



ANNEX 1

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 (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).

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 **March 18, 2024**. 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: March 22, 2024, at 9:30 (CET), "Aula Seminari verde" of the Department of Electrical, Computer and Biomedical Engineering - Floor D - Via Ferrata n. 5 – Pavia.



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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 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 **March 19, 2024**. 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: March 25, 2024, at 10:00 (CET), Aula MS1 of the Department of Civil Engineering and



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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.

**PhD COURSE
IN ELECTRONICS, COMPUTER SCIENCE
AND ELECTRICAL ENGINEERING**

LOCATION: DEPARTMENT OF ELECTRICAL, COMPUTER AND BIOMEDICAL ENGINEERING

COORDINATOR: Prof. ILARIA CRISTIANI

RESEARCH TOPICS: Photonics and Microwave Technologies, Space Communications Systems, Computer Engineering and Automation, Electrical Engineering, Mechatronics and Robotics

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.



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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 **March 12, 2024**. This can be accessed using the login information provided at the end of the registration procedure.

INTERVIEW: March 15, 2024, at 9:30 (CET), via videoconference.

The interview will be held only 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 document. The University of Pavia does not take any responsibility for a candidate's failure to take the interview due to technical difficulties.

For the evaluation of the interview, the committee will assign up to 30 points.

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

The PhD course involves the following programs:

- a. Photonic, Microwave and Telecommunications
- b. Computer Engineering and Automation – including the curriculum in Financial Technologies (FinTech);
- c. Industrial Engineering.

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

LOCATION: UNIVERSITY OF PAVIA

COOPERATING INSTITUTION:

- Free University of Bozen-Bolzano (degree jointly awarded by the University of Pavia and the Free University of Bozen-Bolzano);
- Polytechnic of Bari (degree jointly awarded by the University of Pavia and the Polytechnic of Bari);
- Polytechnic of Torino (degree jointly awarded by the University of Pavia and the Polytechnic of Torino);
- University of L'Aquila (degree jointly awarded by the University of Pavia and the University of L'Aquila);
- University of Bologna (degree jointly awarded by the University of Pavia and the University of Bologna);



UNIVERSITÀ DI PAVIA

Area Ricerca
e Terza Missione

- University of Brescia (degree jointly awarded by the University of Pavia and the University of Brescia);
- 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 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 Pisa (degree jointly awarded by the University of Pavia and the University of Pisa);
- University of Roma "La Sapienza" (degree jointly awarded by the University of Pavia and the University of Roma "La Sapienza");
- University of Roma 3 (degree jointly awarded by the University of Pavia and the University of Roma 3);
- University of Salento (degree jointly awarded by the University of Pavia and the University of Salento).

AFFILIATED COMPANIES (INDUSTRIAL PhD):

- 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 **10** points
2. scientific publications: up to **6** points
3. other qualifications considered as relevant: up to **4** 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 results of the qualifications assessment will be published online no later than **March 15, 2024**. 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 from **March 22, 2024**. The interviews schedule will be published on the website <https://phd-mne.unipv.it/>.



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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.

ASSEGNAZIONE DEI POSTI: i posti saranno assegnati secondo graduatoria di merito, tenendo conto, ove possibile, delle preferenze espresse dai candidati durante il colloquio.

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

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

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, 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 **March 11, 2024**. 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: March 25, 2024, 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 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 <http://studentionline.unipv.it/esse3/Home.do>.

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 **March 14th, 2024**. 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: March, 21st, 2024, at 14.30 (CET), at Aula C of the Department of Biology and Biotechnologies, Genetics buildings, Via Ferrata n. 9A, 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.



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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

**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 39th CYCLE (ACADEMIC YEAR 2023/24):

- Association of Experimental Institutes for Zooprohylaxis - degree awarded by the University of Pavia;
- National Research Council (CNR) - degree awarded by the University of Pavia;
- "Bruno Kessler" Foundation - degree jointly awarded by the University of Pavia and the University of Roma "La Sapienza";
- Institute "Sacro Cuore – Don Calabria" - degree awarded by the University of Pavia;
- Italian National Institute of Health - degree jointly awarded by the University of Pavia and the University of Roma "La Sapienza";
- 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 Torino - degree jointly awarded by the University of Pavia and the University of Torino.

RESEARCH TOPICS: The doctoral program 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:



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

- 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 doctoral program 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 enrollment, arithmetic average of the marks obtained in the exams taken during the second-level degree. These grades should be self-declared by the candidate on the self-certification form: 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 doctoral program: 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 either Italian or English must be provided. These letters should be written and sent directly by qualified professors/researchers who have supervised the candidate's work. During the application process, the candidate should enter the contact information of the chosen referees. The referees will then submit the reference letters directly to the University within the deadline for applications (see above).. Unlike other supporting documents, reference letters should not be uploaded by the candidate (reference letters uploaded by the candidate will not be considered 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 **March 11, 2024**. 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.



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

INTERVIEW: March 12, 2024, via videoconference. The interviews schedule will be published at <http://phd.onehealth.unipv.it> on March 11, 2024.

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>

PhD COURSE IN PUBLIC HEALTH AND LIFESTYLE

LOCATION: DEPARTMENT OF PUBLIC HEALTH, EXPERIMENTAL AND FORENSIC MEDICINE

COORDINATOR: Prof. CRISTINA MONTOMOLI

RESEARCH TOPICS:

Biostatistics methods for biomedicine and public health: environmental exposures and health in the general population. Environmental exposures and genetic susceptibility in chronic-degenerative diseases. Health indicators. Spatio-temporal evaluation models and predictive models of health determinants.

Research methodology in public health: design and analysis of observational and experimental studies. Models of statistical analysis for the identification of the population's health needs and for the evaluation of diagnostic tools, therapeutic interventions and **health and social care**.

Hygiene and Preventive Medicine: public health and community medicine, preventive medicine, rehabilitation and social **medicine**, primary prevention, secondary prevention and screening, tertiary prevention, prophylaxis, surveillance, environmental hygiene, workplace **and school hygiene**, food hygiene, health education and communication, health promotion.

Health Organization: epidemiology of services, analysis of current flows and health needs, evaluation of performance, population health, analysis of health policies and systems, impact and health technology assessment, planning and management of health services, international health and global health.

Work environments that promote health: research and application of factors that allow to **lead** healthy lifestyles, in order to prevent chronic non-communicable diseases (cardiovascular, musculoskeletal and chronic-degenerative) in economically active populations **and to bring about a close** integration with Total Workers Health (TWE) projects.

Industrial medicine and industrial hygiene: scenarios and determinants of **work-related** neoplastic and neurodegenerative diseases; exposure through environmental measures and biological monitoring, **specifically focused on** emerging risk factors in the workplace, **by providing** predictive and preventive models of health damage.



Forensic Medicine: forensic pathology and forensic histopathology; forensic medicine and forensic examinations on living **persons**; in particular, study of the causes of death and disability and their relation to diseases and conditions that can be prevented through lifestyle actions.

Forensic Sciences: use and abuse markers of psychotropic substances and study of their effects on quality of life. Genetic markers related to drug or substance abuse response. Study of lifestyle-related epigenetic effects.

Histology and Embryology: assessment of morphological changes in cells and tissues in response to exposure to **diverse** environmental factors (chemical-physical, psychological). Use of regenerative medicine/tissue engineering technologies for the regeneration of organs and tissues damaged by disease, trauma or incorrect lifestyles.

Dietetics and Human Nutrition: food security, food safety, sustainability of food models and systems, nutritional surveillance, food behavior, food education and dietary principles **for different** ages and physiological conditions of life (child, adult, elderly, pregnant, breastfeeding, sports).

Clinical Nutrition: assessment of the nutritional status and body composition in **pathophysiological condition**, pathophysiology and clinical nutrition, principles of diet therapy applied to diseases, functional foods, diets for special medical purposes and nutraceutical products, lifestyle medicine, personalized **and precision** nutrition.

Physical activity for the promotion of well-being, prevention and treatment of non-communicable diseases: study of the effectiveness of different paradigms and methodological approaches to research and intervention, necessary for the prevention and recovery of psychophysical well-being and health **both** in the healthy **people** and in the **ones** affected by non-communicable diseases.

Sports performance: study of different paradigms and methodological and technological approaches to research and intervention, useful for the study, the organization and planning of application and innovative projects aimed at the optimization of the training process and the maintenance/ improvement of **athletes'** performance and health.

ADMISSION PROCEDURE: qualifications assessment and interview.

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).

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. research project in Italian or English (max. 1500 words, bibliography excluded), related to the PhD research topics. The project's structure 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) discussion of the expected results with evaluation of the theoretical and/or practical implications of the research project. (**up to 5 points**);



- b. motivation letter in Italian or English (max 500 words) (**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 1 point**);
- 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 6/10.

The results of the qualifications assessment will be published online no later than **March 15, 2024**. 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: March 20, 2024, starting from 9:00 (CET), at Aula Seminari, Department of Public Health, Experimental Medicine and Forensic, via Forlanini 2, Pavia.

The interview will focus on the topics of 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: <https://spmsf.dip.unipv.it/it/didattica/post-laurea/dottorati-del-dipartimento/public-health-and-lifestyle>

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

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:

- e. 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



UNIVERSITÀ DI PAVIA

Area Ricerca
e Terza Missione

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**;

- f. 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**;
- g. 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**.
- h. 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 **November 8, 2023**. 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: November 15, 2023, at 11:15 (CET), at Aula C of the Department of Biology and Biotechnologies, Genetics buildings, Via ferrata n. 9A, 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: <http://dottorati.unipv.eu/on-dip/phdsgb/Home.html> homepage of the website "Admission to PhD".

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 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 <http://studentonline.unipv.it/esse3/Home.do>.

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 second-level degree course (**up to 3 points**);
- b. *curriculum vitae et studiorum* (**up to 3 points**);
- c. former experience in the field of the research topic (**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 1 point**);
- e. 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.

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 **March 15, 2024**. 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: March 26, 2024 at 9:30 (CET), Aula B of the Department of Molecular Medicine – Physiology section – Via Forlanini n. 6, Pavia.

The interview will be held in Italian and will verify the candidate's knowledge of English. The interview will concern some research topics, 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



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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/>

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 tests (written test 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 **March 12, 2024**. 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: March 20, 2024, at 14:00 (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;



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

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.



UNIVERSITÀ DI PAVIA
Area Ricerca
e Terza Missione

PHD COURSE IN HISTORY

LOCATION: DEPARTMENT OF POLITICAL AND SOCIAL SCIENCES

COORDINATOR: Prof. ELISABETTA COLOMBO

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>

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

ADMISSION PROCEDURE: qualifications assessment.

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**);
- 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 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). 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 during the three years of PhD course (**up to 5 points**).

A curriculum vitae is also required.

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



UNIVERSITÀ DI PAVIA

Area Ricerca
e Terza Missione

The results of the qualifications assessment will be announced no later than **March 20, 2024**. 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.

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