



Excerpt from the Rector's decree n. 2/2021

Call for the selection of 1 Senior Research Fellows

(Under the Italian Law 240/2010 article 24, subparagraph 3, point b)

The University of Pisa announces a call for 36 Senior Fixed-Term Research Fellows for: **(Annex A)**.

The fixed-term contract is to carry out research activities, teaching, integrative teaching activities and services for students, for a 350 hours commitment, on a full-time basis.

The Senior Research Fellow is required to perform lectures for a minimum of 48 up to a maximum of 96 hours per academic year, allocated as an institutional assignment for Bachelor's and Master's degree programmes, Specialization Schools and PhD programmes.

Contract duration: 3 years

Gross annual salary: € 42.879,60

Deadline for application: 15/03/2021, 1 p.m.

Admission requirements:

PhD or equivalent academic qualification awarded in Italy or abroad and recognised as eligible for admission.

As for a qualification awarded abroad, equivalency or comparability documentation has to be provided as stated under:

D.Lgs.165/2001, article 38:

http://www.funzionepubblica.gov.it/sites/funzionepubblica.gov.it/files/modulo_equivalenza_Titoli_Accademici.pdf

Or under:

D.P.R. 382/1980, article 74:

[http://www.miur.gov.it/documents/20182/0/Equipollenza Dottorato ricerca dpr382.pdf/f5ff98ae-ddff-4166-a822-83ef1b57c7f0](http://www.miur.gov.it/documents/20182/0/Equipollenza_Dottorato_ricerca_dpr382.pdf/f5ff98ae-ddff-4166-a822-83ef1b57c7f0)

As for an equivalent or comparable academic qualification, the candidate shall be admitted within the application's deadline and shall provide the qualification equivalency or comparability before the signing of the contract.

Candidates are required to declare what follows:

1. To enjoy the full rights of citizenship in their home State
2. Not to have been convicted or found guilty of any criminal offence; in the event of any conviction, it is mandatory to provide the details of the relevant judgments and any pending criminal proceedings;

3. Not to have been dismissed or dispensed from employment by a Public Administration for persistent unsatisfactory performance; not to have been lapsed from State employment, in compliance with art. 127, first paragraph, point d) of the Consolidation Act of Provisions concerning the State civil servants approved by Presidential Decree no. 3 of 10 January 1957;
4. to be registered on the electoral roll;

Required qualifications:

to have been employed as a Fixed-Term Research Fellow for a three- year period already completed by the application's deadline; (Under the Italian Law 240/2010, article 24, subparagraph 3, point a)

or

to be a researcher, a scholar or a scientists holding the Italian National Certification for Full or Associate Professor (Under the Italian Law 240/2010 article 16);

or

to hold a Medical Specialty School qualification for the relevant medical fields;

or

to have had at least a three-year period of contracts, even when not consecutive and already completed by the application's deadline, performed with:

- research grants (under the Italian Law 449/97, art 51, subparagraph 6 or the Italian Law 240/2010 article 22 or comparable academic contracts abroad)
- post PhD grants (under the Italian Law 398/1989, article 4 or comparable academic contracts abroad)
- **contracts concluded in compliance with the Law no. 230 of 4 November 2005, art. 1, paragraph 14.**

Please note: the above-mentioned three-year period could aggregate: Fixed-Term Research Fellowship, post PhD research grants and fellowship in foreign Universities (under DM 662/2016).

No admission to this selection for:

- Professors or Research Fellows with permanent position at the university, currently employed or currently retired;
- Fixed-term Research Fellowship or Post PhD research grants at the University of Pisa or other Italian universities, either public, private or online, and other public institutions (Under the Italian Law Italian Law n. 240/2010, articles 22 and 24) for a period that, totalled over this contract, would exceed 12 years altogether, even when not consecutive. As for the duration of the working period mentioned above, parental leave or medical leave, are excluded (under the existing legislation).
- Candidates who have relationship, kindred or affinity up to and including the fourth degree to any of the related department professors, or to the University's Rector, General Director and Administration Board members

Applications:

Applications are to be submitted online only, using the following link: <https://pica.cineca.it/unipi/> or shall be invalid. It is necessary to have an email address to login and complete the application.

Applicants should fill in all the required data and upload all documents in PDF format.

The system allows saving a draft of the application within the application deadline. The system will register the online application date and send a receipt with an automatic e-mail reply. After deadline, the system will not allow login nor application submission.

In order to be valid, application shall include all the required data, applicant's signature and a valid identification document.

Please forward to the Rector by the submission deadline any further variation, by the Italian certified e-mail system address (P.E.C. Posta Elettronica Certificata): protocollo@pec.unipi.it or by e-mail address concorsi_ricercatori@unipi.it, (only PDF documents are allowed, dated and signed ; a candidate's valid ID card copy is required in attach).

For further information on application submission, please refer to concorsi@adm.unipi.it

For any IT malfunctioning please refer to unipi@cineca.it.

Applications shall be completed with the following annexes:

1. A self-attested Curriculum of the personal didactics, teaching and scientific activities, dated and signed; the curriculum must include all the qualifications applicant considers eligible for this selection;
2. The Publications applicant considers eligible for this selection;
3. The corresponding list dated and signed;
4. A complete list of all Publications, dated and signed;
5. A copy of the fiscal code (if applicable) and identification card/passport, dated and signed;

All publications should not exceed 30 megabyte and are to be submitted in PDF format only, using the specific section of the application form.

Selection procedure:

A Rector's Decree will appoint the Selection Committee, consisting of three members.

The selection will be made according to a preliminary assessment of the candidates with an accurate and evidenced analytic evaluation of the Curriculum, of qualifications and scientific results, including PhD thesis.

After the preliminary assessment, the candidates that have comparatively proven to be the most meritorious, will be admitted to an open interview; they will represent between 10 and 20 % of the total and will be not less than six. The interview will concern applicant's qualifications and scientific results. In the event the number of applicants is six or less, all candidates are admitted. All admitted candidates will be summoned by registered post at least twenty days before the interview; the failed attendance to the interview will be considered as a voluntary renunciation.

During the interview, all candidates will be furthermore tested on the foreign language skills requested by the selection.

Selection Committee meetings for purposes other than qualifications and publications assessment may be held remotely, in whole or in part, using a video meeting platform, in compliance with the Regulation “Regolamento temporaneo per lo svolgimento delle sedute collegiali in modalità telematica” art. no. 2,3 and 4, referred to in the Rectoral Decree no. 491/2020 of 6 March 2020 and subsequent amendments, as well as with the Rectoral Decree no. 1099/2020 of 7 August 2020, art. 3.

Qualifications and publications assessment will be held “in-presence”, pursuant to the Rectoral Decree no. 1099/2020 of 7 August 2020, art. 1, and in compliance with the “Safety Protocol against Covid19 Spread. Guidelines for in-presence Selection Procedures”, issued by the Rectoral Decree no. 1011/2020 of 21 July 2020.

Candidates will be summoned by registered mail at least twenty days before the assessment of qualifications and publications; the failed attendance to the assessment interview will be considered as the candidate’s voluntary and tacit waiver to the selection.

At least one member of the Selection Committee shall be present during the qualifications and publications assessment; the other Committee members can attend the selection procedure either “in-presence” or remotely, in compliance with the Regulation “Regolamento temporaneo per lo svolgimento delle sedute collegiali in modalità telematica”.

In the event of “in-presence” selection procedures also attended remotely by one or more Committee member, it shall be specified that the session is held “in-presence”, allowing however one or more Committee member to attend remotely and indicating the possible operating procedures for attendance; the selection minutes must include both the names of the members “in presence” and remotely connected, along with the operating platform used.

In order to ensure a limited access to the premises where the qualifications and publications assessment is carried out, auditors shall be allowed in (in compliance with the aforementioned Safety Protocol) only upon written request to be emailed at least two days before the selection procedure to concorsi_ricercatori@unipi.it. Live Streaming will be provided at <https://www.unipi.it/index.php/concorigare-e-bandi> (see the relevant section) to guarantee the publicity of the qualifications and publications assessment.

Upon the Selection Committee approval, candidates living abroad and therefore unable to attend the “in-presence” interview at the University of Pisa, will be interviewed via web, prior their identification by approved international universities or research centers. The Selection Committee is appointed to assure the duly examination of the candidates and shall collect their ID copy.

The list of candidates admitted to the interview will be published on the university website at <https://www.unipi.it/index.php/concorsi-gare-e-bandi> in the section dedicated to the procedure in this call.

Please note that the English version is given as a matter of courtesy, for the only purpose of information. It cannot be legally used in the event of a dispute or a claim arising from the interpretation of this translation and concerning the contents, a possible uncertainty, contradiction or discrepancy. Should this occur, the Italian version of the call shall prevail as the only valid. For full Italian text see: <https://www.unipi.it/ateneo/bandi/ricercat/ricercator/index.htm>

(1) If applicable

(2)

Selection code A_1

Department of Biology

Admission Examination Sector: 05/I2 - Microbiology

Disciplinary Scientific Sector: BIO/19 Microbiology

Nr. of position available: **1**

Focus of research:

Research activity will be focused on morphological and physiological studies of microbial interactions, as a model for the comprehension of biological processes. Furthermore, research will be aimed at investigating cellular and molecular basis of microbial pathogenicity as well as novel therapeutic strategies. Techniques utilised will include conventional microbiological methods also applied to biotechnological aspects of research

Scientific productivity:

Scientific production will be aimed at dissemination of results by publication of manuscripts (1-4/year) evaluated on the basis of internationally recognized impact factors and oral/poster communications at National and International conferences. Participation to National and International research projects will also be pursued.

Head office:

Department of Biology

Specific didactic activity of the contract

Teaching activity will be fulfilled by lecturing 1 course of microbiological disciplines according to the Departmental teaching needs and by performing tutorial activity of students in the laboratory (supervision of undergraduate and PhD thesis) as well as in practical tutorials of Microbiology courses. Teaching activity will also include seminars for the "Biology" PhD course.

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 20 scientific publications

Selection code A_2

Department of Biology

Admission Examination Sector: 05/E2 Molecular biology

Disciplinary Scientific Sector: BIO/11 Molecular biology

Nr. of position available: **1**

Focus of research:

Molecular basis of regulation of gene expression in cell-type-specific physiology and pathology. Expertise in “omics” technologies, biochemical and bioinformatic methods, genetic engineering and bio/nano technologies, in agreement with the declaration of the ssd BIO/11 (Molecular biology)

Scientific productivity:

Scientific publications in ISI-indexed journals, participation in competitive calls for proposals at national and international levels, delivering oral presentations at national and international conferences. Collaborating with national and international renowned research Institutes

Head office:

Department of Biology

Specific didactic activity of the contract

The teaching activity will be fulfilled within the courses of the BIO-11 sector and will consist in frontal lectures and practical lab exercises, according to the Departmental yearly teaching plan. Other teaching duties will be the supervision of undergraduate and PhD students, as well as seminars for PhD programme

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_3

Department of Chemistry and Industrial Chemistry

Admission Examination Sector: 03/A1 Analytical chemistry

Disciplinary Scientific Sector: CHIM/01 Analytical chemistry

Nr. of position available: **1**

Focus of research:

Analytical chemistry develops theories, methodologies, techniques and instruments to determine the qualitative and quantitative composition and structure of natural and artificial chemical systems with different aggregation states and variable complexity, also in the field of bioanalytical and merceology. All the processes related to the pre-analytical stages (sampling, separation, enrichment, matrix modifications) as well as the development and use of instruments for the evaluation of the quality of the data (for example chemometry). As part of the declaration of SSD CHIM / 01, the research is aimed at the development, implementation and optimization of analytical procedures for the characterization of complex systems, based mainly on gas and liquid chromatography interfaced with mass spectrometry

Scientific productivity:

A significant number of scientific publications and communications to national and international meetings

Head office:

Department of Chemistry and Industrial Chemistry

Specific didactic activity of the contract

Teaching courses that pertain to the discipline CHIM / 01-Analytical Chemistry for bachelor and master degree

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 20 scientific publications

Selection code A_4

Department of Chemistry and Industrial Chemistry

Admission Examination Sector: 03/C1 Organic chemistry

Disciplinary Scientific Sector: CHIM/06 Organic chemistry

Nr. of position available: **1**

Focus of research:

Study of carbon-containing compounds, both natural and synthetic, including amino acids and their polymers, lipids and sugars. Development of efficient and environmentally friendly synthetic methodologies, also based on (stereo)selective and catalytic approaches; elucidation of the mechanisms by which organic compounds are formed and transformed both in the laboratory and in natural and environmental systems, their supramolecular interactions, structural characterization and structure-reactivity relationships. Design of new catalysts, biologically active compounds, new organic materials, polymers and bio-polymers

Scientific productivity:

Gain and demonstrate full scientific independence, possibly through the supervision of BSc, MSc and PhD theses. Scientific publication in international journals and access to competitive calls for research grants. Disseminate scientific results through the web and in other public activities

Head office:

Department of Chemistry and Industrial Chemistry

Specific didactic activity of the contract

Laboratory and theoretical courses of Organic Chemistry in BSc and MSc programs of the University of Pisa, compatible with the minimum and maximum commitments defined by the law and the Regulation of the University of Pisa for RTD-B

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_5

Department of Civilisations and Forms of Knowledge

Admission Examination: 10/C1 Cinema, music, performing arts, television and media studies

Disciplinary Scientific Sector: L-Art/05 Performing arts

Nr. of position available: **1**

Focus of research:

Studies concerning the theoretical, historical, methodological and organizational aspects of the theatrical performance, with specific attention to dramaturgy, direction, acting, dance, screenplay, set design and other moments of staging

Scientific productivity:

In terms of scientific productivity, the purposes will mainly consist in: enhancement of sources, documents and materials related to the research, conference activities and publication of scientific contributions, with particular attention to the scenic and architectural aspect of the theatrical event

Head office:

Department of Civilisations and Forms of Knowledge

Specific didactic activity of the contract

Teaching activities are expected within the disciplinary field indicated for the bachelor's and master's degree programmes, in particular "History of scenography" and "History of theatre and performance" (Bachelor Degree in Studies in performing arts and communication – DISCO; Cultural Heritage - SBC), "Dramaturgy and Performance" (Master Degree in History and forms of the visual and performing arts and new media - SAVS)

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_6

Department of Civilisations and Forms of Knowledge

Admission Examination: 11/C2 Logic, history and philosophy of science

Disciplinary Scientific Sector: M-FIL/02 Logic and philosophy of science

Nr. of position available: **1**

Focus of research:

As established in the declaration of the scientific-disciplinary area: "Research deals theoretically and historically with the organic connections between philosophical research and scientific knowledge, logic with its specific methods, the logical structure of natural languages, computation and communication, epistemology and representation of knowledge, methodological and foundational issues specific to individual sciences in close relationship with their development

Scientific productivity:

Publication of essays in international journals. Participation in national and international conferences

Head office:

Department of Civilisations and Forms of Knowledge

Specific didactic activity of the contract

Philosophy of science courses, with particular reference to the philosophy of social and human sciences, and to the philosophy of technology

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_7

Department of Economics and Management

Admission Examination: 12/B1 - Business law

Disciplinary Scientific Sector: IUS/04 - Business law

Nr. of position available: **1**

Focus of research:

Research activity related to the scientific-disciplinary field IUS/04 - Diritto commerciale

Scientific productivity:

The research activity shall be aimed to achieve an high-level academic degree through the publication of articles on outstanding law journals (band A), projects with national and international universities and the involvement in national and international conferences

Head office:

Department of Economics and Management

Specific didactic activity of the contract

Teaching activity related to the scientific-disciplinary field IUS/04

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_8

Department of Economics and Management

Admission Examination: 13/B1 - Business administration and accounting studies

Disciplinary Scientific Sector: SECS-P/07 Business administration and accounting studies

Nr. of position available: **1**

Focus of research:

It will concern the study of the main organization constituents and of the factors contributing to the long-term economic development of companies, considering profit, non-profit organizations and public administrations, including healthcare organizations.

The sector of Business Administration includes two closely linked research fields: the studies of business administration, which involve theories of the firm and of business groups, strategies and business policies, analysis and design of business processes, business ethics, financial statements, business evaluation, auditing and consulting; the studies of Accounting which regard the evaluation, analysis and use of data to support decision and control processes, accounting and financial statements (including financial auditing and financial analysis), accounting for decision making (management accountants, planning and control), accounting history

Scientific productivity:

A monograph, contributions in volumes and articles published in qualified national and international journals in the field of business administration

Head office:

Department of Economics and Management

Specific didactic activity of the contract

Courses mainly related to the sector Business Economics (SSD SECS-P/07) offered by Dipartimento di Economia e Management

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_9

Department of Pharmacy

Admission Examination: 05/E2 Molecular biology

Disciplinary Scientific Sector: BIO/11 Molecular biology

Nr. of position available: **1**

Focus of research:

Study of biological functions of the informational macromolecules, in particular nucleic acid-protein and protein-protein interactions; study of macromolecules involved in gene expression regulation, proliferation and differentiation

Scientific productivity:

Dissemination of the results to the scientific community through publications in peer-reviewed international journals and presentation of the results in national and international meetings

Head office:

Department of Pharmacy

Specific didactic activity of the contract

Courses in the field of Molecular Biology for training activities of the SSD BIO/11 for the Bachelor and Master's degree courses of the University of Pisa

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_10

Department of Pharmacy

Admission Examination: 05/G1 Pharmacology, clinical pharmacology and pharmacognosy

Disciplinary Scientific Sector: BIO/14 Pharmacology

Nr. of position available: **1**

Focus of research:

Scientific activity in the field of the study of drugs, radiopharmaceuticals, nutraceuticals and toxic substances present in products of natural, synthetic, biosynthetic and biotechnological origin. The research activity will be directed to the evaluation of the descriptive aspects of the aforementioned products or their sources, of the actions on the organism (pharmaco- and toxicodynamic, from organosystemic to mechanistic aspects) and of the actions of the organism on them (pharmaco- and toxicokinetics in the aspects of absorption, distribution, metabolism and elimination), of the relationship of the individual genetic configuration with responses to specific drugs (pharmacogenomic-pharmacogenetic). The research will also be directed to the evaluation of the risk/benefit and cost/benefit ratios in the aspects of human employment (drug epidemiology, pharmacovigilance and pharmacoeconomics)

Scientific productivity:

Scientific publications on ISI international journals, participation to national and international conferences in the research field, starting scientific cooperation on topics defined by the program with Italian and /or foreign organizations and institutions

Head office:

Department of Pharmacy

Specific didactic activity of the contract

Teaching courses of the Department of Pharmacy and other Departments of the University of Pisa in which the SSD (disciplinary scientific sector) skills are requested

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 25 scientific publications

Selection code A_11

Department of Philology, Literature and Linguistics

Admission Examination: 10/L1 English and anglo-american languages, literatures and cultures

Disciplinary Scientific Sector: L-LIN/12 Language and translation - English

Nr. of position available: **1**

Focus of research:

The research will cover the topics contained in the declaratory of the scientific disciplinary sector L-LIN/12, specifically the phonological, morphological, syntactic, lexical, textual and pragmatic structures of the English language, from both a synchronic and a diachronic perspective; the levels and registers of oral and written communication; the theories and practices of translation – literary and nonliterary, general and specialized, and its applications to multimediality (including translation and interpreting as in art. 1 L.478/84

Scientific productivity:

Publications in peer-reviewed journals at international level; publications in conference proceedings

Head office:

Department of of Philology, Literature and Linguistics

Specific didactic activity of the contract

BA and MPhil degree courses; participation in the doctoral seminars active in the Department

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_12

Department of Philology, Literature and Linguistics

Admission Examination: 10/D3 Latin language and literature

Disciplinary Scientific Sector: L-FIL-LET/04 Latin language and literature

Nr. of position available: **1**

Focus of research:

Latin and their authors, from the origins to the end of antiquity, including the age of the Roman-Barbarian kingdoms, with the methodologies of textual criticism, linguistic history, and literary analysis; s/he will also do research on the Latin language and its history. Another possible field of activity is that of the teaching of Latin language and literature and the study of Latin texts with the help of linguistics and computer analysis

Scientific productivity:

Publications in peer-reviewed journals at international level; publications in conference proceedings

Head office:

Department of of Philology, Literature and Linguistics

Specific didactic activity of the contract

BA and MPhil degree courses; participation in the doctoral seminars active in the Department

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_13

Department of Philology, Literature and Linguistics

Admission Examination: 10/M2 Slavic studies

Disciplinary Scientific Sector: L-LIN/21 Slavic studies

Nr. of position available: **1**

Focus of research:

The research will cover the topics contained in the declaratory of the scientific disciplinary sector L-LIN/21, specifically the studies on the literary works in the Russian language and their authors; the successful candidate may conduct his/her research adopting one or several or a combination of methodological tools, such as philology, paleography, linguistics, textual criticism, literary analysis, producing original publications based on study of the original texts and sources and their thematic, figurative, formal aspects. The candidate will also have to demonstrate a solid competence of the Russian language and the capacity for metalinguistic analysis of its aspects, synchronically and diachronically, its phonetics, morphology, syntax, lexicon, as well as its pragmatics, and the different levels and register of the written and oral communication. His/her research may also encompass the problems of the teaching of the Russian language and literature, and the theory and practice of translation, including non literary translation, translation of special languages, multimedia applications and interpreting, from Russian to Italian and viceversa (as per art. 1 of Italian Law 478/84)

Scientific productivity:

Scholarly publications in the above mentioned fields, Conference presentations, participation in national and international research projects

Head office:

Department of of Philology, Literature and Linguistics

Specific didactic activity of the contract

BA and MPhil degree courses; participation in the doctoral seminars active in the Department.

Candidates will be required to demonstrate an adequate knowledge of **Russian** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_14

Department of Physics

Admission Examination: 02/A2 Theoretical physics of fundamental interactions

Nr. of position available: **1**

Focus of research:

The issues reported in the DECLARATORIA of the Admission Examination 02/A2

Scientific productivity:

Publications and contributions to conferences

Head office:

Department of Physics

Specific didactic activity of the contract

Basic courses of physics and advanced courses of theoretical physics

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

The presentation of a report on the research activity is recommended

Selection code A_15

Department of Physics

Admission Examination: 02/A1 Experimental physics of fundamental interactions

Nr. of position available: **1**

Focus of research:

The issues reported in the DECLARATORIA of the Admission Examination 02/A1

Scientific productivity:

Publications and contributions to conferences

Head office:

Department of Physics

Specific didactic activity of the contract

Basic courses of physics

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

The presentation of a report on the research activity is recommended

Selection code A_16

Department of Law

Admission Examination: 12/E3 Economics, financial and agri-food markets law and regulation, navigation and air law

Disciplinary Scientific Sector: IUS/05 Economics law

Nr. of position available: **1**

Focus of research:

Study of the markets regulation and economic activities, aimed at deepening their public and private profiles according to an interdisciplinary method, taking into account the plural and multi-level dimension of regulation, with reference to the discipline of privates and public authorities at all levels

Scientific productivity:

Publication of a monographic work or essays and contributions in reviewed journals and collective works related to the research field

Head office:

Department of Law

Specific didactic activity of the contract

Curricular teaching, integrative teaching and student services activated in the SSD IUS/05, in the master's degree courses in "Innovation Law for Business and Institutions" and in the single-cycle master's degree course in "Law

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_17

Department of Computer Science

Admission Examination: 01/B1 Informatics

Disciplinary Scientific Sector: INF/01 Informatics

Nr. of position available: **2**

Focus of research:

Research activities in the fields of the academic discipline INF/01 Informatics

Scientific productivity:

Contributions to the progress of the state of art in Computer Science by means of international level publications

Head office:

Department of Computer Science

Specific didactic activity of the contract

The duties of the role include delivering teaching to all levels of students (undergraduate and graduate) of the academic discipline INF/01 - Informatics

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_18

Department of Civil and Industrial Engineering

Admission Examination: 09/A1 Aeronautical and aerospace engineering and naval architecture

Disciplinary Scientific Sector: ING-IND/07 Aerospace propulsion

Nr. of position available: **1**

Focus of research:

The research will cover the topics contained in the declaratory of the scientific disciplinary sector ING-IND/07, specifically experimentation, characterization and analysis of chemical rocket engine systems and subsystems, with special reference to liquid propellant engines, turbopumps for feeding propellants to the combustion chamber, and single- and bi-propellant rocket propulsion systems that use ecologically compatible propellants ("green" propellants). The research activities will include the phenomena and chemical-physical processes involved in this type of propulsion systems; the design, technology and plant engineering aspects; the aspects relating to the performance evaluation and the experimentation and measurement techniques. The researches shall have to be carried out through the synergic use of experimental methodologies and reduced order theoretical models, in order to highlight the main phenomena involved and their mechanisms of action in determining the performance and defining the design of liquid propellant rocket propulsion systems and their subsystems

Scientific productivity:

Design, implementation and co-ordination of research activities in the aerospace propulsion sector, developed in national/international contexts in collaboration with Italian/foreign organizations, institutions and companies. Publication of the results in indexed international scientific journals and conferences, with acceptance subject to review of the submitted contributions. The scientific productivity must be competitive, in quality and quantity, with the reference standards of the scientific-disciplinary sector ING-IND/07 Aerospace propulsion

Head office:

Department of Civil and Industrial Engineering

Specific didactic activity of the contract

Teaching, student tutoring, supervision of B.S. (Laurea), M.S. (Laurea Magistrale) and Doctoral graduation theses in Aerospace Engineering, and other institutional activities

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_19

Department of Civil and Industrial Engineering

Admission Examination: 09/C2 Thermal sciences, energy technology, building physics and nuclear engineering

Disciplinary Scientific Sector: ING-IND/19 Nuclear power plants

Nr. of position available: **1**

Focus of research:

The objective of the research is the theoretical and experimental study of safety systems and components of nuclear fusion and fission plants from a structural, thermo-hydraulic and thermo-fluid dynamic point of view. In particular, the research will concern:

- nuclear fusion plants, with particular reference to the ITER plant under construction and the DEMO industrial demonstrator,
- fourth generation nuclear fission plants.

Some components of nuclear fusion reactors such as the breeding blanket and divertor will also be the subject of the research. The research will be carried out using experimental facilities available at the Department of Civil and Industrial Engineering (B. Guerrini Laboratory), structural codes, system and CFD codes in collaboration with Universities and National and International Research Centers

Scientific productivity:

The objectives of scientific productivity will be the design, implementation and coordination of research activities in the field of the nuclear fusion and fission reactors, developed in national and international contexts in collaboration with Italian and foreign institutions. Participation at European, national and international research projects, technology transfer. Improvement of the reliability and safety of nuclear fusion and fission plants.

Publication of the results in indexed international scientific journals, participation at national and international conferences

Head office:

Department of Civil and Industrial Engineering

Specific didactic activity of the contract

Teaching, student tutoring, supervision of B.S. (Laurea), M.S. (Laurea Magistrale) and PhD theses in Nuclear Engineering, and other institutional activities for a total of 350 hours per year under full-time regime, of which 90 hours per year of teaching (lessons) and/or teaching assistance for the specific courses of the scientific sector 'Nuclear Plants' foreseen by the didactic programming of the M.S. (Laurea Magistrale) Degree in Nuclear Engineering

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_20

Department of Energy, Systems, Territory, and Construction Engineering

Admission Examination: 09/C1 Fluid machinery, energy systems and power generation

Disciplinary Scientific Sector: ING-IND/09 Energy systems and power generation

Nr. of position available: **1**

Focus of research:

The research will cover the topics contained in the declaratory of the scientific disciplinary sector ING-IND/09, specifically methods and technologies for the research and development of components and distributed power and thermal systems with activities of design, control and energy, fluid dynamic and environmental analysis of components and energy systems with an approach based on numerical methods and experimental measurements

Scientific productivity:

Production of scientific papers in international scientific journals (1-3 papers per year on high impact journals), participation at national and international congresses and conferences, participation in projects funded by the EU, the Italian national and regional governments, other national and international public and private institutions and participation at projects of technology transfer. Improvement of knowledge about energy systems with the aim of contributing to the technical and engineering development

Head office:

Department of Energy, Systems, Territory, and Construction Engineering

Specific didactic activity of the contract

Didactic activities, including face-to-face lessons, in the courses and modules classified in the disciplinary sector of Systems for Energy and Environment for the programs of study for the achievement of first and second level degrees, that foresee them, and PhD studies. The researcher will have to contribute to tutoring activities and to support students in the preparation of their Master and PhD thesis

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_21

Department of Energy, Systems, Territory, and Construction Engineering

Admission Examination: 09/C2 Thermal sciences, energy technology, building physics and nuclear engineering

Disciplinary Scientific Sector: ING-IND/10 Thermal engineering and industrial energy systems

Nr. of position available: **1**

Focus of research:

Specific areas of Applied Thermodynamics and Heat Transfer, with reference to methodological analyses and experimental activities related to the energy performances of components and systems for civil and industrial applications

Scientific productivity:

The scientific activity involves direction or participation in research projects financed by public or private bodies, the preparation of scientific articles for prevalently international publications, both in journals and scientific conferences, and the possible filing of industrial patents. Scientific productivity must be consistent with that of the SSD ING-IND/10

Head office:

Department of Energy, Systems, Territory, and Construction Engineering

Specific didactic activity of the contract

The teaching activity will be carried out within the teachings of the SSD ING-IND/10 and will consist of lectures and exercise activities for students, according to the needs of the teaching programs. This also includes tutoring activity in the preparation of undergraduate and doctoral theses

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_22

Department of Information Engineering

Admission Examination: 09/G1 Systems and control engineering

Disciplinary Scientific Sector: ING-INF/04 Systems and control engineering

Nr. of position available: **1**

Focus of research:

Methods and Technologies for the treatment of signals and data for plant automation (i.e., planning, management and control, all to be executed in automatic manner), for plants processes and in general dynamic systems

Scientific productivity:

Advances in the state of the art in the topics within area 09/G1, documented by high quality publications in peer reviewed journals; capability of acquiring funds for scientific and technological research and development at the local, national, and international level

Head office:

Department of Information Engineering

Specific didactic activity of the contract

Basic and advanced courses within area 09/G1

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_23

Department of Information Engineering

Admission Examination: 09/H1 Information processing systems

Disciplinary Scientific Sector: ING-INF/05 Information processing systems

Nr. of position available: **1**

Focus of research:

Research activities related to the scientific area ING-INF/05 – Information Processing Systems

Scientific productivity:

Publication of papers on qualified international scientific journals; participation to international conferences; involvement in national and international research projects

Head office:

Department of Information Engineering

Specific didactic activity of the contract

Teaching activity in courses of the scientific sector ING-INF/05 – Information Processing Systems.
Management of teaching activities and projects

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_24

Department of Information Engineering

Admission Examination: 09/G2 Bioengineering

Disciplinary Scientific Sector: ING-INF/06 Electronic and informatics bioengineering

Nr. of position available: **1**

Focus of research:

Research activities pertinent to the scientific discipline ING-INF/06 - Electronics and Informatics Bioengineering

Scientific productivity:

Significant advances in topics within the area 09/G2 documented by high quality peer-reviewed publications. He/she is expected to bid for competitive research funding at the local, national, and international level

Head office:

Department of Information Engineering

Specific didactic activity of the contract

Courses within the area 09/G2 - SSD ING-INF/06

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_25

Department of Mathematics

Admission Examination: 01/A3 Mathematical analysis, probability and statistics

Disciplinary Scientific Sector: MAT/06 Probability and statistics

Nr. of position available: **1**

Focus of research:

Study, from both a theoretical and an applied viewpoint, of the calculus of probability and of the stochastic techniques related to it, of mathematical statistics and of the stochastic aspects of the theories of reliability, queuing, decision and games

Scientific productivity:

Publishing papers of interest in the realm of probability and mathematical statistics in generalist or specialized journals at a national or international level. Seminars in Universities, Research Institutes and international or national conferences

Head office:

Department of Mathematics

Specific didactic activity of the contract

Teaching of courses having as a topic the basics of mathematics, in any degree program of the university, and of advanced courses of probability or mathematical statistics topic in the first degree, master and PhD programs in mathematics

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_26

Department of Mathematics

Admission Examination: 01/A5 - Numerical analysis

Disciplinary Scientific Sector: MAT/08 - Numerical analysis

Nr. of position available: **1**

Focus of research:

Study of the numerical analysis and of the computational techniques, also using computers and parallel calculus. More generally, study of all the computational aspects of mathematics

Scientific productivity:

Publishing papers of interest in the realm of numerical analysis in generalist or specialized journals at a national or international level. Seminars in Universities, Research Institutes and international or national conferences

Head office:

Department of Mathematics

Specific didactic activity of the contract

Teaching of courses having as a topic the basics of mathematics, in any degree program of the university, and of advanced courses of numerical analysis topic in the first degree, master and PhD programs in mathematics

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_27

Department of Clinical and Experimental Medicine

Admission Examination: 05/H2 Histology

Disciplinary Scientific Sector: BIO/17 Histology

Nr. of position available: **1**

Focus of research:

Scientific research on the proliferation, differentiation, and structure of the variety of cell types that constitute the human body tissues as well as the extracellular components, the turnover and repair, the human embryology and their respective regulatory mechanisms and alterations. Development and application of methodological strategies, including the areas of histochemistry and molecular cytology, aimed at investigating cellular and subcellular structures their origin and their functional correlates to resolve specific scientific questions, with particular regard for peripheral tissue systems

Scientific productivity:

Preparation and implementation of research studies in the aforementioned field, preparation and submission of funding applications for research programs, preparation of manuscripts for publication in peer-reviewed journals of high scientific impact

Head office:

Department of Clinical and Experimental Medicine

Specific didactic activity of the contract

Teaching in medical study courses where the discipline is present

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_28

Department of Agricultural, Food and Agro-Environmental Sciences

Admission Examination: 07/E1 Agricultural chemistry, agricultural genetics and pedology

Disciplinary Scientific Sector: AGR/13 Agricultural chemistry

Nr. of position available: **1**

Focus of research:

Chemical, biochemical and physiological aspects in crop species under optimal and stressful conditions. The characterization of crop products including post-harvest conditions will be part of the research activity

Scientific productivity:

Publications in national and international journals; participation to national and international workshops; participation to national and international competitive research project

Head office:

Department of Agricultural, Food and Agro-Environmental Sciences

Specific didactic activity of the contract

Educational activity in the SSD AGR/13 in training courses provided by the Department of agricultural, food and environment. The activity will consist of frontal lectures and exercises together with the supervision of undergraduate and PhD students

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 18 scientific publications

Selection code A_29

Department of Agricultural, Food and Agro-Environmental Sciences

Admission Examination: 07/F1 Food science and technology

Disciplinary Scientific Sector: AGR/15 Food science and technology

Nr. of position available: **1**

Focus of research:

Biological, chemical, physical and technological issues that underlie the operations and processes of the agri-food chain, from the procurement of raw materials to the marketing, distribution and administration of food products, including the development of new products and new processes. The object of study will be in particular: the composition and analytical characterization of simple and processed food products; food technology operations and processes; the technology of conditioning, packaging and distribution of food; the shelf-life of the products; cleaning and sanitizing of systems; the evaluation of the sensory properties of the ingredients, raw materials and processed products; the use and control of additives and residues; the management, control and certification of the quality, safety and environmental sustainability of food and processes; the treatment of waste from the food industry

Scientific productivity:

Scientific articles in national and international journals; participation to national and international congresses; participation to national and international projects as Principal Investigator

Head office:

Department of Agricultural, Food and Agro-Environmental Sciences

Specific didactic activity of the contract

Educational activity in the SSD AGR/15 in training courses provided by the Department of Agricultural, Food and Environment. The activity will consist of frontal lectures and exercises together with the supervision of undergraduate and PhD students

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 14 scientific publications

Selection code A_30

Department of Geosciences

Admission Examination: 04/A2 Structural geology, stratigraphy, sedimentology and paleontology

Disciplinary Scientific Sector: GEO/01 Paleontology and paleoecology

Nr. of position available: **1**

Focus of research:

Study of life in past geologic time to reconstruct the history of life, to interpret and to place biological events and evolutionary processes over time in the light of the fossil evidences. Systematic and phylogenetic setting of the fossils, reconstruction of the paleocomunities, of their spatial and temporal variations, and of their interrelationships, study of the mechanisms of preservation and analysis of the sedimentogenetic role. Use of fossils for paleoenvironmental, palaeoclimatic, and palaeogeographic reconstruction. Analysis of major biological crises in order to interpret global changes with reference to recent ones

Scientific productivity:

Publication of a high number of scientific papers on international scientific journals with high impact factors; participation to national and international meetings; seminar and dissemination activities

Head office:

Department of Geosciences

Specific didactic activity of the contract

Teaching in classroom, laboratory and field exercises, assistance to students within the SSD GEO/01 teaching programs with particular emphasis on the vertebrate palaeontology; seminar activities within master and PhD programs; support to students during thesis works

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_31

Department of Geosciences

Admission Examination: 04/A2 Structural geology, stratigraphy, sedimentology and paleontology

Disciplinary Scientific Sector: GEO/02 Stratigraphy and sedimentology

Nr. of position available: **1**

Focus of research:

Analysis of recent and fossil marine stratigraphic successions, their description, spatial and temporal organisation and association and their visual representation; paleoenvironmental, paleoclimatic and paleogeographic reconstruction; composition and classification of sedimentary rocks; study of recent marine sedimentary environments and their dynamics on the Earth's surface. use of computer technology and geological applications to the management of natural resources, in scientific education and in the teaching of geosciences

Scientific productivity:

Publication of a high number of scientific papers on international scientific journals with high impact factors; participation to national and international meetings; seminar and dissemination activities

Head office:

Department of Geosciences

Specific didactic activity of the contract

Teaching in classroom, laboratory and field exercises, assistance to students within the SSD GEO/02 teaching programs; seminar activities within master and PhD programs; support to students during thesis works

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 15 scientific publications

Selection code A_32

Department of Political Sciences

Admission Examination: 13/A1 Economics

Disciplinary Scientific Sector: SECS-P/01 Economics

Nr. of position available: **1**

Focus of research:

Economics with particular attention to microeconomic and macroeconomic themes

Scientific productivity:

Scientific publications in international top journals in the fields of economics

Head office:

Department of Political Sciences

Specific didactic activity of the contract

Teaching activities in courses of microeconomics, macroeconomics and international economics; tutoring to undergraduate and graduate students, evaluation procedures in courses in economics, economic policy and applied econometrics held within the Department of Political Sciences

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_33

Department of Political Sciences

Admission Examination: 12/E1 International law

Disciplinary Scientific Sector: IUS/13 International law

Nr. of position available: **1**

Focus of research:

Studies on relationship between States, with reference to the structural features of the international legal order, to the legal subjects developed by it, to the relationship between domestic and international legal orders, to the international organisations, to the protection of human rights

Scientific productivity:

Publications, both in Italian and English, about the topics mentioned above on legal journal of renowned prestige at domestic and international level, or on collective books issued by publishers of renowned prestige; participation with presentation of papers to national and international conferences

Head office:

Department of Political Sciences - Accademia Navale Livorno

Specific didactic activity of the contract

Teaching in Italian on Public International Law, International Protection of Human Rights, Humanitarian Law, Law of International Organisations; teaching in English on International Migration Law, International Security Law. Tutoring for undergraduate and graduate students. Participation to evaluation procedures in course units belonging to the area of International and EU Law held within the Department of Political Sciences

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_34

Department of Veterinary Sciences

Admission Examination: 07/H3 Infectious and parasitic animal diseases

Disciplinary Scientific Sector: VET/05 Infectious diseases of domestic animals

Nr. of position available: **1**

Focus of research:

Essential aspects of bacteriology, virology, and immunology, will be evaluated. Investigations about etiology, epidemiology, pathogenesis, diagnosis and prophylaxis of animal infectious diseases will be carried out. Furthermore, aspect related to veterinary hygiene and organization of Veterinary System will be considered. Particular attention will be put in studies on bacterial zoonotic diseases

Scientific productivity:

Publication of research activities on international indexed and peer-reviewed journals; presentation of results in national and international congresses

Head office:

Department of Veterinary Sciences

Specific didactic activity of the contract

Teaching in courses in the degree courses of Veterinary Medicine, Animal Breeding Techniques and Dog Training, Animal Production Science and Technology and in post graduate courses of Scuola di Specializzazione in Ispezione degli alimenti di origine animale and Scuola di Specializzazione in Sanità Animale, Allevamento e Produzioni Zootecniche

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Selection code A_35

Department of Veterinary Sciences

Admission Examination: 07/A1 Agricultural economics and appraisal

Disciplinary Scientific Sector: AGR/01 Agricultural economics and rural appraisal

Nr. of position available: **1**

Focus of research:

topics related to the economic, political, managerial and estimative aspects of the production, transformation, distribution, market and consumption of products from the primary sector (agriculture, forestry and fishing) and agro-biotechnologies, their relationships with other components of the socio-economic and environmental system and the economic aspects of the environmental impact assessment. In particular, attention will be focused on economic aspects of planning and management of the territory and the rural environment (with reference to the analysis of ecosystem services), the interactions between agricultural systems and economic and social development (with reference to social farming), rural and environmental appraisal

Scientific productivity:

Publication of scientific papers in journals with IF and presentations at national and international conferences. Ability to acquire funding for scientific and technological development at local, national and international level. Involvement in third mission activities carried out to support the economic, social and cultural development of the community

Head office:

Department of Veterinary Sciences

Specific didactic activity of the contract

Teaching activity required: the teaching activity, in line with the annual academic program, will involve the development of courses related to the SSD AGR/01 in the field of economic and appraisal topics in CdS and doctoral programs of the Department concerning the veterinary medicine and the animal production in the different fields

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 18 scientific publications