companies, institutes or public research centres in highly qualified positions may undertake, while keeping their job position and stipend, a PhD course. Such candidates' training objectives and research activities are arranged between the University and the

company, institute or public research centre by means of a specific agreement. A member of the company can take part in the selection procedure. Candidates' interviews will include a discussion of the research topics proposed by the company. A separate ranking list is drawn up for these candidates. The agreement between the University and the company must be formalised no later than August 31, 2021. It will specify, among other things, the conditions and nature of the research to be carried out at the company, institute or public research centre and the division of the employee's time.

2. If the conditions exist, it is possible to establish PhD positions in apprenticeships with companies. This type of contract allows graduates aged up to 29 years to enrol in a PhD course and get simultaneously employed by a company. A separate ranking list is drawn up for these candidates. A member of the company can take part in the selection procedure. The Committee will examine, at the end of the interview, also the research topics proposed by the company. These positions will be activated provided that the company identifies a candidate suitable for their needs and that an agreement is formalised by August 31, 2021, specifying, among other things, the conditions and nature of the research to be carried out at the company, institute or public research centre and the division of the employee's time.

3. Candidates interested in these positions must select the appropriate administrative category during the application procedure, if available for their chosen PhD course.

Art. 4
Additional positions reserved to candidates with a scholarship from a foreign country,
additional positions reserved to candidates holding a scholarship
from a specific international mobility program,
additional positions with scholarship reserved to candidates who graduated abroad

1. The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions. Applications for the "Additional positions reserved to candidates with a scholarship from a foreign country" and the "Additional positions reserved to candidates holding a scholarship from a specific international mobility program" will be subject to a check by the University administration on the actual availability of the funding whose ownership is declared by the candidate. Candidates will be selected through a qualification assessment and, unless otherwise specified in Annex 1 for the specific PhD course, will also undertake an interview via videoconference, aimed at verifying candidates' competence, ability and aptitude for research as well as their knowledge of Italian and/or English. Candidates must select the appropriate administrative category, if available for their chosen PhD course, during the application procedure. The examining committee will draw up specific reports and separate ranking lists.

2. "Additional position with scholarship reserved to candidates graduated abroad" are reserved to candidates holding a second-level university degree attained abroad. Candidates will be selected through a qualification assessment and an interview via videoconference. Candidates must select the appropriate administrative category, if available for their chosen PhD course, during the application procedure. The examining committee will draw up specific

reports and a separate ranking list. In case no candidate is suitable for such position, the scholarship will be assigned to the candidate suitable for regular positions without scholarship, using the ranking order as the criterion for assignment.

Art. 5
Applications

1. Candidates who wish to participate in a PhD competition at the University of Pavia must **apply online** by the deadline of **June 24, 2021 at 17:00 pm (CET). Applications can only be made via the online procedure in the candidates' Personal Area** at the following link: **https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng**.
Applications submitted via any other means will not be considered. Candidates are responsible for ensuring that their application has been completed accurately and in full; complaints related to the malfunctioning of the online procedure will not be accepted. Candidates are highly recommended to complete the online application well in advance of the application deadline.
Candidates must **pay the application fee,** amounting to **€ 35.00, by June 24, 2021**. **Failure to pay the admission fee by the deadline will result in candidates being excluded from the competition. Under no circumstances will the admission fee be refunded**. Candidates applying for the "Additional positions reserved to candidates holding a scholarships from international mobility programs" are exempted from the application fee.

2. Candidates must be registered at https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng in order to access the online application procedure. Candidates who have yet to register must select the "Registration" tab and insert the requested data; then, by selecting the "Login" item and entering the username and password provided by the system, they will be able to access their Personal Area and apply for the PhD competitions.

Candidates who have already registered on the University of Pavia website must select only the "Login" tab and access the Personal Area by entering the username and password already in their possession. **Candidates are requested to check and update their personal information already present in the database, in particular the residence and the e-mail address which will be used for all communications related to the PhD competition.**

In order to submit the application, candidates have to select the "Admissions" item from the top right menu, then, from the same menu, the "Admission test" item, and then the PhD competition in which they would like to take part.

During the application procedure, candidates must:

- enter the information regarding their degree course and the details of a valid identity document; a copy of the same identity document will have to be uploaded during the application procedure;

- choose the PhD competition, the appropriate administrative category and the foreign language, from those listed in Annex 1 for each PhD course, whose knowledge will be verified during the interview;

- request to take the interview via videoconference, only if Annex 1 of the call for applications allows this option for the chosen course. Such request can no longer be modified once the online application is concluded;

- enter the name and e-mail address of the chosen referee/s, in case the reference letter/s is/are included among the qualifications assessed for the selected PhD competition (see Annex 1, p. 17 ff.);

- attach, via an upload, proof of the qualifications required for their chosen PhD competition (see Annex 1, p. 17 ff.) and the identity document whose details were entered during the procedure.

Qualifications and documents must be attached as .pdf files and must not exceed 5MB each. Each file's denomination must bear the candidate's surname e the type of the qualification (e.g. surname_curriculumvitae).

Candidates will have to prove they are in possession of the qualifications[1] issued by the Public Administration by means of a self-declaration, pursuant to art. 46 of D.P.R. 445/2000. The self-declaration must be duly dated and subscribed. The self-declaration regarding the exams taken must conform to the model available at phd.unipv.it/call-37/ or, if available, it can be downloaded from the website of the institution where the degree was awarded. The self-declaration must bear all information requested in Annex 1 for the PhD course for which the candidate is applying. **Non-EU applicants in possession of qualifications awarded by a non-Italian institution cannot submit a self-declaration, but must attach to the application a copy of the relevant certificates.**

A self-declaration uploaded in the application portal, to be valid and hence considered for evaluation by the Committee, must be signed with one of the following modalities:

- digital signature, in a format recognized by the Italian Digital Administration Code (CAD)
- original signature on a paper document, then scanned

and accompanied by a copy of a valid identity document. In the absence of one of these features, the document will be invalid.

The Committees will not consider for evaluation any of the following documents: unsigned curriculum vitae; invalid self-declarations; certificates, copies of diplomas, diploma supplements issued by an italian Public Administration. Certificates issued by private entities are considered as valid.

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[1] Pursuant to D.P.R. n. 445 of December 28, 2000 and subsequent modifications, Italian and EU citizens must provide a self-declaration attesting the following conditions and facts certified by the Italian Public Administration:
a. enrolment in professional organisations or on lists managed by Italian Public Administration;
b. membership of professional associations;
c. qualifications and exams taken;
d. professional qualifications, post-graduate qualifications, qualifying exams, training courses, refresher courses and technical qualifications;
e. student status.

With the exception of the degree required for admission (see art. 2, para. 1), all further qualifications must have been obtained by the deadline for applications.

The examining committee will take into consideration only the qualifications listed in Annex 1 (p. 17 ff.) for each PhD course.

Candidates with a disability (under the provisions of Law n. 104 of February 5, 1992 integrated by Law n. 17 of January 28, 1999) or affected by a Specific Learning Disability (under the provisions of Law n. 170 of October 8, 2010) should make a specific request in their application for the necessary assistance and, if required, for extra time to complete the selection tests. Candidates with disabilities are required to submit a medical certificate issued by the competent health authorities via the medical committees. Candidates with Specific Learning Disabilities must submit an appropriate clinical certificate issued no more than three years before by the National Health Service. Regions where it is not possible to diagnose such disorders as part of the specialist treatments carried out by the National Health Service can commit, within the limits of their human, instrumental and economic resources, the same diagnosis to a specialist or accredited structure. The documents testifying the disability must be submitted to the Centro Servizio di Ateneo - Servizio di Assistenza e Integrazione per gli Studenti Disabili e con DSA "SAISD" (Assistance and Integration Service for Students with Disabilities or Special Learning Disabilities) at least 15 days before the test in one of the following ways:

- hand-delivery to the SAISD office during the opening times (available at https://saisd.unipv.it/index.php/en/contacts/);
- e-mail to disabili@unipv.it, together with a copy of a valid identity document;
- fax to +39 0382/984954;
- registered letter with acknowledgement of receipt to: Centro Servizio di Ateneo - Servizio di Assistenza e Integrazione per gli Studenti Disabili e con DSA "SAISD" - P.zza Leonardo Da Vinci n. 16 – Pavia – Italy.

Based on the documents submitted by the candidate, the Vice-Rector for Disabilities and Special Needs, in coordination with the examining committee, will decide on the possible assistance and the extra time granted for the tests.

After the completion of the online application and before the deadline for applications (**June 24, 2021 at 17:00 pm, CET**), candidates will be able to:

- modify the data previously entered. **The modifications will be permanently saved provided that the candidate bring the full application again to a conclusion**. At the end of the application procedure, candidates will have to reprint the application form;

- add, cancel or modify the documents uploaded (qualifications and identity document) by using the "Enter/modify qualifications" button;

- add, cancel or modify the data of the chosen referee/s, in case the reference letter/s is/are included among the qualifications assessed for the selected PhD competition (see Annex 1, p. 17 ff.), and possibly send a reminder to the referee/s already inserted. **The modifications will be permanently saved provided that the candidate bring the full application again to a conclusion.**

After the deadline for applications, modification or addition to the data or to the documents will be no longer possible.

At the end of the procedure, candidates must print the application form and **pay by June 24, 2021 the participation fee of € 35.00. Failure to pay the application fee by the deadline will result in candidates being excluded from the competition.** The participation fee must be paid via the PagoPA system, with one of the following methods:

– **direct payment** (credit cards or bank transfers through the affiliated banks) in the "Payments" section of your Personal Area, by clicking on the invoice number, then on the "Pay by PagoPA" button;

– **deferred payment**, bringing your PagoPA invoice to a bank, a post office, a SISAL or Lottomatica point, or using your home banking system. Candidates can print the invoice in their Reserved Area, by clicking on the invoice number and then on the button "Print notice for PagoPA".

3. **The application form must be printed and hand-delivered to the examining committee on the day of the first on-site test (the written test if scheduled, otherwise the interview). Candidates who will not take any on-site test must send the signed application form, along with a copy of a valid identity document, to concorso-dottorati@unipv.it by the date of the interview.**

4. After the deadline for applications, the University administration will check the validity of the applications received and verify that the application fee of € 35.00 has been paid within the deadline. **In cases of invalid applications, or where the payment has not been made within the deadline, the candidate will be excluded from the competition.** On the **phd.unipv.it/bando-37/** website the list of the candidates admitted to the selection procedure will be published for each PhD course.

5. Candidates who wish to take part in more than one competition will have to submit a separate application for each, together with the qualification certificates requested, and pay a participation fee for each PhD competition selected.

6. All applicants are conditionally admitted to the PhD competitions while the University administration office checks that they actually possess the requirements provided in this call for applications, pursuant to D.P.R. n. 445/2000, artt. 43 and 71. The University administration reserves the right, at any time, to exclude candidates from the selection procedure. The University administration will also check the veracity of candidates' self-declarations: candidates found to have made false declarations may face criminal proceedings and administrative sanctions, pursuant to art. 76 of D.P.R. 445/2000.

Art. 6
EDiSU benefits

1. PhD students, pursuant to D.P.C.M. of April 9, 2001, are entitled to enjoy, under the same conditions of the other students, the benefits offered by the University of Pavia's EDiSU (Institution for the Right to Study).

2. Candidates who wish to enjoy these benefits (scholarships, accommodation, reduced meal prices at canteens etc.) must consult the http://www.edisu.pv.it/ website where the call for applications for the above-mentioned benefits will be advertised. Candidates are allowed to apply for the EDiSU benefits before the PhD competition and before their possible enrolment In the PhD course.

Art. 7
Examining Committee

1. The Committees in charge of the PhD competitions are appointed by the Rector in accordance with the University of Pavia's "Regulations for PhD courses".

2. Upon approval of the Academic Board, one or more members of the Committee can take part in the selection procedure via videoconference.

3. The composition of the examining Committees will be published, after the announcement deadline has passed, on the phd.unipv.it/bando-37/ website.

Art. 8
Selection procedure

1. Admission to the PhD courses is subject to the passing of a selection procedure aimed at assessing candidates' competence, ability and aptitude for research. In Annex 1 the tests dates and locations, selection procedures and notes for each PhD competition are listed.

2. The selection procedure can be of three types:

    a. *Selection procedure by qualifications assessment and tests (written test and interview)*

    The selection procedure by qualifications assessment and tests consists of a comparative assessment of the qualifications submitted by candidates, as well as two tests.
    The admission tests consist of a written test and an interview, including a verification of candidates' knowledge of a foreign language, selected from those listed for each PhD courses and indicated by the candidate in the application.
    The examining committee can assign up to 30 points per test for the evaluation of each candidate.
    The written test may consist of examinations, exercises and essays on topics related to the PhD course.
    Candidates who have passed the written test with a score of 21 points or more are admitted to the interview. The interview is deemed to have been passed if a candidate obtains a score of 21 points or more.
    If specified in Annex 1 (p. 17 ff.), candidates can ask to be interviewed via videoconference, by selecting the appropriate option during the online application procedure (see art. 5).
    Unless otherwise specified in Annex 1, the examining committee can assign up to 10 points for candidates' qualifications for each PhD course, divided as indicated in

Annex 1. The qualifications assessment takes place after the written test and before the correction of the papers. The results of the qualifications assessment will be announced before the interview.

b. *Selection procedure by qualifications assessment and interview*

Unless otherwise specified in Annex 1, the examining committee can assign up to 10 points for candidates' qualifications, divided as specified in Annex 1 for each PhD course. For each PhD course, a minimum threshold may be set for admittance to the interview, as indicated in Annex 1. The results of the qualifications assessment will be announced before the interview, with the modalities and timing indicated in Annex 1.

The interview includes a verification of candidates' knowledge of a foreign language, selected from those listed for each PhD course. The examining committee may assign up to 30 points as an interview points scale. The interview is deemed successful if a candidate obtains a score of 21 points or more.

c. *Selection procedure by qualifications assessment only*

Unless otherwise specified in Annex 1, the examining committee can assign up to 10 points to candidates' qualifications for each PhD course, divided as indicated in Annex 1. Candidates who have obtained at least 7 points out of 10 are admitted to the ranking list.

3. The examining committee will draw up specific reports. Candidates will be ranked in descending order by totaling the scores obtained by each candidate in the scheduled tests and the qualifications assessment.

4. If candidates have an identical score on the ranking list, the positions with scholarship will be awarded on a means basis, pursuant to D.P.C.M. of April 9, 2001 and subsequent modifications and additions; for positions without a scholarship, the youngest candidate will have priority.

5. The President of the Committee will submit to the University Administration the competition reports.

6. **The admission tests schedule, indicated in Annex 1 of this call (p. 17 ff.), is equivalent to a notification to applicants. Possible modifications in the dates and locations of the tests will be announced on the phd.unipv.it/bando-37/ website. Candidates will not receive any further communication from the University administration office. Should the current situation of emergency persist, the Committees, in compliance with ministerial and rectoral resolutions, are entitled to establish new admission procedures for PhD courses, that will be communicated on the phd.unipv.it/bando-37/ website at least 7 days before the date of the first on-site test (see Annex 1 of this call).**

7. On the day of the on-site tests, candidates will be asked to show a valid identity document. On the same occasion, candidates will also have to sign the printed application form which must then be handed in to the Committee.

8. **Failure to take part in the admission tests will be considered as constituting a withdrawal from the application process.**

Art. 9
Admission to the PhD courses

1. The Rector, by Rectoral Decree, acts to verify the validity of the competition records and approves the ranking lists. Candidates who have placed highly on each ranking list are declared winners, provided they meet the admission requirements for access to the PhD competition and enrolment onto a PhD course.

2. Candidates are admitted to the PhD courses in the ranking list order until all positions for the given PhD course are taken. Should a candidate decide not to take up his/her place before the start of the course, their place may be taken by other candidates following the ranking list order. Should a candidate win more than one competition, he/she will have to choose only one PhD course and communicate this choice in writing.

3. Before the beginning of the educational activity of the PhD course, additional students already selected by specific committees in the framework of international programs involving the University of Pavia can be admitted to the course.

Art. 10
Public Administration employees

1. Prevailing laws regarding time off work or special leave will apply to any public administration employees admitted onto a PhD course.

Art. 11
Enrolment

1. The ranking lists will be published on the University's official noticeboard http://www-5.unipv.it/alboufficiale/ and on the https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng website. In order to check their results, candidates have to login by entering the username and password provided at the end of the registration procedure, click on "Admissions" from the top right menu and then on "Admission test". **Candidates will not be informed personally: the publication of the ranking list is equivalent to an official notice to applicants.**

2. Candidates can appeal against the approval of the ranking list to the TAR (Regional Administrative Tribunal) within 60 days from the publication of the results on the University's official noticeboard, or make a special appeal to the President of the Republic within 120 days; in the absence of an appeal, the provision shall be incontrovertible.

3. **Successful applicants must enrol** in the PhD course by following the instructions provided at phd.unipv.it/call-37/.

4. Successful applicants who do not yet hold the second-level degree necessary to enrol onto a PhD course will be conditionally admitted. By the deadline of October 31, 2021 they will have to provide the University Administration office with proof of graduation by following the procedure described in Art. 2, para. 1.

5. Candidates in possession of an academic degree obtained in a non-EU country, if successful, will have to provide the University administration, within a deadline agreed with the office, the following documents:

   a. legalized degree certificates, bearing the list of the exams taken during their academic career and the marks obtained;

   b. the original *"Dichiarazione di Valore in Loco"*, issued by the competent italian diplomatic representative in the country where the academic qualification has been attained.

   In case of documents in a language different from Italian or English candidates will have to submit, together with the original documents, their sworn and legalized translation into Italian or English. The University administration reserves the right to ask students to provide additional documents if necessary to carry out the appropriate checks on the degree. The Administration office also reserves the right to ask students holding a foreign degree obtained within the EU to provide the "Dichiarazione di Valore in Loco" in cases where its validity is doubted.

6. Upon enrolment, non-EU citizens resident abroad must submit to the Administration office, within a deadline agreed with the office, a photocopy of their residence permit or application for the residence permit.

7. Competition winners will have to pay, through the payment notice provided at the end of the application procedure, the enrollment fee, amounting to € 156.00.

8. Successful candidates with scholarship, **who do not enrol and pay the enrolment fee by the deadline of 5 days from the day following the publication online** (https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng) **of the ranking list**, will be considered as having **forsaken** their position.

   Successful candidates without scholarship, **who do not enrol and pay the enrolment fee by the deadline of 7 days from the day following the publication online** (https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng) **of the ranking list**, will be considered as having **forsaken** their position.

9. The University Administration reserves the right to check the validity of winners' declarations. Any applicants found to have made false statements will lose the benefits deriving from these declarations.

Art. 12
Scholarships

1. Unless otherwise specified in Annex 1, the annual gross amount of a PhD scholarship is € 15,343.28, including the I.N.P.S. contribution that is at the expense of the scholarship holder. PhD scholarships are regulated by the provisions of Law n. 476 of August 13, 1984, art. 4.

2. The Rector, by Rectoral decree, awards the scholarships to the successful candidates following the order of the ranking lists and until all scholarships for the given PhD course have been assigned.

3. Scholarships have a duration of one year and are confirmed annually, provided that the student has been admitted to the following year by the Academic Board.

4. The scholarships are paid in monthly deferred instalments.

5. The scholarship amount is increased by 50%, for a period not exceeding 18 months in total, in case of research periods carried out at foreign institutions, duly authorized in advance by the Academic Board.

6. PhD scholarships cannot be combined with apprenticeship contracts, research grants or other scholarships awarded for any reason whatsoever. The only exceptions are scholarships assigned by national or international bodies to support with internships abroad the research activities.

7. Students who have already benefited from a PhD scholarship, even partially, are not eligible for a second one.

8. Starting from the 2nd year, to each PhD student, with or without scholarship, a budget for research activity in Italy and abroad is awarded, amounting to 10% of the scholarship, in accordance with the provisions of the Ministerial Decree n. 45 of February 8, 2013, art. 9.

Art. 13
PhD students' obligations

1. Admission onto a PhD course entails full-time and dedicated commitment. Course activities are mandatory and are organised and structured by the Academic Board of each PhD course. The Academic Board may set specific rules for PhD courses jointly supervised with companies, institutes or public research centres, students of medical specialisation schools or public administration employees attending PhD courses.

Art. 14
PhD students' teaching activity

1. The PhD student, if authorised by the Academic Board, may act as a tutor as well as fill a supplementary teaching role up to a maximum of 40 hours per academic year. PhD students in the medical area can take part in clinical and assistance activities.

Art. 15
Joint attendance with medical specialisation schools

1. Final-year students of the University of Pavia's medical specialisation school, who have successfully passed the PhD competition, can enrol onto a PhD course provided that the joint attendance has been approved by the specialisation school Committee.

2. The joint attendance must be requested to the University Administration at the same time as the enrolment onto the PhD course, enclosing the following documents:

    a. written authorization issued by the specialisation school Committee, testifying that the attendance to the PhD course is compatible with the activity and the commitment requested by the specialisation school;

    b. list of the publications and self-declaration on the research activity carried out during the specialisation school.

3. During the year of joint attendance, the student is not entitled to receive a PhD scholarship.

Art. 16
Incompatibility

1. Enrolment onto a PhD course is incompatible with a simultaneous enrolment on a degree course, Italian "Master" course, non-medical specialisation school, TFA (*Tirocinio Formativo Attivo* - Active Educational Training) or other PhD course (except in cases of joint-supervision agreements with a foreign institution) both in Italy and abroad.

Art. 17
Ethical Code

1. PhD students will have to abide by the provisions of the University of Pavia Code of Ethics, available at the following link: https://web.unipv.it/ateneo/statuto-regolamenti/.

Art. 18
Final exam and attainment of the PhD degree

1. The title of PhD ("Dottore di ricerca") is attained following a positive assessment of a research thesis which contributes to the progress of knowledge or methodology in the research field chosen by the PhD student. The thesis is publicly discussed in front of a committee appointed by the Rector.

   Unless otherwise specified in Annex 1, the PhD degree is awarded by the Rector of the University of Pavia.

2. The attainment of the PhD degree will be certified by the University administration after the upload of the complete version of their PhD theses in the University's electronic archives by the PhD graduate. The University will take care of depositing the theses, according with the current Italian laws, at the National Libraries of Roma and Firenze where they will be conserved and made available for public consultation.

Art. 19
Use of personal data

1. Pursuant to art. 13 of the General Data Protection Regulation (EU) 2016/679, the information supplied by candidates will be gathered by the University of Pavia's Research and Third Mission Unit and used for the management of the admission competitions and of the possible candidates' academic career. Granting consent for the handling of personal data is

therefore obligatory and failure to do so will result candidates' exclusion from the competition.

2. The information provided by the candidates will be communicated to the University of Pavia's administrative offices and to the departments directly concerned with the legal and financial positions of the successful candidates.

3. Candidates are entitled to the rights stated in art. 13 of the General Data Protection Regulation (EU) 2016/679, including access to their personal data, its modification, updating, integration, cancellation etc., and likewise reserve the right to oppose any use of the data other than the institutional purposes stated above.

Art. 20
Head of Administrative Procedures

1. The Manager of Administrative Procedures, under Law no. 241 of 7 August 1990 and subsequent modifications and additions, is Ms Sofia Baggini, Head of the Research and Third Mission Unit. For information please contact the Research and Third Mission Unit – Via Ferrata n. 5 – Pavia (Italy), tel. +39 (0)382 985021 or 985983/37/84, e-mail concorso-dottorati@unipv.it.

Art. 21
Final regulations

1. In relation to any issues not explicitly specified in this announcement, the provisions of existing Italian legislation on PhD courses and of the University of Pavia's "Regulations for PhD courses" n. 1223 of July 24, 2013 apply.

2. Only the Italian version of this call for applications will be binding in case of controversies.

Pavia, May 25th, 2021

ANNEX 1

MACRO-AREA OF SCIENCE AND TECHNOLOGY

**PhD COURSE
IN BIOENGINEERING, BIOINFORMATICS AND HEALTH TECHNOLOGIES**

LOCATION: DEPARTMENT OF ELECTRICAL, COMPUTER AND BIOMEDICAL ENGINEERING

COORDINATOR: Prof. SILVANA QUAGLINI

RESEARCH TOPICS: bioinformatics, biomedical informatics, modeling of biological systems, biomedical technology, computational biomechanics, biological tissue engineering, biomaterials, synthetic biology

POSITIONS WITH SCHOLARSHIP	5	3 scholarships funded by the University of Pavia
		2 scholarships funded by the Department of Electrical, Computer and Biomedical Engineering
POSITIONS WITHOUT SCHOLARSHIP	2	
TOTAL POSITIONS	7	

ADDITIONAL POSITIONS JOINTLY SUPERVISED WITH COMPANIES: 1

Such position is reserved to candidates already employed by IRCCS Policlinico San Donato (via Morandi, 30 - San Donato Milanese - MI).

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1

The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions.

For all types of "additional positions", the Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview.

Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 15 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

- a. motivation letter in Italian or English language (max 500 words) (up to **1** point);

- b. research project either in Italian or in English (max. 1500 words, bibliography not counted), related to PhD research topics. The project's structure should be as follows: short general introduction about the state of the art relative to the chosen topic; presentation of the research's objectives; discussion of the expected results; evaluation of the theoretical and/or practical implications (up to **5** points);

- c. exams taken during the candidate's degree courses, bearing the mark (up to **6** points);

- d. scientific publications (up to **1** point);

- e. *curriculum vitae* (up to **2** points).

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

<u>**The minimum score to be admitted to the interview is 8/15.**</u>

The results of the qualifications assessment will be published online no later than **September 10, 2021**. The results will be posted on the Department of Electrical, Computer and Biomedical Engineering noticeboard and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 23, 2021, at 9:30 (CET), "Aula Seminari" of the Department of Electrical, Computer and Biomedical Engineering (ex "Aula Dipartimento di Informatica e Sistemistica") - Floor D - Via Ferrata n. 5 – Pavia.

The research project will be discussed during the interview and is meant to verify the candidate's aptitude towards research. It will not be binding if the candidate is admitted onto the PhD course.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFO: http://phdbb.unipv.eu/

The PhD program consists in the following curricula:

1. Big data and biomedical informatics
2. Diagnostic, therapeutic and rehabilitative bioengineering
3. Cell and tissue Bioengineering

**PHD COURSE
IN COMPUTATIONAL MATHEMATICS AND DECISION SCIENCES**

LOCATION: DEPARTMENT OF MATHEMATICS "F. CASORATI"

COORDINATOR: Prof. LUCA FRANCO PAVARINO;

COOPERATING INSTITUTION: Università della Svizzera Italiana (USI)

The PhD degree will be jointly conferred by the Rector of the University of Pavia and the Rector of the Università della Svizzera Italiana (USI).

PhD students will have to spend a mobility period at the Università della Svizzera Italiana of at least six months over the three years.

RESEARCH TOPICS:

Computational Mathematics: theoretical and computational tools for applied Sciences and Engineering

Scientific Computing: algorithms for continuous and discrete mathematical models, parallel and distributed computing, numerical simulation

Numerical Analysis: numerical methods for ordinary and partial differential equations, approximation of data and functions, numerical linear algebra

Mathematical Analysis and Modeling: ordinary and partial differential equations, functional analysis, variational models and methods, calculus of variations

Biomathematics: mathematical and numerical modeling in Biology, Physiology, Medicine, and Neurosciences

Mathematical Physics: kinetic theory, granular media, statistical mechanics, diffusion equations, hyperbolic systems, socio-economic modeling

Computational Physics: mathematical and computer methods in Elementary Particle and High Energy Physics, Monte Carlo methods, quantum computing

Biophysics: biophysical models and Monte Carlo methods in Radiotherapy and Hadrotherapy

Computational Statistics: multivariate Statistics, data analysis, Bayesian Statistics, analytical models for Big Data and Data Sciences

Decision Sciences: decision models, decision under uncertainty, risk theory, game theory

Optimization and Operational Research: Optimization methods and algorithms, convex, integer, quadratic, and nonlinear programming, Control Theory

Machine and Deep Learning: Machine Learning, Artificial Neural Networks, Deep Learning, Big Data Analytics, Bio Data Science

This year a special interest will be placed on: Computational Cardiology and Neurosciences, Machine Learning and Artificial Intelligence in Optimization. Please see the following table about available scholarships.

A more detailed description of the research carried out in this PhD program is available at http://compmat.unipv.it/. For details about research at the University of Pavia, see http://matematica.unipv.it/, for details about research at USI Institute of Computational Sciences see https://www.ics.usi.ch.

POSITIONS WITH SCHOLARSHIP	5	1 scholarship funded by USI
		1 scholarship funded by the Department of Mathematics "Felice Casorati"
		1 scholarship funded by the Department of Mathematics "Felice Casorati", HPC2020 funds, Microcard project, PI prof. Luca F. Pavarino
		1 scholarship funded by the Department of Mathematics "Felice Casorati", PI prof. Stefano Gualandi
		1 scholarship funded by Fondazione Istituto Neurologico Casimiro Mondino, research topic "Machine learning and texture analysis in Neuroradiology in the field of brain, medulla and muscle neurological pathologies".
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	6	

ADDITIONAL POSITIONS JOINTLY SUPERVISED WITH COMPANIES: 1

Such position is reserved to candidates already employed by Assicurazioni Generali SpA (Piazza Duca degli Abruzzi, 2 – Trieste).

For all additional positions, the Committee will draw up specific reports and separate ranking lists.

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference. Candidates are allowed to take the interview in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 15 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

   a. letter of intent written in English (max 2000 words) including the research project to be carried out during the PhD course. This will not be binding if the candidate is admitted to the PhD program: up to **3 points**;

b. exams taken during the candidate's masters degree course: up to **4 points**;

c. a maximum of 1 reference letter, issued and submitted directly by a professor from the university where the applicant's degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee: up to **2 points**;

d. abstract of the Master thesis, if available (max 1000 words), publications and preprints. Concerning publications and preprints, candidates may also send an abstract and indicate a DOI (Digital Object Identifier), or otherwise provide a link to a web repository. Only publications from the last 5 years that are congruent with the research topics of the PhD course will be considered: up to **2 points**;

e. curriculum vitae: up to **4 points**.

Except for the reference letter, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

<u>The minimum score to be admitted to the interview is 10/15.</u>

The results of the qualification assessment will be published online no later than **July 12, 2021**. The results will be posted in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: July 15, 2021 at 9:00 (CET), via videoconference.

The interview will be held in Italian or English and will verify the candidate's knowledge of English. The interview will concern the main topics covered by the PhD course and will include a short presentation of the research project meant to verify the candidates' aptitude towards research.

Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: http://compmat.unipv.it/

AMOUNT OF THE SCHOLARSHIPS

Each scholarship has a gross annual amount of € 16,238.47.

DETERMINATION OF THE UNIVERSITY AFFILIATION

PhD students will be affiliated to the University (UNIPV or USI) providing their scholarship. Once the ranking list has been determined, selected candidates will be asked to express their preference regarding the university affiliation. The Academic Board of the PhD course will then assign the scholarships based on the candidates' preference, until the scholarships of one of the two Universities have all been attributed. The remaining scholarship grantees will be assigned the scholarships of the other University, irrespective of their indicated preference. The winner of the position without scholarship will be affiliated to the University of his/her choice.

PLEASE NOTE: Candidates who are interested in applying for the scholarship funded by the Fondazione Istituto Neurologico Casimiro Mondino, to undertake research in "Machine learning and texture analysis in Neuroradiology in the field of brain, medulla and muscle neurological pathologies", must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up a specific ranking list.

PhD COURSE
IN DESIGN, MODELING, AND SIMULATION IN ENGINEERING

LOCATION: DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE

COORDINATOR: Prof. ALESSANDRO REALI

RESEARCH TOPICS: Civil Engineering, Hydraulic Engineering, Building Engineering and Architecture, Computational Mechanics, Industrial Engineering, Applied Mathematics, Materials Engineering.

POSITIONS WITH SCHOLARSHIP	**6**	4 scholarships funded by the University of Pavia 1 scholarship funded by "Facing Global Challenges" project, research topic "3D Print and Advanced Materials" 1 scholarship funded by CNR and MIMETE Srl, research topic "Additive manufacturing for industrial applications: production process optimization from powder to final component"; **1 scholarship funded by the Department of Civil Engineering and Architecture, topic "Liquid handling automation in tissue engineering".**
POSITIONS WITHOUT SCHOLARSHIP	**2**	
TOTAL POSITIONS	**9**	

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1

The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions.

For all types of "additional positions", the Committee will draw up specific reports and separate

ranking lists.

ADMISSION PROCEDURE: qualifications assessment and interview. Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure see art. 5 of this Call for applications).

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

  a. exams taken during the candidate's degree courses, bearing the marks (up to **5** points);

  b. abstract of the master thesis, scientific publications, preprints (up to **2** points);

  c. *curriculum vitae* (up to **3** points).

The minimum score to be admitted to the interview is 7/10.

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The results of the qualifications assessment will be published online no later than **September 13, 2021.** The results will be posted on the Department of Civil Engineering and Architecture noticeboard and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 20, 2021, at 10:00 (CET), Aula MS1 of the Department of Civil Engineering and Architecture – Via Ferrata n. 3, Pavia.

The interview will concern the main topics covered by the PhD course.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION:

http://phd.unipv.it/phd-program-in-design-modeling-and-simulation-in-engineering/

The PhD course involves the following programs:

  a. Civil Engineering and Architecture – tracks: i) Structures and Materials; ii) Hydraulic, Environment & Energy Engineering; iii) Building Engineering/Architecture

  b. Computational Mechanics.

PLEASE NOTE: Candidates who intend to apply for the scholarships with research topic "3D Print and Advanced Materials" and "Additive manufacturing for industrial applications: production process optimization from powder to final component" must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

PhD COURSE
IN PHYSICS

LOCATION: DEPARTMENT OF PHYSICS

COORDINATOR: Prof. DANIELA MARCELLA REBUZZI

TOPICS: Nuclear and subnuclear physics, theoretical and mathematical physics, condensed matter physics (including experimental and theoretical solid-state physics, optics and photonics, quantum information), interdisciplinary and applied physics (biomedical physics, energy, ICT-Information and communication technology)

POSITIONS WITH SCHOLARSHIP	**12**	n. 7 scholarships funded by the University of Pavia; n. 2 scholarship funded by the National Institute of Nuclear Physics; n. 2 scholarships funded by the Department of Physics (ERC-2019-StG ULTRAIMAGE, Fondazione Cariplo – Project 2020-2544 NanoFast) to undertake research in: "A flexible beamline for ultrafast soft X-ray ptychography experiments" e "Ultrafast electron ptychography of hybrid 2D nanomaterials" * n. 1 scholarship funded by the Department of Physics (FETOPEN-2018-2020 NECTAR) to undertake research in: "Feasibility of Neutron Capture Therapy against neurotoxic amyloid aggregates" *
POSITIONS WITHOUT SCHOLARSHIP	**3**	
TOTAL POSITIONS	**15**	

* The annual gross amount of all scholarship funded by the Department of Physics is € 18,000.00.

ADMISSION PROCEDURE: qualifications assessment and interview. Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications). The candidates' qualifications must, in the judgement of the examining committee, meet the standards of a solid application story. Subsequently, the preparation of the applicants is evaluated in an interview, whose purpose is to demonstrate a comprehensive knowledge of basic Physics and to assess the student's analytic ability, creativity, and potential for successful completion of the PhD course in Physics.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. exams taken during the candidate's degree courses, bearing the marks (up to **4** points);
b. Master's degree thesis, possible publications and professional experience. A 2-page abstract of the thesis must be attached to the application. Publications and similar documents must be attached to the application in their complete version (up to **2** points);
c. outline of the research project (max 2 pages), in Italian or English. This will not be binding if the candidate is admitted onto the PhD course (up to **2** points);
d. a maximum of 2 reference letters, issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referees who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, these letters must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee (up to **2** points).

Except for the reference letters, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 5/10.

The results of the qualifications assessment will be published online no later than **July 31, 2021.** The results will be posted on the Physics Department noticeboard and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 9, 2021, at 9:00 (CET), Physics Department, Via Bassi n. 6, Pavia.

The interview will concern the main topics covered by the PhD course and the research project.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: http://www-2.unipv.it/dottorati/scienzeetecnologie/fisica/index.php

The PhD course involves the following programs:

1. Physics of Fundamental Interactions;
2. Condensed Matter;
2. Interdisciplinary and Applied Physics.

PLEASE NOTE: Candidates who intend to apply for one of the following scholarships:

– n. 2 scholarship funded by the Department of Physics (ERC-2019-StG ULTRAIMAGE, Fondazione Cariplo – Project 2020-2544 NanoFast) to undertake research in: "A flexible

beamline for ultrafast soft X-ray ptychography experiments" e "Ultrafast electron ptychography of hybrid 2D nanomaterials

- n. 1 scholarship funded by the Department of Physics (FETOPEN-2018-2020 NECTAR) to undertake research in: "Feasibility of Neutron Capture Therapy against neurotoxic amyloid aggregates

must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

PhD COURSE
IN ELECTRONICS, COMPUTER SCIENCE
AND ELECTRICAL ENGINEERING

LOCATION: DEPARTMENT OF ELECTRICAL, COMPUTER AND BIOMEDICAL ENGINEERING

COORDINATOR: Prof. PAOLO DI BARBA

RESEARCH TOPICS: Photonics and Space Communications Systems, Computer Engineering and Automation, Electrical Engineering. The PhD course includes three programs, among which an international program in cooperation with the Lodz University of Technology, Poland.

POSITIONS WITH SCHOLARSHIP	12	8 scholarships funded by the University of Pavia
		1 scholarship funded by the Department of Electrical, Computer and Biomedical Engineering to undertake research in "Processing of multi-sensor Big spaceborne SAR data sequences for land cover type analysis"
		1 scholarship funded by the Department of Electrical, Computer and Biomedical Engineering to undertake research in "Human-in-the-Loop Modeling and Simulation"
		1 scholarship funded by AITEM to undertake research in "Health and safety procedures to assess next generation lasers for industrial, medical and civil applications";
		1 scholarship funded by Temis srl to undertake research in "Study and design of a working prototype of wireless environmental sensors network for launcher application".
POSITIONS WITHOUT SCHOLARSHIP	3	

TOTAL POSITIONS	15	

ADDITIONAL POSITIONS JOINTLY SUPERVISED WITH COMPANIES - Rebel Dynamics S.r.l: 1.
Such position is reserved to candidates already employed by Rebel Dynamics S.r.l. (Via Leonardo Da Vinci, 10 - Lecco).

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1.

The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions.

For each type of "additional position", the Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference.
Candidates are allowed to take the interview in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. degree marks of both the bachelor and master's degree. If the master's degree hasn't been attained yet, the marks obtained during the master's degree course will be considered, provided that at least half of the total credits required for the master's course have been achieved by the date of the application submission (up to **6** points);
b. publications (up to **1** point);
c. curriculum vitae (up to **1** point);
d. 2 reference letters, issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. The Committee will assess the relevance of what is declared in the letter and the scientific reputation of the person signing the letter. During the online application, the candidate will enter the contact data of the chosen referees who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee (up to **2** points).

Except for the reference letters, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 6/10.

The results of the qualifications assessment will be published online no later than **July 28, 2021**. The results will be posted on the Department of Electrical, Computer and Biomedical Engineering

noticeboard and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 9, 2021, at 9:30 (CET), via videoconference.

Candidates will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties

INFORMATION: http://www.unipv.it/dottIEIE

The PhD course involves the following programs:

- a. Photonics and Space Communications Systems;
- b. Computer Engineering and Automation – including the curriculum in Financial Technologies (FinTech);
- c. Electrical Engineering (in cooperation with the Lodz University of Technology, Poland)

PLEASE NOTE: Candidates who are interested in applying for one of the following scholarships:

- n. 1 scholarship funded by the Department of Electrical, Computer and Biomedical Engineering to undertake research in "Processing of multi-sensor Big spaceborne SAR data sequences for land cover type analysis";

- n. 1 scholarship funded by the Department of Electrical, Computer and Biomedical Engineering to undertake research in "Human-in-the-Loop Modeling and Simulation";

- n. 1 scholarship funded by AITEM to undertake research in "Health and safety procedures to assess next generation lasers for industrial, medical and civil applications"

must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

**PhD COURSE
IN MATHEMATICS**

LOCATION: DEPARTMENT OF MATHEMATICS "F. CASORATI"

COORDINATOR: Prof. THOMAS WEIGEL

COOPERATING INSTITUTION: University of Milano-Bicocca, Istituto Nazionale di Alta Matematica "F. Severi" (INdAM) and CIAFM.

The PhD degree will be jointly conferred by the Rector of the University of Pavia and the Rector of the University of Milano-Bicocca.

CURRICULA:

1. Algebra and Geometry;
2. Mathematical Analysis;
3. Numerical Analysis and Mathematical Modelling;
4. Mathematical Physics
5. Probability, Statistics and Mathematical Finance
6. Mathematics in Life Sciences and Physics

RESEARCH TOPICS:

With indications of the university Milano-Bicocca (MIB) or Pavia (PV) where they are developed:

Algebra and Geometry: group theory, theory of Lie algebras and their representations (MIB); category theory, algebraic geometry (PV), real and complex differential geometry (MIB and PV), symplectic geometry (MIB) and hyperbolic geometry (PV).

Mathematical Analysis: partial differential equations and their applications in physics, biology and engineering; control and optimization theory, nonlinear and functional analysis (MIB and PV); harmonic and geometric analysis (MIB); variational models and techniques, calculus of variations (PV).

Numerical Analysis and Mathematical Modelling: study of numerical methods (finite elements, isogeometric and virtual techniques) aimed at solving partial differential equations in the context of solid mechanics, fluid dynamics, interaction between fluids and structures, electromagnetism, and and with focus on applications in engineering and biomathematics; constrained optimization models and methods; computer aided design, approximations of data and functions, numerical linear algebra (MIB and PV).

Mathematical Physics: soft matter mathematical modelling, kinetic theory, classical and quantistic field theory, complex systems (PV); fluid mechanics (PV e MIB), geometric and analytic theory of integrable systems, Frobenius manifolds, dynamical systems and mathematical methods of quantum mechanics (MIB).

Probability, Statistics and Mathematical Finance: stochastic differential equations, statistical mechanics, stochastic control theory (MIB and PV); random walks, systems with interacting particels, economical and finantial applications (MIB); quantum probability, convergence of probability measures, finitely additive probability measures, bayesian statistics (PV).

Mathematics in Life Sciences and Physics: intersectoral subjects with the study of biological, biomedical, physical and thermomechanical models (MIB and PV, in collaboration with Surrey University).

A more detailed description of the research interests of the members of the Academic Board of the PhD course and of the research topics carried out by the two participating departments is available at http://phd.unipv.it/phd-program-in-mathematics/, as well as in the websites http://www.matapp.unimib.it/ and http://matematica.unipv.it/ of the two departments.

POSITIONS WITH SCHOLARSHIP	12	4 scholarships funded by the University of Pavia; 4 scholarships funded by the University of Milano-Bicocca; 2 scholaships funded by Istituto Nazionale di Alta Matematica "F. Severi" (INdAM); 1 scholarship funded by Università Cattolica del Sacro Cuore, research topic "Variational problems for beams and membranes"; 1 scholarship funded by the Department of Pure and Applied Mathematics of the University of Milano-Bicocca, research topic "Mathematics in Life Sciences and Physics" *
ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY	2	The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions. The Committee will draw up specific reports and a separate ranking list.
POSITIONS WITHOUT SCHOLARSHIP	0	
TOTAL POSITIONS	14	

* The scholarship funded by the Department of Mathematics and Applications of the University of Milan-Bicocca is jointly supervised with the University of Surrey (UK). It is mandatory for the winner of this scholarship to go on a mobility period of at least 12 months at the University of Surrey. The joint supervision is subject to the payment of charges towards the host university (University of Surrey). The main place of work will be the University of Milano-Bicocca. For this position, the interview will be held in English. To be admitted to the University of Surrey, the candidate must have a Cambridge certification at least level C1 or IELTS, score 6.5 or higher.

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference.
Candidates are allowed to take the interview in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 15 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:
   a. curriculum vitae: up to **3 points**;

b. exams taken during the candidate's degree courses, bearing the marks and both arithmetic and weighted mean (candidates must not consider honours while calculating the mean): up to **5 points**

c. a minumum of 1 reference letter, in Italian or English language, issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referees who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee: up to **4 points**;

d. abstract of the master thesis, publications and pre-prints. For publications and pre-prints, candidates can send an abstract and a link to an online repository or a DOI (*digital object identifier*): up to **3 points**;

In addition to the above-mentioned qualifications, candidates will have to submit a motivation letter, specifying which of the two participating departments they find most suited to their scientific interests (Department of Pure and Applied Mathematics at the University of Milano Bicocca, or "F. Casorati" Department of Mathematics of the University of Pavia). The candidate's choice must be scientifically motivated. The motivation letter will not be assessed, but it will be used as a starting point for the interview.

Except for the reference letters, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 7/15.

The results of the qualifications assessment will be published online no later **17 July 2021**. The results will be posted in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: 22 July 2021. Videoconference starting at 9.00.

The oral exam will take place in Italian or English and will in any case verify the knowledge of the English language. The interview will concern the main topics covered by the PhD course and will take its cue from the motivation letter submitted by the candidate. Candidates are asked to prepare a presentation (max 15 minutes, with possible use of slides in pdf format).

Before the interview, candidates will be asked to show the same valid identity document whose details were entered during the application procedure. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

PLEASE NOTE: Candidates who intend to apply for the following scholarships:

– 1 scholarship funded by Università Cattolica del Sacro Cuore, research topic "Variational problems for beams and membranes";

– 1 scholarship funded by the Department of Pure and Applied Mathematics of the University of Milano-Bicocca, research topic "Mathematics in Life Sciences and Physics"

must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

INFO: http://phd.unipv.it/phd-program-in-mathematics/

AMOUNTS OF SCHOLARSHIPS: Scholarships funded by the University of Milan-Bicocca and INdAM will have an annual gross amount of € 16,238.47.

DETERMINATION OF THE AFFILIATION TO A DEPARTMENT: At the end of the enrollments, the Academic Board of the PhD program will attribute to each PhD student the affiliation to one of the two departments involved, based upon the preference expressed in the motivation letter, and using the ranking order as a priority criterion, until all the scholarships of one of the two Universities have been assigned. To the first winner, in descending order of the ranking list, who is unable to obtain a scholarship from his/her preferred University, an INdAM scholarship will be assigned; this candidate will be allowed to choose his/her affiliation. Once all the scholarships of either one of the two Universities and the first INdAM scholarship have all been attributed, the remaining winners will be assigned to the other department, irrespective of their indicated preference, and will be attributed the University scholarships first and then the second INdAM scholarship.

PhD COURSE
IN MICROELECTRONICS

LOCATION: DEPARTMENT OF ELECTRICAL, COMPUTER AND BIOMEDICAL ENGINEERING

COORDINATOR: Prof. PIERO MALCOVATI

RESEARCH TOPICS: Design and study of integrated circuits.

POSITIONS WITH SCHOLARSHIP	5	2 scholarships funded by the University of Pavia; 1 scholarship funded by "Facing Global Challenges" project, to undertake research in "Microelectronics"; 1 scholarship funded by "Facing Global Challenges" project, to undertake research in "Digital Fluidics for Life Sciences". 1 scholarship funded by the Department of Electrical, Computer and Biomedical Engineering (cofunded with Fondo Ricerca e Giovani)
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	6	

ADMISSION PROCEDURE: qualification assessment and interview. Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

LINGUISTIC KNOWLEDGE: the candidate's knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 20 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

    a. exams taken during the candidate's degree courses, together with the achieved marks (up to **12** points);
    b. publications (up to **4** points);
    c. other qualifications considered as relevant (up to **2** points);
    d. a maximum of 2 reference letters, issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee (up to **2** points).

Except for the reference letters, the qualifications, as well as a full *curriculum vitae et studiorum*, must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The results of the qualification assessment will be published online no later than **September 8, 2021**. The results will be posted on the Department of Electrical, Computer and Biomedical Engineering noticeboard and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 16, 2021, at 10.00 (CET), at the Engineering Faculty - Via Ferrata n. 5 – Pavia. Candidates are advised to refer to the Dean's secretary to find out the classroom where the exam will take place.

Candidates who in the application procedure requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: http://www.unipv.it/dottMICR

PLEASE NOTE: Candidates who are interested in applying for one of the following scholarships:

    – 1 scholarship funded by "Facing Global Challenges" project, to undertake research in "Microelectronics";
    – 1 scholarship funded by "Facing Global Challenges" project, to undertake research in "Digital Fluidics for Life Sciences"

must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

**PhD COURSE
IN CHEMICAL AND PHARMACEUTICAL SCIENCES,
AND RELATED INDUSTRIAL INNOVATION**

LOCATION: DEPARTMENT OF CHEMISTRY;

COORDINATOR: Prof. GIORGIO COLOMBO;

RESEARCH TOPICS:

Chemistry: Green Chemistry; Asymmetric synthesis, Computational methods in bio-inorganic systems; Ligands for nucleic acids; Polymers for energetics; Supramolecular devices; Functional nanomaterials; Surfaces with molecular monolayers; Adsorbants and solid catalysts for analytical applications; Biomimetic chemosensors; Materials for stone/wood supports; Structures/properties of metallo-enzymes.

Pharmaceutical sciences: Identification of novel neuroprotective and anticancer drugs; drug discovery from plants; macromolecule immobilization; anti-inflammatory nutraceuticals; interaction of molecularly imprinted polymers with biological targets; LC-MS for protein characterization; novel site-specific drug delivery systems; scaffolds and hemoderivatives for tissue repair; stem cell encapsulation; semen encapsulation for zootechnical applications; models of human cartilage.

Industrial innovation: Scale-up of products and processes in the chemical and pharmaceutical fields; development of formulation strategies in pharmaceutical industry.

POSITIONS WITH SCHOLARSHIP	11	5 scholarships funded by the University of Pavia
		1 scholarship funded by the project "Facing Global Challenges", research topic "Sustainable photovoltaics, energy storage and production, decarbonisation and 'Green' processes"
		1 scholarship funded by the Department of Chemistry (Fondazione "Istituto di Ricerca Pediatrica Città della Speranza" funds), research topic "Development of allosteric ligands of TRAP1 with computational and theoretical methods"
		1 scholarship funded by the Department of Chemistry (FARE R18ENKMTA3 funds), research topic "Development and characterization of halide perovskites for photoferroelectric applications" *
		1 scholarship funded by INSTM Consortium (Cariplo – Circular Economy 2020), research topic "Green flexible hybrid perovskite solar module for the market: from smart lead manipulation to recycling" (FLHYPER)"
		1 scholarship funded by the Department of Drug Sciences, research topic "Development of analytical methodologies for the characterization of recombinant proteins"
		1 scholarship funded by SpiroChem AG, research topic "Synthesis via dearomatization of new building blocks for API"
POSITIONS WITHOUT SCHOLARSHIP	4	
TOTAL POSITIONS	15	

* The annual gross amount of the scholarship funded by Department of Chemistry (FARE R18ENKMTA3 funds), research topic "Development and characterization of halide perovskites for photoferroelectric applications" is € 17,501.12.

ADDITIONAL POSITIONS WITH SCHOLARSHIP RESERVED TO CANDIDATES WHO GRADUATED ABROAD: 1

Such positions are reserved to candidates holding a second-level degree attained abroad. The Committee will draw up specific reports and a separate ranking list.

ADDITIONAL POSITIONS RESERVED TO CANDIDATES SELECTED BY "ITN PhotoReAct" INTERNATIONAL MOBILITY PROGRAM: 1

Candidates applying for this position will be selected through qualifications assessment only. The Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview. Candidates are allowed to have the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 15 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

1. arithmetic average of the marks obtained in the exams taken during the candidate's degree courses; in the case of degree obtained in a foreign institution, the committee will use the ECTS grading tables (**up to 9 points**);

2. *curriculum vitae et studiorum* (**up to 3 points**);

3. motivation letter, either in Italian or English (max 1000 characters, spaces included), along with / including a research project developed by the candidate (max 3000 characters, spaces included; max 2 figures), either in Italian or English (**up to 3 points**). The project, which will not be binding if the candidate is admitted onto the PhD program, must contain a general introduction about the state of the art on the topic, a presentation of the research objectives, a discussion of the expected results as well as an evaluation of the theoretical and/or practical implications.

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 9/15.

The results of the qualifications assessment will be published online no later than **September 17, 2021**. The results will be posted on the Chemistry Department noticeboard and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 22, 2021, at 10:00 (CET), at the Department of Chemistry – Aula CG3 (General Section) – Viale Taramelli n. 12 – Pavia.

The interview will concern the topics covered by the PhD course and may include a discussion on the candidates' experimental thesis and/or on the research project, in order to assess their aptitude and potential.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

PLEASE NOTE: Candidates who are interested in applying for one of the scholarships to perform research on the following topics:

− "Development of allosteric ligands of TRAP1 with computational and theoretical methods";

- "Development and characterization of halide perovskites for photoferroelectric applications";
- "Green flexible hybrid perovskite solar module for the market: from smart lead manipulation to recycling" (FLHYPER)";
- "Development of analytical methodologies for the characterization of recombinant proteins";
- "Synthesis via dearomatization of new building blocks for API";

must explicitly state their interest to the examining committee before the interview, declaring their exclusive interest in one of these topics; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up a specific ranking list.

Candidates who are interested in applying for the scholarship to perform research on "Sustainable photovoltaics, energy storage and production, decarbonisation and 'Green' processes" must explicitly state their interest for this topic to the examining committee before the interview. These candidates' interviews will therefore also include a discussion of the project topics. Successful candidates will be included in the general ranking and attributed a specific qualification for the above scholarship. The scholarship will be assigned to the first qualified candidate. Candidates who will renounce the scholarship will be excluded from the ranking.

INFORMATION: please contact the PhD Coordinator Prof. Giorgio Colombo: phd.cfi@unipv.it

PhD course involves the following programs:

a. Chemistry;
b. Pharmaceutical Sciences;
c. Industrial Innovation.

PHD COURSE IN
EARTH AND ENVIRONMENTAL SCIENCES

LOCATION: DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES;

COORDINATOR: Prof. ROBERTO SACCHI;

RESEARCH TOPICS:

Numeric Gully Erosion Assessment in selected Agroecosystems.

Assessing genetic introgression event and morphological effects in reptiles.

Early evolution of mantle-derived magmas involved in the building of the Ivrea Mafic Complex (Italian Alps).

Alpine plant biodiversity across time and space: a multifaceted approach in the context of climate change.

Towards a sustainable development of mushrooms to enhance and extend human lifespan as well as to prevent neurodegeneration.

Fungi as recycling bio-agents for innovative industrial and agri-food applications.

Models and technologies to monitor and predict Earth's crust movements.

The role of structural inheritance in thrust tectonics: the Ligurian Alps case-study.

Biological control for Non-indigenous Crayfish Species (NICS)

Characterization of a depleted reservoir and preliminary evaluation for its conversion from methane to hydrogen storage.

From soil erosion to sediment load: Investigating sediment connectivity between hillslopes and river systems.

Support of A-DInSAR data in ground displacement detection and monitoring for a sustainable land management.

Planetary science data analysis

POSITIONS WITH SCHOLARSHIP	**8**	4 scholarships funded by the University of Pavia
		1 scholarship funded by "Facing Global Challenges" project, research topic "Models and technology to monitor and predict movements of the earth's crust"
		1 scholarship funded by the Department of Earth and Environmental Sciences, research topic "**Biological control for Non-indigenous Crayfish Species (NICS)**" *
		1 scholarship funded by the Department of Earth and Environmental Sciences, research topic "The role of structural inheritance in thrust tectonics: the Ligurian Alps case-study"
		1 scholarship funded by the Department of Earth and Environmental Sciences, research topic "Support of A-DInSAR data in ground displacement detection and monitoring for a sustainable land management".
POSITIONS WITHOUT SCHOLARSHIP	**2**	
TOTAL POSITIONS	**10**	

* The scholarship funded by the Department of Earth and Environmental Sciences, to undertake research in "**Biological control for Non-indigenous Crayfish Species (NICS)**", will have a gross increase of € 4,086.00 per year.

ADDITIONAL POSITIONS JOINTLY SUPERVISED WITH COMPANIES - ITAL GAS STORAGE Spa: 1. Such position is reserved to candidates already employed by ITAL GAS STORAGE Spa (Via Meravigli, 3 – Milano), to undertake research in "Characterization of a depleted reservoir and preliminary evaluation for its conversion from methane to hydrogen storage". The Committee will draw up specific reports and separate ranking lists.

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference. Candidates are allowed to take the interview in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

1. arithmetic mean of the marks obtained in the exams taken during the candidate's degree courses, to be calculated and declared by the candidates themselves (**up to 5 points**);
2. research project and qualifications (**up to 5 points**). The research project (max 5000 characters, spaces included), in Italian or English, must concern one of the research topics included in the PhD course. The project is meant to verify the candidate's aptitude towards research. It will not be binding if the candidate is admitted onto the PhD course. The qualifications include research and development activity for public and private institutions, scientific publications, postgraduate scientific education (internships, training courses, participation to conferences).

The qualifications must be submitted according with the procedure indicated in art. 5, para. 2 of this call for applications.

<u>The minimum score to be admitted to the interview is 5/10.</u>

The results of the qualifications assessment will be announced no later than **July 16, 2021**. The results will be posted in the Personal Area of the candidate in the University website. This can be accessed using the login information provided during registration.

INTERVIEW: July 22, 2021, at 9:30 (CET), via videoconference.

The interview will be held in Italian or English and will be an opportunity to verify the candidate's knowledge of English. The interview will consist in a short presentation of the research project (max 15 minutes; the use of technologic support such as slides is encouraged) that is designed to verify the candidate's aptitude towards research. The research project presented by the candidate will not, in any way, be binding if the candidate is admitted onto the PhD course. More details on programs and research topics are available at the following website: http://phd-dsta.unipv.it/.

Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

PLEASE NOTE: <u>Candidates who intend to apply for one of the scholarships to undertake research respectively in:</u>

- "Models and technology to monitor and predict movements of the earth's crust"
- "Assessing behavioural traits and ecological impacts of invasive crayfish species in freshwater ecosystems
- "The role of structural inheritance in thrust tectonics: the Ligurian Alps case-study"
- "Support of A-DInSAR data in ground displacement detection and monitoring for a sustainable land management"

must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

INFO: http://phd-dsta.unipv.it

MACRO-AREA OF LIFE SCIENCES

PhD COURSE
IN GENETICS, MOLECULAR AND CELLULAR BIOLOGY

LOCATION: DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"

COORDINATOR: Prof. DAVIDE SASSERA

OPEN POSITIONS: see tables below ("regular positions" and "additional positions")

RESEARCH TOPICS:

- Functional and population genomics of humans and animal species, archaeogenomics and epigenomics.

- Molecular and cellular bases of hereditary and complex disorders, aging, cell and organ differentiation and development, evolutionary mechanisms.

- DNA replication and repair, transcription, regulation of gene expression.

- Microorganisms and viruses of clinical and biotechnological relevance. Interactions between prokaryotes and eukaryotes.

- Biotechnological and molecular approaches for the improvement of crop species.

- Functional and structural characterization of potential targets for pharmacological drugs, development of therapeutic molecules and study of mechanisms of action.

For further information please visit: http://phdsgb.unipv.eu/site/en/home/research-topics.html

The call includes 13 regular positions + 1 position reserved for students who graduated abroad.

REGULAR POSITIONS

POSITIONS WITH SCHOLARSHIP	10	9 scholarships funded by the University of Pavia
		1 scholarship funded by "Facing Global Challenges" project, research topic "Emerging Viral Threats"
POSITIONS WITHOUT SCHOLARSHIPS	3	
TOTAL POSITIONS	13	

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview).

Candidates are allowed to take the tests in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the

interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. reference letters (up to two) in Italian or English, issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee (up to **1 point**);

b. scientific publications. Only publications from the last 5 years that are congruent with the research topics of the PhD course will be considered (up to **1 point**);

c. arithmetic mean of the marks obtained in the exams taken during the candidate's degree courses (up to **8 points**).

Except for the reference letters, the qualifications must be submitted according to the procedure described in art. 5, para. 2 of this call for applications.

WRITTEN TEST: September 1, 2021, at 9:30 (CET), Aula "Arturo Falaschi" of the CNR Institute of Molecular Genetics "Luigi Luca Cavalli Sforza" - Via Ferrata n. 1 – Pavia;

INTERVIEW: September 3, 2021, at 9:30 (CET), Aula "Arturo Falaschi" of the CNR Institute of Molecular Genetics "Luigi Luca Cavalli Sforza" - Via Ferrata n. 1 – Pavia.

PLEASE NOTE: Candidates who intend to apply for the scholarship to undertake research in "Emerging Viral Threats" must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

ADDITIONAL POSITIONS

ADDITIONAL POSITIONS WITH SCHOLARSHIP RESERVED TO CANDIDATES GRADUATED ABROAD	**1**	Such positions are reserved to candidates holding a second-level degree attained abroad.

The scholarship is funded by the Department of Biology and Biotechnologies. The winner will be entitled to a scholarship and to free accommodation in a college for 3 years.

ADMISSION PROCEDURE: qualifications assessment and interview. Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

The minimum score to be admitted to the interview is 7/10.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. reference letters (up to two) in Italian or English, issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee (up to **2** points);

b. research activity and scientific publications (up to **4** points);

c. academic achievements (up to **4** points).

The Committee will draw up specific reports and a separate ranking list.

INFORMATION: http://phdsgb.unipv.eu/site/en/home/admission-procedures.html

**PhD COURSE
IN EXPERIMENTAL MEDICINE**

LOCATION: DEPARTMENT OF INTERNAL MEDICINE AND MEDICAL THERAPEUTICS

COORDINATOR: Prof. CARLOMAURIZIO MONTECUCCO

RESEARCH TOPICS: general medicine, medical therapy, experimental surgery, microsurgery, anesthesiology, biomedical technologies, bioethics-noetics in surgical patients.

POSITIONS WITH SCHOLARSHIP	5	4 scholarships funded by the University of Pavia; **1 scholarship funded by the Department of Internal Medicine and Medical Therapeutics, research topic "Pharmacological and mechanical support in cardiogenic shock".**
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	5	

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1

The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions. Candidates applying for this position will be selected through qualifications assessment and an interview in person or via videoconference; the Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview). Candidates are allowed to take the tests in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

   a. *curriculum vitae* (up to **4** points);
   b. former periods of proven research activity at Italian or foreign scientific institutions (up to **3** points);
   c. published full papers in peer reviewed medical journals (up to **3** points).

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

WRITTEN TEST: September 15, 2021, at 9:30 (CET), Aula 3 (floor 1B) – DEA – Fondazione I.R.C.C.S. Policlinico San Matteo – Pavia.

In the written test candidates will have to address one of the topics proposed by the examining committee.

INTERVIEW: September 16, 2021, at 9:30 (CET), Aula 3 (floor 1B) – DEA – Fondazione I.R.C.C.S. Policlinico San Matteo – Pavia.

INFORMATION: http://phdms.unipv.eu

The PhD course involves the following programs:

   a. Internal medicine and medical therapeutics;
   b. Experimental surgery and microsurgery.

PhD COURSE
IN PSYCHOLOGY, NEUROSCIENCE AND DATA SCIENCE

LOCATION: DEPARTMENT OF BRAIN AND BEHAVIORAL SCIENCES

COORDINATOR: Prof. GABRIELLA BOTTINI

RESEARCH TOPICS: Psychology, Neuroscience, Biostatistics, Public Health.

POSITIONS WITH SCHOLARSHIP	7	5 scholarships funded by the University of Pavia
		1 scholarship funded by Istituto Auxologico Italiano to undertake research in "Development of statistical methods for the study and analysis of Stochastic Epigenetic Mutations in the context of chronic degenerative complex diseases"
		1 scholarship funded by Istituto Auxologico Italiano to undertake research in "Identification of new disease genes in related patients affected by amyotrophic lateral sclerosis through autozygosity mapping and genome sequencing".
POSITIONS WITHOUT SCHOLARSHIP	2	
TOTAL POSITIONS	9	

ADDITIONAL POSITIONS JOINTLY SUPERVISED WITH COMPANIES: 1 - I.R.C.C.S. Ospedale San Raffaele - Gruppo San Donato (Via Olgettina, 60 – Milano). Such position is reserved to candidates already employed by I.R.C.C.S. Ospedale San Raffaele - Gruppo San Donato.

ADDITIONAL POSITIONS JOINTLY SUPERVISED WITH COMPANIES: 1 - Fondazione Golgi Cenci (Corso San Martino, 10 – Abbiategrasso – MI). Such position is reserved to candidates already employed by Fondazione Golgi Cenci.

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1

The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions.

For all types of "additional positions", the Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview. Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. motivation letter in Italian or English (max 500 words) mentioning the name of two referees the Committee may contact for a presentation of the candidate **(up to 1 point)**;

b. maximum of 2 reference letters issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee **(up to 1 point)**;

c. research project in Italian or English (max. 3000 words), related to PhD research topics. The project's structure must be novel and original and must be written as follows: 1) general introduction about the state of the art relative to the chosen topic; 2) presentation of the research objectives; 3) description of the of materials and methodology (procedure, data analysis); 4) discussion of the expected results with evaluation of the theoretical and/or practical implications of the research project. In any case, the project will not constitute a binding work program in case of admission to the doctorate **(up to 5 points)**;

d. arithmetic mean of the marks obtained in the exams taken during the candidate's degree courses **(up to 3 points)**. For students with qualifications obtained abroad, a transcript of the grades is required, showing:

   i. the arithmetic mean of the exams obtained for each course of study;

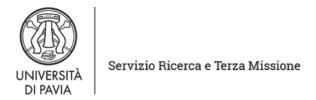   ii. the minimum grade for sufficiency and the maximum grade in the university of origin.

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications. The candidates will make sure to include their curriculum vitae.

The minimum score to be admitted to the interview is 7/10.

The results of the qualifications assessment will be published online no later than **September 15, 2021**. The results will be posted on the Department of Brain and Behavioral Sciences (Psychology section) noticeboard (Piazza Botta n. 11, Pavia) and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 21, 2021, **starting from 9:30 (CET),** Sala Riunioni, Department of Brain and Behavioral Sciences (Psychology section), Piazza Botta n. 11, Pavia. If the interview is held in Italian, the Committee will verify the candidate's knowledge of the English language through the reading and translation of a short text taken from an essay or scientific article. The candidate will be asked to describe the content and methodology of the research project submitted, as well as the reason why he/she is willing to undertake a doctoral course. The interview will take into consideration the candidate's disciplinary orientation, in particular for what concerns the research methodology in the field of behavioural, biomedical and instrumental sciences. Candidates who are interested in the "Data Science in Biomedicine" program will be interviewed also on general topics of epidemiology and biostatistics.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be

asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: phd-pnds.unipv.eu

The PhD course involves the following programs:

a. Psychology and Neuroscience;
b. Data Science in Biomedicine.

PhD COURSE IN
BIOMEDICAL SCIENCES

LOCATION: DEPARTMENT OF BRAIN AND BEHAVIORAL SCIENCES

COORDINATOR: Prof. ANTONIO PISANI

RESEARCH TOPICS:

BIOCHEMISTRY TRACK:

Biochemical and immunological characterization of bacterial proteins, their role in infective process and possible vaccinal use; molecular bases of diseases associated to aging and amyloidosis

Analysis of connective matrix in normal and pathological conditions; proteins of biomedical interest: functional and structural studies; biochemical mechanisms of platelet function

Biochemistry of human erythrocyte; biochemical mechanisms of platelet production; pathogenic mechanisms of diseases related to protein-misfolding: disease biochemical markers.

PHARMACOLOGY TRACK:

Receptor pathology, metabolism and cell kinetic study; environmental toxicology; gastrointestinal pharmacology; clinical pharmacology of active drugs on the central nervous system

Antineoplastic drugs pharmacology; transplant pharmacology; pharmacoepidemiology and pharmacoeconomics of active drugs on the central nervous system, the cardiovascular system and gastrointestinal system

Pharmacology and molecular mechanisms associated to neurodegenerative diseases

Environmental effects on the immune system; pharmacology of the signaling transduction systems in the neurologic, oncologic and immune system diseases.

PHYSIOLOGY TRACK:

Molecular and cellular physiology of the nervous system; cellular communication and plasticity in the cerebral circuits; physiology and biophysics of sensory, motor and cognitive functions; mathematical model of cells, circuits and brain; cellular communication in the cardiovascular

system; physiology of the skeletal and cardiac muscles; physiology of the gastrointestinal system.

NEUROSCIENCE TRACK:

Neurobiology, neuroendocrinology and functional neurology; neuropathophysiology; neuroepidemiology and research methodology; child neuropsychiatry; pathophysiology, diagnosis and therapy of neurological diseases, including cephalalgia and adaptive disorders, movement disorders, neurodegenerative diseases, brain aging and dementia; advanced analysis of physiology and pathophysiology of the nervous system by high-field functional magnetic resonance imaging.

MEDICINE TRACK:

Disciplines within the medical sciences (cardiology, hematology, pediatrics, neurology/psychiatry); translational issues with focused approach to the study of the molecular and cellular basis of disease.

The PhD course in Biomedical Sciences is dedicated both to candidates graduated in scientific disciplines (for example Biology, Physics and Engineering) with an interest in basic and applied research to disease, and to candidates graduated in Medicine who choose the postgraduate doctoral training with the intent to acquire skills in the context of translational research. The mandatory training activity is intended to improve knowledge and skills required for understanding functional and pathological mechanisms using a multi-scale approach (molecular, cellular, systemic) and includes courses in mathematics, biophysics, computer science, physiology, biochemistry, pharmacology, pathology and therapy.

POSITIONS WITH SCHOLARSHIP	13	7 scholarships funded by the University of Pavia;
		1 scholarship funded by "Facing Global Challenges" project, to undertake research in "Neuroscience";
		1 scholarship funded by Department of Molecular Medicine, to undertake research in "Structure-based analysis of humoral response to S. aureus vaccine antigens";
		1 scholarship funded by Centro Cardiologico Monzino, to undertake research in "Discovery of novel therapeutic targets in the cardiometabolic disorders";
		1 scholarship funded by the Department of Internal Medicine to undertake research in "Study of the possible losers of outcomes and prognosis in a population of adolescents and young adults with mental status at risk for psychosis recruited as part of the ProNET (Psychosis-Risk Outcomes Network) project";
		1 scholarship funded by Fondazione Mondino, to undertake research in "Intellectual Development Disorders – Network to Empower Translational Research (IDD-NET)";

		1 scholarship funded by Fondazione Mondino, to undertake research in "Genetic modifiers in hereditary and acquired ATTR amyloidosis".
POSITIONS WITHOUT SCHOLARSHIP	3	
TOTAL POSITIONS	16	

ADDITIONAL POSITIONS RESERVED TO CANDIDATES HOLDING A SCHOLARSHIP FROM THE INTERNATIONAL MOBILITY PROGRAM H2020-MSCA-ITN-2020" CEN - Cerebellum and Emotional Networks": 3

Candidates applying for this position will be selected through qualifications assessment only. The Committee will draw up specific reports and a separate ranking list.

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH SCHOLARSHIP FROM A FOREIGN COUNTRY: 2

The "Additional positions reserved to candidates with a scholarship from a foreign country" are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for such positions. The Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview. Candidates are allowed to take the interview in English and/or via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. arithmetic mean of the scores obtained in the exams taken during the candidate's degree courses **(up to 4 points)**;

b. *curriculum vitae et studiorum* **(up to 2 points)**;

c. scientific publications **(up to 2 points)**;

d. research project in Italian or English (max 3000 words), related to the PhD research topics. The project must be structured according with the template available at the following link: http://drsbm.unipv.it/admission **(up to 2 points).**

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 6/10.

The results of the qualifications assessment will be published online no later than **September 10, 2021**. The results will be posted on the noticeboard of the Department of Brain and Behavioral Sciences and in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: September 22, 2021 at 9:00 (CET) - Department of Brain and Behavioral Sciences – Room of the former Institute of General Physiology – Via Forlanini n. 6 – Pavia.

The interview will assess the main topics covered by the PhD course and in particular the research project submitted by the candidate. The research project will not be binding if the candidate is admitted to the PhD program.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: http://drsbm.unipv.it/admission

PLEASE NOTE: Candidates who intend to apply for one of the scholarships to undertake research respectively in:

- "Neuroscience";
- "Structure-based analysis of humoral response to S. aureus vaccine antigens";
- "Discovery of novel therapeutic targets in the cardiometabolic disorders"

must express their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up specific ranking lists.

PhD COURSE IN
TRANSLATIONAL MEDICINE

LOCATION: DEPARTMENT OF MOLECULAR MEDICINE

COORDINATOR: Prof. ENZA MARIA VALENTE

RESEARCH TOPICS:

"Basic research": 1. Regulation of gene expression; 2. Structure/Function in proteins; 3. Protein homeostasis, folding and aggregation; 4. Membrane transport; 5. Mitochondrial function and dysfunction; 6. Intercellular communication; 7. Cell death; 8. Stem cells; 9. The cell biology of cancer; 10. The biology of ageing; 11. Mechanisms of immunity; 12. Gene editing and potential applications; 13. Intracellular clearance mechanisms; 14. Precision medicine.

"Clinical research": 1. Mendelian diseases; 2. Epigenetics in health and disease; 3. Cancer genetics; 4. Signalling in development and cancer; 5. Nanomedicine; 6. Applications of next generation sequencing; 7. Host-virus relationship and antiviral therapy; 8. Immune response to pathogens; 9. Brain ageing and neurodegeneration; 10. Cardiomyopathies and heart failure; 11. Atherosclerosis

and thrombosis; 12. Gastrointestinal inflammation and cancer. 13. Protein misfolding diseases; 14. Inflammation and inflammatory disorders.

POSITIONS WITH SCHOLARSHIP	10	6 scholarships funded by the University of Pavia
		2 scholarships funded by the Department of Molecular Medicine
		1 scholarship funded by "Facing Global Challenges" project, research topic "Personalised Medicine"
		1 scholarship funded by the Department of Molecular Medicine, ASAP-GP2 (Aligning Science Across Parkinson's-Global Parkinson's Genetics Program) project, research topic "Characterization of the genetic basis of Parkinson Disease".
POSITIONS WITHOUT SCHOLARSHIP	2	
TOTAL POSITIONS	12	

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview). Candidates will take the written test either in Italian or in English; the interview will be held in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

   a. arithmetic mean of the marks obtained in the exams taken during the candidate's degree courses **(up to 5 points);**
   b. *curriculum vitae et studiorum* **(up to 3 points);**
   c. a maximum of 2 reference letters issued and submitted directly by professors from the university where the degree was awarded or by other professors/researchers who have had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee **(up to 1 point);**
   d. scientific publications. Only publications from the last 5 years that are congruent with the research topics of the PhD course will be considered **(up to 1 point).**

Except for the reference letters, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

WRITTEN TEST: August 31, 2021, at 9:00 (CET), Aula "Mosca" of the Department of Molecular Medicine – Biology and Genetics section – Via Forlanini n. 14/16, Pavia.

In the written test, to be held in Italian or English language, candidates will have to address one of the topics of the PhD course, either related to basic research or clinical research areas.

The results of the written test will be published by **September 1, 2021 at 16.00 (CET)** on the website of the Department of Molecular Medicine.

INTERVIEW: September 2, 2021, at 9:30 (CET), Aula "Mosca" of the Department of Molecular Medicine – Biology and Genetics section – Via Forlanini n. 14/16, Pavia.

Candidates are allowed to take the interview via videoconference. The videoconference must be requested by selecting the appropriate option in the online application procedure (see art. 5 of this Call for applications).

The interview will be held in English. It will verify and assess the candidate's knowledge of the English language. At the choice of the candidate, the interview will concern some research topics either related to basic research or clinical research areas; it will also focus on the candidate's education and on the research projects of his/her interest, with the purpose of verifying his/her aptitude towards research.

Candidates who requested to take the interview via videoconference will be informed by the Committee about the date and time of the interview. Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFO: http://molecularmedicine.unipv.it/phd-programme/

PLEASE NOTE: Candidates who are interested in applying for the scholarship to perform research in "Characterization of the genetic basis of Parkinson Disease" must explicitly state their exclusive interest for this topic to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up a specific ranking list.

Candidates who are interested in applying for the scholarship to perform research in "Personalised Medicine" must explicitly state their interest for this topic to the examining committee before the interview. These candidates' interviews will therefore also include a discussion of the project topics. Successful candidates will be included in the general ranking and attributed a specific qualification for the above scholarship. The scholarship will be assigned to the first qualified candidate. Candidates who will renounce the scholarship will be excluded from the ranking.

MACRO-AREA OF HUMANISTIC AND SOCIAL SCIENCES

PhD COURSE

IN APPLIED ECONOMICS AND MANAGEMENT (AEM)

LOCATION: DEPARTMENT OF ECONOMICS AND MANAGEMENT;

COORDINATOR: Prof. ALBERTO A. GAGGERO;

COOPERATING INSTITUTION: University of Bergamo. The PhD degree will be jointly issued by the Rector of the University of Pavia and the Rector of the University of Bergamo.

RESEARCH TOPICS: applied economics, management.

POSITIONS WITH SCHOLARSHIP	5	2 scholarships funded by the University of Pavia
		3 scholarships funded by the University of Bergamo
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	6	

ADDITIONAL POSITIONS WITH SCHOLARSHIP RESERVED TO CANDIDATES WHO GRADUATED ABROAD: 2

Candidates applying for such positions must hold a second-level degree obtained from a foreign university. The examining committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference. Candidates are allowed to take the interview in English.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 15 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. research project written in Italian or in English (max 2000 words) indicating the research topic chosen by the candidate. The project's structure should be as follows: general introduction about the state of the art relative to the chosen topic; presentation of the research objectives; description of the methods (procedure, data analysis); discussion of the expected results; evaluation of the theoretical and/or practical implications **(up to 3 points);**

b. exam transcript of the master's degree **(up to 8 points);**
c. reference letter (no more than one), sent directly by the referee (e.g. a professor from the university where the degree was awarded or by another professor/researcher who has had direct contact with the applicant). During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee **(up to 2 points);**
d. scientific publications and preprints. The candidate may also send an abstract and indicate the DOI (Digital Object Identifier) or provide a link to a web repository. Only publications from the last 2 years that fit with the research topics of the PhD course will be considered **(up to 2 points).**

Except for the reference letter, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview 11/15.

The results of the assessment will be published online no later than **July 14, 2021**. The results will be posted on the Department of Economics and Management noticeboard and in the Personal Area of the candidate in the University website (https://studentionline.unipv.it/esse3/Home.do?cod_lingua=eng). This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: July 20, 2021, starting from 10:00 am (CET), via videoconference.

The research project will be discussed during the interview and is meant to verify the candidate's aptitude towards research. The research project will not be binding if the candidate is admitted to the PhD program. The interview may also deal with the contents of the PhD program.

Before starting the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: https://sites.google.com/unipv.it/phd-aem/home-page

PhD COURSE
IN PRIVATE LAW, ROMAN LAW AND EUROPEAN LEGAL CULTURE

LOCATION: DEPARTMENT OF LAW

COORDINATOR: Prof. VALERIO MAROTTA

RESEARCH TOPICS: Civil Law; Labour Law and Employment Relations; Intellectual Property and Unfair Competition; Roman Law; European Legal Culture.

POSITIONS WITH SCHOLARSHIP	5	4 scholarships funded by the University of Pavia 1 scholarship funded by "Facing Global Challenges" project, research topic "Legal framework of complex equity firms, sustainability, interests"
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	6	

ADDITIONAL POSITION RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1

These positions are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for these positions. Students will be selected through qualifications assessment and interview in person or via videoconference. The Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview). Candidates are allowed to take the tests in English or French. At the choice of the candidate, the written test will focus on one of the following topics: Civil Law; Labour Law and Employment Relations; Intellectual Property and Unfair Competition; Roman Law; Legal History.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English, German, French or Spanish will be assessed during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. arithmetic mean of the marks obtained in the exams taken during the candidate's
b. degree courses **(up to 5 points)**;
c. scientific publications, excluding the master's degree thesis **(up to 2 points)**;
d. other relevant qualifications **(up to 3 points).**

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

WRITTEN TEST: September 15, 2021 at 10:00 (CET), Department of Law – C.so Strada Nuova n. 65, Pavia.

For the topics concerning the program in "Private Law, Labor Law and Intellectual Property", during the written test candidates will be allowed to consult codes without comments by scholars and without case law.

INTERVIEW: September 16, 2021 at 11:00 am (CET), Department of Law – C.so Strada Nuova n. 65, Pavia.

PLEASE NOTE: Candidates who are interested in applying for the scholarship funded by "Facing Global Challenges" project, research topic "Legal framework of complex equity firms, sustainability, interests", <u>must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up a specific ranking list.</u>

INFORMATION: http://phddpdecge.unipv.eu/site/home.html

The PhD course involves the following programs:

- a. Private Law, Labour Law and Intellectual Property;
- b. Roman Law and European Legal Culture.

PhD COURSE
IN PUBLIC LAW, CRIMINAL AND INTERNATIONAL JUSTICE

LOCATION: DEPARTMENT OF LAW

COORDINATOR: Prof. SERGIO SEMINARA

RESEARCH TOPICS: general theory, structure and dynamics of Italian and comparative public law; relationships between legal systems (international, European and national systems); administrative law; fundamental rights; constitutional law; citizenship and immigration law; environmental law; domestic and international criminal law; criminology; criminal procedure and enforcement; public and private international law; international organization; institutions of the European Union; judicial cooperation.

POSITIONS WITH SCHOLARSHIP	4	4 scholarships funded by the University of Pavia
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	5	

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 2

These positions are reserved to candidates holding, at the time of the enrollment onto the PhD course, a scholarship of the same duration of a PhD course. The University of Pavia does not provide PhD scholarships for these positions. Students will be selected through qualifications assessment and interview in person or via videoconference. The Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview).

LINGUISTIC KNOWLEDGE: candidates' knowledge of English, German, French or Spanish will be verified during the interview. Foreign candidates will also have to demonstrate adequate knowledge of Italian.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

    a. arithmetic mean of the marks obtained in the exams taken during the candidate's degree courses **(up to 6 points)**;
    b. scientific publications **(up to 4 points)**.

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

WRITTEN TEST: September 15, 2021 at 9:30 am (CET), at the Department of Law – Aula I – C.so Strada Nuova n. 65, Pavia.

During the written test candidates will be allowed to consult codes without comments by scholars and without case law.

INTERVIEW: September 17, 2021 at 9:30 am (CET), at the Department of Law – Aula III – C.so Strada Nuova n. 65, Pavia.

INFORMATION: http://dottorati.unipv.eu/on-dip/phddpgpi/Home.html

The PhD course involves the following programs:

    a. Public law;
    b. Criminal and international justice.

PHD COURSE IN
ECONOMICS

LOCATION: DEPARTMENT OF ECONOMICS AND MANAGEMENT

COORDINATOR: Prof. EDUARDO ROSSI

COOPERATING INSTITUTION: University of Milano. The PhD degree will be jointly issued by the Rector of the University of Pavia and the Rector of the University of Milano.

RESEARCH TOPICS:

Carried out at the University of Pavia:

1. Applied Industrial Organization; Regulation and Competition in the Pharmaceutical Market;
2. Culture and Economics;
3. Gender Economics; Educational Choices; International Trade;
4. DSGE Models with Endogenous Firms Dynamics;
5. DSGE Models with Labor Market Imperfections; Monetary and Fiscal Policy;
6. Inflation Dynamics; Macro and Financial Stability;
7. Time series econometrics;

8. Financial Econometrics;
9. Empirical Finance;
10. Political Economy;
11. Structure, Scope and Performance of Government;
12. Global Value Chains;
13. Technological Catch Up;
14. Development economics.

Carried out at the University of Milano:

1. Risk and Time Preferences;
2. Experimental Economics;
3. Behavioral Economics and Policy;
4. Information and Market Power;
5. Competition in Quality and Regulation;
6. Industrial Organization of the Health Sector;
7. Health Economics;
8. Research and Teaching Evaluation;
9. Evaluation of Labor Market Reforms;
10. Effects of Occupational Licensing; Inequality and Social Mobility;
11. Inequality and Polarization of the Labor Market;
12. Taxation and Redistributive Policies; Tax Evasion;
13. Empirical Analysis of Taxation;
14. Cost-Benefit Analysis of Projects and Policies;
15. Public Enterprises and Privatization;
16. Income Inequality and Poverty;
17. Economics of Multinational Firms;
18. Firms' Dynamics and Growth; Economics of Migration;
19. Applied Energy Economics;
20. Environment and Economic Growth;
21. Economic Assessment of Climate Change Impacts;
22. Climate Change, Migration and Agriculture;
23. Agricultural and Food Policies; Macroeconometric Modelling.

For more information on the research topics, see http://www.phdeconomics.unimi.it/.

POSITIONS WITH SCHOLARSHIP	**8**	4 scholarships funded by the University of Pavia
		3 scholarships funded by the University of Milano
		1 scholarship funded by the Department of Excellence of Economics, Management and Quantitative Methods of the University of Milano, to undertake research in "The use of empirical methods, with an emphasis on computational and machine learning techniques, to study the socio-economic impact of social and technological transformations"

POSITIONS WITHOUR SCHOLARSHIP	0	
TOTAL POSITIONS	8	

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference.
Candidates will be interviewed in English.

QUALIFICATIONS ASSESSMENT: UP TO 15 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

1. research project written in English (max 2000 words) indicating the research topic chosen by the candidate among those listed above. The project's structure should be as follows: general introduction about the state of the art relative to the chosen topic; presentation of the research objectives; description of the methods (procedure, data analysis); discussion of the expected results; evaluation of the theoretical and/or practical implications **(up to 4 points)**;
2. exams taken during the candidate's Master course, bearing the marks **(up to 5 points)**;
3. reference letter (no more than one), issued and submitted directly by a professor from the university where the degree was awarded or by another professor/researcher who has had direct contact with the applicant. During the online application, the candidate will enter the contact data of the chosen referee who, through a specific online procedure, will have to upload the reference letter directly in the University portal by the deadline of the call. Unlike the other documents, the letter must not be uploaded by the candidate during the online application procedure. Letters uploaded by the candidate him/herself will not be evaluated by the committee **(up to 2 points)**;
4. abstract of the Master thesis (max 1000 words), publications and preprints. Concerning publications and preprints, candidates may also send an abstract and indicate a DOI (Digital Object Identifier), or else provide a link to a web repository. Only publications from the last 5 years that are congruent with the research topics of the PhD course will be considered **(up to 2 points)**;
5. *curriculum vitae* **(up to 2 points)**.

Except for the reference letter, the qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 10/15.

The results of the qualifications assessment will be published online no later than **July 14, 2021**. The results will be posted in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: July 20, 2021, starting from 10:00 am (CET). **Candidates will be interviewed in English via videoconferencing.**

The interview will verify and assess the candidate's knowledge of the English language. The research project will be discussed during the interview and is meant to verify the candidate's

aptitude towards research. The interview will deal with the research project, as well as with the contents of the PhD course.

Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: http://www.phdeconomics.unimi.it

PLEASE NOTE: Candidates who are interested in applying for the scholarship funded by the Department of Excellence of Economics, Management and Quantitative Methods of the University of Milano, to undertake research in "The use of empirical methods, with an emphasis on computational and machine learning techniques, to study the socio-economic impact of social and technological transformations", must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up a specific ranking list.

AMOUNT OF THE SCHOLARSHIPS AND PhD STUDENTS MEMBERSHIP TO A DEPARTMENT

Each scholarship funded by the University of Pavia has a gross annual amount of € 15,343.28.

Each scholarship funded by the University of Milano has a gross annual amount of € 16,350.00.

The scholarships funded by the University of Pavia will be awarded to PhD students with a membership to the Department of Economics and Management of the University of Pavia.

The scholarships funded by the University of Milano will be awarded to PhD students with a membership to the Department of Economics, Management and Quantitative Methods of the University of Milano.

DETERMINATION OF THE MEMBERSHIP TO A DEPARTMENT

Once the ranking list of the selected candidates has been determined, the PhD Academic Board will attribute to each of them the membership to one of the two departments, on the basis of the research topic chosen by the candidate among those listed above and indicated in the research project submitted during the application procedure, using the ranking order as a priority criterion of preference satisfaction, until the scholarships of one of the two Universities have all been attributed. Then, the remaining winners will be assigned to the other department, irrespective of their indicated preference.

PhD COURSE
IN SCIENCES OF THE LITERARY AND MUSICAL TEXT

LOCATION: DEPARTMENT OF HUMANITIES

COORDINATOR: Prof. GIUSEPPE ANTONELLI

RESEARCH TOPICS: Textual Criticism from the Middle Ages to the Present; Critical Editions of Texts and Literary Criticism from the Middle Ages to the 21st Century; History of Italian Language; History of Theatre and Cinema; Modern Foreign Languages and Literatures; Musicology.

POSITIONS WITH SCHOLARSHIP	4	4 scholarships funded by the University of Pavia
POSITIONS WITHOUT SCHOLARSHIP	1	
TOTAL POSITIONS	5	

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview). The tests will take place in person, if the conditions allow it. If not, the tests will take place remotely, in accordance with the protocol provided by the University of Pavia.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English, French, German, Spanish or Russian will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. summary of the second-level degree thesis in Italian or English (max. 1000 words) **(up to 2 points)**;

b. marks obtained in the exams taken during the candidate's degree courses **(up to 2 points)**;

c. research project, either in Italian or in English (max. 3000 words, bibliography not counted), related to research topics pertaining to the programs listed below. The project's structure should be as follows: general introduction about the state of the art relative to the chosen topic; presentation of the research objectives; description of the methods and the sources the candidate intends to use; discussion of expected results **(up to 6 points)**.

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

WRITTEN TEST: September 21, 2021, at 9:00 (CET). More information on the test, as well as the location, will be communicated to candidates by the Committee via email.

The written test will consist of:

1. for the Modern Philology program: discussion of philological-critical issues referred to crucial texts of Italian literature or linguistic-stylistic analysis and historical-literary commentary of a chosen text;

2. for the Modern Foreign Languages and Literatures program: discussion in the chosen language of either philological-literary or linguistic issues pertaining to authors, texts, textual genres, specific periods of the language and culture, or historical/literary/stylistic/linguistic analysis with commentary on a text;

3. for the Musicology program: historical, analytical and stylistic discussion of at least two musical pieces chosen among those from different periods and repertoires proposed by the Committee, including those relevant to ethnomusicology, popular contemporary music and media studies.

The list of candidates admitted to the interview will be published according to a procedure that

will be communicated the day of the written test.

INTERVIEW: September 27, 2021, at 9:00 (CET)

The interview will be in either Italian or the foreign language chosen by the candidate among those listed above and will concern:

1. a thorough discussion of the research project;

2. the assessment of the candidate's competence related to the chosen program;

3. the assessment of the knowledge of one of the following languages: English, French, German, Spanish, Russian.

INFORMATION: http://phdfm.unipv.eu/site/en/home.html

The PhD course involves the following programs:

Modern Philology

Research areas:

1. Genetic criticism and textual tradition; critical editions of texts from the origins to the 20th century;
2. History of literary criticism;
3. Theory of literature;
4. Renaissance and Modern literature and culture;
5. Italian linguistics;
6. Edition and comment of early Romance texts;
7. Drama and performance. Film language: analysis and criticism;
8. Metrical theory and analysis;
9. Reception of Greek and Latin texts in modern literatures.

Modern Foreign Languages and Literatures

Research areas:

The program covers 6 areas, interacting also on a comparative basis: English studies; Germanic philology; French studies; German studies; Spanish studies; Slavonic studies. Within these linguistic areas, the following fields are foregrounded:

1. Critical edition and analysis of Medieval Germanic texts;
2. Ancient book studies;
3. Criticism of the European novel;
4. Textual analysis and criticism (theory and practice);
5. Literary translation;
6. Language studies;
7. History of theatre and drama (script and performance).

Musicology

Research areas:

1. Critical edition of musics from the Middle Ages to the 21st century;

2. Music theories and analysis from the Middle Ages to the 21st century;
3. Musical theatre from the 17th to the 21st century;
4. Music and literature;
5. Music and media;
6. Organology and music iconography;
7. Ethnomusicology;
8. Popular music.

PHD COURSE IN
HISTORY

LOCATION: DEPARTMENT OF POLITICAL AND SOCIAL SCIENCES

COORDINATOR: Prof. PIERLUIGI VALSECCHI

RESEARCH TOPICS: Pre-classical ancient Near East; Ancient history and historiography; Greek, Etruscan-Italic and Roman archaeology, topography and art; History and civilization of Greek and Latin Middle Age; Modern and Contemporary History; Constitutional and Administrative History; History and Politics of European Integration; History of Asia and Africa.

For further information on the research topics please visit the PhD course website: http://phdstoria.unipv.eu/site/en/home.html

POSITIONS WITH SCHOLARSHIP	6	5 scholarships funded by the University of Pavia 1 scholarship funded by the "Facing Global Challenges" project, research topic "Archaeology, and archaeogenomics: the keys to understanding our past"
POSITIONS WITHOUT SCHOLARSHIP	0	
TOTAL POSITIONS	6	

PhD students will be required to spend a research period abroad of at least 12 months over the three years.

ADDITIONAL POSITIONS RESERVED TO CANDIDATES WITH A SCHOLARSHIP FROM A FOREIGN COUNTRY: 1

These positions are reserved to candidates holding, at the time of the enrolment onto the PhD course, a scholarship of the same duration as a PhD course. The University of Pavia does not provide PhD scholarships for such positions. The Committee will draw up specific reports and a separate ranking list.

ADDITIONAL POSITIONS WITH SCHOLARSHIP RESERVED TO CANDIDATES WHO GRADUATED ABROAD: 1

Such positions are reserved to candidates holding a second-level degree obtained abroad. The Committee will draw up specific reports and a separate ranking list.

ADMISSION PROCEDURE: qualifications assessment and interview via videoconference. Candidates are allowed to take the interview in English.

LINGUISTIC KNOWLEDGE: the candidates' knowledge of English will be verified during the interview.

QUALIFICATIONS ASSESSMENT: UP TO 10 POINTS ARE ASSIGNED UPON ASSESSMENT OF EACH CANDIDATE'S QUALIFICATIONS, AS FOLLOWS:

a. exams taken during the candidate's degree courses, including the marks **(up to 2 points)**. Candidates are required to provide with self-certification the arithmetic means and the statistical distribution of the exam marks: in the absence of these documents the qualification will not be taken into consideration;

b. post lauream diplomas (specialization schools, Italian Master courses); participation in archaeological excavation campaigns in a supervisory position; collaborations with libraries/museums/archives, with medium-high responsibilities; proven training period abroad; possible additional work or research activities at qualified institutions (subject to the approval of the committee). All the above-mentioned activities must be confirmed by uploading of the relevant dated certificates issued by the management **(up to 1 point);**

c. publications (only if already published or accepted for publication; a pdf file, as well as full information pertaining to the publisher, must be provided); conference reports already accepted for publication (a certificate issued by the editor or the conference organizer must be provided). In order to be considered, publications and conference reports must be less than 5 years old and must be congruent with the research topics of the PhD course **(up to 2 points);**

d. research project in Italian or English (max 16000 characters, including spaces; bibliography, sources and figures not counted), related to one of the above-mentioned PhD research fields. The research project is to be structured as follows: short literature review; presentation of the research project and its goals; discussion of the expected outcomes (this must specify the project's likely contribution to the disciplinary field/s concerned); provisional research plan and timeframe **(up to 5 points)**.

Candidates must enclose their *curriculum vitae* to the application together with the above-listed qualifications.

The qualifications must be submitted according to the procedure indicated in art. 5, para. 2 of this call for applications.

The minimum score to be admitted to the interview is 6/10.

The results of the qualifications assessment will be announced no later than **July 16, 2021**. The results will be posted in the Personal Area of the candidate in the University website. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: July 21, 2021, starting from 10:00 am (CET), via videoconference.

The interview will be held in Italian or English and will verify the candidate's knowledge of the English language. The interview will focus on the research project in order to ascertain the candidate's aptitude towards research and his/her expertise and background in the research project's field of studies. The research project will not be binding if the candidate is admitted onto the PhD course.

Before the interview, candidates will be asked to show a valid identity document. The University of Pavia does not take any responsibility for a candidate's failure to attend the interview due to technical difficulties.

PLEASE NOTE: Candidates who are interested in applying for the scholarship funded by "Facing Global Challenges" project, research topic "Archaeology, and archaeogenomics: the keys to understanding our past" must state their interest to the examining committee before the interview; these candidates' interviews will therefore also include a discussion of the project topics. The examining committee will draw up a specific ranking list.

INFORMATION: http://phdstoria.unipv.eu/site/home.html