

ANNEX 1

PhD COURSE

IN BIOENGINEERING, BIOINFORMATICS AND HEALTH TECHNOLOGIES

LOCATION: Department of Electrical, Computer and Biomedical Engineering

COORDINATOR: Prof. Riccardo Bellazzi

RESEARCH TOPICS: bioinformatics, biomedical informatics (including artificial intelligence techniques applied to biomedical data), modeling of biological systems, biomedical technology (including advanced methods of signal and image analysis in multimodal contexts), computational biomechanics (including fluidodynamics), biological tissue engineering, biomaterials, synthetic biology.

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).

Candidates who wish to compete for topic-related scholarships must state their interest before the beginning of the interview.

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.

The minimum score to be admitted to the interview is 8/15.

The results of the qualifications assessment will be published online no later than **February 14**, **2025**. 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: February 20, 2025 at 9:30 (CET), "Aula Seminari verde" of the Department of



Electrical, Computer and Biomedical Engineering - 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/site/en/home.html

The PhD course involves the following programs:

- 1. Biomedical informatics
- 2. Diagnostic, therapeutic and rehabilitative bioengineering
- 3. Cell and tissue Bioengineering

PhD COURSE

IN DESIGN, MODELING, AND SIMULATION IN ENGINEERING

LOCATION: Department of Civil Engineering and Architecture

COORDINATOR: Prof. Ferdinando Auricchio

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

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 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 7/10.

The results of the qualifications assessment will be published online no later than **February 11**, **2025**. 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: February 19, 2025, 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 and to state for which scholarships they wish to apply. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

INFORMATION: <u>http://phd.unipv.it/phd-program-in-design-modeling-and-simulation-in-engineering/</u>

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.

PhD COURSE IN ELECTRONICS, COMPUTER SCIENCE AND ELECTRICAL ENGINEERING (industrial PhD program)

LOCATION: Department of Electrical, Computer and Biomedical Engineering

COORDINATOR: Prof. Ilaria Cristiani

COOPERATING INSTITUTIONS: A2A SpA, ABB Switzerland Ltd, Bright Solutions Srl and Tecnimont SpA

RESEARCH TOPICS: Photonics and Microwave Technologies, Telecommunications, Computer Engineering (cyber-physical systems, artificial intelligence and artificial vision), Automation, Electrical Engineering, Mechatronics and Robotics.

Eight programs are provided, including an international program in cooperation with the Lodz University of Technology, Polonia.

ADMISSION PROCEDURE: qualifications assessment and interview. 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, the scientific reputation of the person signing the letter and the number of letters submitted. 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 **February 11**, **2025**. 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: February 18, 2025, at 9:30 (CET), via videoconference.

Candidates will be informed by the Committee about the date and time of the interview, which will be held via videoconference only. 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.

Up to 30 points are assigned upon assessment of the interview.

INFORMATION: https://phdieie.unipv.it/

The PhD course involves the following programs:

- 1) Photonics
- 2) Microwave Technologies
- 3) Telecommunications
- 4) Cyber Physical Systems
- 5) Artificial Intelligence and Computer Vision (comprende la tematica Financial Technologies, FinTech);
- 6) Automation
- 7) Electrical Engineering (in collaborazione con Lodz University of Technology, Polonia)
- 8) Mechatronics and Robotics.

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; synthesis of biologically active compounds via pericyclic reactions; 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; Photochemistry, C-H activation; Development of new generation perovskite based solar cells/Fabrication and characterization of perovskite based solar cells/Physico chemical characterization of nanostructured materials; Analytical Chemistry applied to forensic sciences; Electroanalytical chemistry; Adsorbents, Solid Catalysts; Optical sensors for analytical applications.

Pharmaceutical sciences: Identification of novel neuroprotective and anticancer drugs; macromolecule immobilization; Identification of new neuroprotective and antitumor agents; Immobilization of macromolecules; Nutraceuticals from agri-food waste: isolation, characterization, bioactivity and bioaccessibility studies; Study of Molecularly Imprinted Polymers-biological target interactions; Development of innovative supports for analytical applications in the pharmaceutical field; LC-MS for the characterization of proteins of pharmaceutical interest; Drug discovery from plants; New site-specific therapeutic systems, development of scaffolds for tissue repair (cutaneous, tendon-osteoarticular, central and peripheral nervous system and tubular organs); Development of nanoparticulate protein systems for the active delivery of drugs and for anticancer immunotherapy; Development of medicines based on mesenchymal stem cell derivatives for regenerative medicine and drug delivery; Development of medicinal products for advanced therapies, somatic cell therapy and tissue engineering.

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

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:

- arithmetic average of the marks obtained in the exams taken during the candidate's degree courses, to be calculated and declared by the candidates themselves; 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 **February 10**, **2025**. 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: February 17, 2025, at 9:00 (CET), at the Department of Chemistry – 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.

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. Andrea Mondoni

RESEARCH TOPICS:

Permanently Shadowed Regions of the Moon: Remote Measurements and Physical Models in Support of Human Exploration

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 in conferences).

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 announced no later than **February 13, 2025**. 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: February 18, 2025, starting at 9:00 (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 of a short presentation of the research project (max 15 minutes; the use of technological 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 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.

INFO: <u>http://phd-dsta.unipv.it/</u>

PhD COURSE IN GENETICS, MOLECULAR AND CELLULAR BIOLOGY

LOCATION: DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"

COORDINATOR: Prof. DAVIDE SASSERA

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

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 <u>http://studentionline.unipv.it/esse3/Home.do</u>.

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, to be calculated and declared by the candidates themselves: **up to 4 points**.
- d. research project (max. 5000 characters, including spaces), in Italian or English. This will not be binding if the candidate is admitted onto the PhD course: **up to 4 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 **February 11th**, **2025**. 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: February 18, 2023, at 10.30 (CET), at Aula "Arturo Falaschi" Istituto di Genetica Molecolare "Luigi Luca Cavalli Sforza" CNR - Via Ferrata, n. 1, Pavia.

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.

NOTE: Candidates wishing to compete for one of the scholarships to undertake research in specific topics must express their interest in this theme before the start of the interview. These candidates' interviews will therefore also include a discussion of the project topics. Candidates will be included in the main ranking list, with the attribution of a possible eligibility for the topic-related scholarships. Such scholarships will be attributed to the first eligible candidate in the ranking list. If the candidate renounces the scholarship, he/she will be excluded from the ranking.

INFORMATION: <u>http://dottorati.unipv.eu/on-dip/phdsgb/Home.html</u> homepage of the website "Admission to PhD".



IN EXPERIMENTAL MEDICINE (Industrial PhD program)

LOCATION: Department of Internal Medicine and Medical Therapeutics

COORDINATOR: Prof. Stefano Perlini

COOPERATING INSTITUTIONS: Fondazione San Matteo IRCCS

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

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 the English language 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.

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

The results of the qualifications assessment will be announced no later than **February 11, 2025**. 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: February 13, 2025, at 15:00 (CET), at Aula 11.1 Campus della Salute – Fondazione I.R.C.C.S. Policlinico San Matteo – Viale Golgi n. 19 - Pavia.

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://phdms.unipv.eu

The PhD course involves the following programs:

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

PhD COURSE IN



BIOMEDICAL SCIENCES

LOCATION: Department of Brain and Behavioral Sciences

COORDINATOR: Prof. Antonio Pisani

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.

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, to be calculated and declared by the candidates themselves (**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 to the template available at the following link: <u>http://phdbms.unipv.it/admission/</u> (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 **February 11**, **2025**. 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: February 19, 2025 at 9:00 (CET) at "Aula didattica" of Fondazione Mondino, Via Mondino 2, Pavia.

The interview will be focused on 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://phdbms.unipv.it/admission/

PhD COURSE IN TRANSLATIONAL AND PRECISION MEDICINE

LOCATION: Department of Molecular Medicine

COORDINATOR: Prof. Roberto Bottinelli

RESEARCH TOPICS:

"Basic research": 1. Gene editing and potential applications; 2. Stem cells and tissue homeostasis; 3. The cell biology of cancer; 4. Protein structure, function and homeostasis; 5. Mechanisms and regulation of immunity; 6. Intercellular communication and cell signaling;

"Clinical research": 1. Cancer genetics; 2. Gastrointestinal inflammation and cancer; 3. Infections and immune response to pathogens; 4. Mendelian diseases; 5. Atherosclerosis and thrombosis; 6. Blood cancers

ADMISSION PROCEDURE: qualifications assessment and tests (written test and interview). Both tests will be held in English for all candidates.

LINGUISTIC KNOWLEDGE: candidates' knowledge of English will be verified during the written test and 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, to be calculated and declared by the candidates themselves **(up to 5 points)**;
- b. curriculum vitae et studiorum (up to 2 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 2 points);
- 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: February 10, 2025, at 9:00 (CET), "Aula A di Fisiologia" of the Department of Molecular Medicine – Via Forlanini n. 6, Pavia.

The written test consists of the writing of an abstract in English, based on a scientific article on the research topics of the PhD course. Before the beginning of the test the committee will draw, from a list of previously selected articles, a clinical article and a basic research article, among



which candidates can make their choice. The written test is aimed at assessing the analytical, deductive and synthesis skills of the candidate.

The results of the written test will be published by **February 12, 2025 at 13.00 (CET)** on the website of the Department of Molecular Medicine or communicated to the candidates via email.

INTERVIEW: February 14, 2025, at 9:00 (CET), "Biblioteca di Fisiologia", Department of Molecular Medicine – Via Forlanini n. 6, Pavia.

The interview will concern a research topic drawn by each candidate, either related to basic research or clinical research areas, at the choice of the candidate. It will also focus on the candidates' education and on the research projects of their interest, with the purpose of verifying their 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: <u>https://medicinamolecolare.dip.unipv.it/it/didattica/post-laurea/dottorato-medicina-traslazionale-e-di-precisione</u>

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

LOCATION: Department of Law

COORDINATOR: Prof. Umberto Stefini

RESEARCH TOPICS: Civil Law;.

ADMISSION PROCEDURE: qualifications assessment, research project and tests (written test and interview). Candidates will be allowed to take the tests in English. The written test will focus on the topic of Civil Law. During the interview, candidates will discuss the research project submitted along with the application.

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

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

- a. 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 4 points)**;
- b. scientific publications, excluding the master's degree thesis (up to 2 points);
- c. other relevant qualifications (up to 1 point);
- d. research project written in Italian, English, French or Spanish language (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; discussion of the expected results; evaluation of the theoretical and/or practical implications (**up to 3 points**).

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

WRITTEN TEST: February 11, 2025 at 10:00 (CET), "Aula VI", Department of Law – C.so Strada Nuova n. 65, Pavia. Candidates will be allowed to consult codes without comments by scholars and without case law.

INTERVIEW: February 13, 2025 at 9:30 am (CET), "Aula III", Department of Law – C.so Strada Nuova n. 65, Pavia.

INFORMATION: <u>https://giurisprudenza.dip.unipv.it/en/education/post-graduate-programs/dottorati-di-ricerca/doctorate-private-law-roman-law-and-european</u>

The PhD course involves the following programs:

- a. Private Law
- b. Roman Law and European Legal Culture

The two positions available for Civil law will be included in the program in Private law.

PhD COURSE IN SCIENCES OF THE LITERARY AND MUSICAL TEXT

LOCATION: Department of Humanities

COORDINATOR: Prof. Mirko Volpi

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.

ADMISSION PROCEDURE: qualifications assessment and interview.

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 1 point**);
- b. exams taken during the candidate's degree courses, if relevant for the research areas of the PhD course **(up to 1 point)**;
- 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 8 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 **February 10**, **2025**. 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: February 26, 2025, at 11:00 (CET), via videoconference.

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: <u>https://studiumanistici.dip.unipv.it/it/didattica/dottorati/dottorato-scienze-del-testo-letterario-e-musicale</u>

The PhD course involves the following programs:

MODERN PHILOLOGY

Research areas:

- 1. Genetic criticism and textual tradition; critical editions and commentaries of texts from the origins to the 21st century
- 2. History of literary criticism
- 3. Theory of literature
- 4. Renaissance and Modern literature and culture
- 5. Italian linguistics
- 6. Editions and commentaries of novel texts of the first centuries
- 7. Dramaturgy, scenic and performative writing. Philology and criticism of film language
- 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 (history of the English/French/German/Russian/Spanish language)
- 7. History of drama (script and performance).

MUSICOLOGY

Research areas:

- 1. Musical philology from the Middle Ages to the 21st century
- 2. Music theories and analysis from Antiquity to the 21st century
- 3. Musical theatre from the 17th to the 21st century
- 4. Music and literature
- 5. Music and the media
- 6. Organology and music iconography
- 7. Ethnomusicology
- 8. Contemporary popular music

PHD COURSE IN COMMUNICATION SCIENCES AND PRACTICES (Industrial PhD program)

LOCATION: Department of Political and Social Sciences

COORDINATOR: Prof. Flavio Antonio Ceravolo

COOPERATING COMPANIES: Spindox SpA e Fondazione Istituto Neurologico Nazionale C. Mondino – IRCCS

RESEARCH TOPICS: Digital communication, reputation management and public opinion, narrative models, quantitative and qualitative research for communication and marketing.

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

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

- a. graduation marks of both the bachelor and master's degree, or weighted and arithmetic average of the marks obtained during the degree courses: **up to 7 points**;
- b. internship, research or work experience consistent with the topics of the PhD course: **up to 2 point;**



c. any training courses, *"master"* courses or other educational qualifications consistent with the topics of the PhD course: **up to 1 point**.

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 **February 10, 2025**. 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: February 10, 2025, at 14:30 CET, at the Department of Political and Social Science, C.so Strada Nuova n. 65, Pavia.

The interview will focus on the topics of the PhD course as well as on the candidate's studies.

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: please refer to the Coordinator of the PhD program (<u>flavioantonio.ceravolo@unipv.it</u>) and the didactic office (<u>edoardo.depaoli@unipv.it</u>).

PhD COURSE OF NATIONAL INTEREST IN MICRO- AND NANO-ELECTRONICS

LOCATION: UNIVERSITY OF PAVIA

COOPERATING INSTITUTIONS:

- Free University of Bozen-Bolzano (degree jointly awarded by the University of Pavia and the Free University of Bozen-Bolzano);
- Polytechnic of Torino (degree jointly awarded by the University of Pavia and the Polytechnic of Torino);
- University of Cagliari (degree jointly awarded by the University of Pavia and the University of Cagliari);
- University of Genova (degree jointly awarded by the University of Pavia and the University of Genova);
- University of Milano-Bicocca (degree jointly awarded by the University of Pavia and the University of Milano-Bicocca);
- University of Modena and Reggio Emilia (degree jointly awarded by the University of Pavia and the University of Modena and Reggio Emilia);
- University of Napoli "Federico II" (degree jointly awarded by the University of Pavia and the University of Napoli "Federico II");
- University of Calabria (degree jointly awarded by the University of Pavia and the University of Calabria).



AFFILIATED COMPANIES (industrial PhD course): STMicroelectronics Srl.

COORDINATOR: Prof. Piero Malcovati

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 20 points are assigned upon assessment of each candidate's qualifications, as follows:

- 1. exams taken during the candidate's degree courses, bearing the marks: up to 12 points
- 2. scientific publications: up to 3 points
- 3. other qualifications considered as relevant: up to 5 points.

The qualifications must be submitted, along with a complete *curriculum vitae et studiorum*, 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 8/20.

The results of the qualifications assessment will be published online no later than February 14, 2025. 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: February 24, 2025. The interviews schedule will be published on the website https://phd-mne.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.

INFO: https://phd-mne.unipv.it/

PhD COURSE OF NATIONAL INTEREST

IN ONE HEALTH APPROACHES TO INFECTIOUS DISEASES AND LIFE SCIENCE RESEARCH

LOCATION: University of Pavia

COORDINATOR: Prof. Anna Odone

LOCATIONS AND INSTITUTIONS FOR THE 40^{th} CYCLE (ACADEMIC YEAR 2024/2025):

- Association of Experimental Institutes for Zooprophylaxis degree awarded by the University of Pavia;
- National Research Council (CNR) degree awarded by the University of Pavia;
- Humanitas University degree jointly awarded by the University of Pavia and Humanitas University;
- Institute "Sacro Cuore Don Calabria" degree awarded by the University of Pavia;



- Italian National Institute of Health degree awarded by the University of Pavia;
- Università degli Studi di Bari "Aldo Moro" degree jointly awarded by the University of Pavia and the University of Bari "Aldo Moro";
- University of Bologna degree jointly awarded by the University of Pavia and the University of Bologna;
- University of Cagliari degree jointly awarded by the University of Pavia and the University of Cagliari;
- University of Catania degree jointly awarded by the University of Pavia and the University of Catania;
- University of Milano degree jointly awarded by the University of Pavia and the University of Milano;
- University of Napoli "Federico II" degree jointly awarded by the University of Pavia and the University of Napoli "Federico II";
- University of Padova degree jointly awarded by the University of Pavia and the University of Padova;
- University of Roma "La Sapienza" degree jointly awarded by the University of Pavia and the University of Roma "La Sapienza";
- University of Siena degree jointly awarded by the University of Pavia and the University of Siena;
- University of Torino degree jointly awarded by the University of Pavia and the University of Torino;
- Università Vita-Salute San Raffaele degree jointly awarded by the University of Pavia and Università Vita-Salute San Raffaele.

RESEARCH TOPICS: The PhD course aims at training young researchers in the field of life sciences, with a *one health* perspective, focusing on the five specific research areas corresponding to the five Research Nodes of the INF-ACT projects:

- 1) Emerging and re-emerging viral threats,
- 2) Arthropod vectors and vector-borne pathogens,
- 3) Antimicrobial resistance (AMR),
- 4) Epidemiology, monitoring and modelling (EPI-MOD),
- 5) New therapeutic strategies.

In particular, the PhD course will foster a multidisciplinary approach to research questions, supported by the diverse expertise represented in the INF-ACT partnership: in methodological, biomedical, veterinary, biological, chemical, pharmaceutical, environmental, technical, and social components of public health. The program will train researchers capable of generating the necessary evidence to address emerging health challenges, with a particular focus on the prevention, control and treatment of infectious diseases. It aims at building a multidisciplinary "ecosystem" capable of implementing ambitious research projects in support of the INF-ACT project objectives and serving as a catalyst for scientific and technological progress in the country.

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



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

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

- a. Degree grade and/or, in the case of conditional application, arithmetic average of the marks obtained in the exams taken during the second-level degree: up to **5** points.
- b. *Curriculum vitae et studiorum.* The commission will evaluate, among other aspects, the coherence of the activities carried out with the topics of the PhD course: up to **10** points;
- c. Motivation letter in Italian or English language (max 500 words), in which candidates will explain their potential interest in one of the research areas and indicate their preferred research location. Such choices must be supported by scientific arguments: up to **3** points;
- d. A maximum of two reference letters, in Italian or English language, issued and submitted directly by qualified 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.

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 8/20.

The results of the qualifications assessment will be published online no later than February 10, 2025. 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: starting with February 17, 2025, via videoconference. The interviews schedule will be published at <u>http://phd.onehealth.unipv.it</u> on February 12, 2025.

The interview will focus on the topics of the PhD course. Prior to the interview, candidates will be requested to present a valid identification document. The University of Pavia does not assume the responsibility for any failure to complete the examination due to any technical issues that may arise.

INFO: http://phd.onehealth.unipv.it