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SERVIZIO CONCORSI E
PROCEDIMENTI ELETTORALI

**COMPARATIVE SELECTION FOR N. 14. SENIOR RESEARCH ASSOCIATES – ART. 24, PARAG. 3, LETTER B)
OF LAW NO. 240 DATED 30 DECEMBER 2010 - FULL TIME - NON-RENEWABLE THREE-YEAR TERM**

(DDG no. 801/2016 Register no. 26169-vii dated 11 LUG. 2016)

**DEPARTMENT OF SCIENZE DELLA FORMAZIONE, SCIENZE UMANE E DELLA COMUNICAZIONE
INTERCULTURALE**

n. 1 POSITION

Academic recruitment field: 10/L1 ENGLISH AND ANGLO-AMERICAN LANGUAGES, LITERATURES AND CULTURES

Academic discipline: L-LIN/12 LANGUAGE AND TRANSLATION - ENGLISH

Research Project: "Linguistic mediation and communication in English as a lingua franca in international contexts"

Research activities:

The researcher will carry out research, including on a collaborative basis, on the use of English in contexts of linguistic mediation and, more generally, in contexts in which English is used as an international lingua franca (migratory contexts, institutional settings etc.). The research will also include applied research on English for specific purposes and the teaching thereof, and on issues related to translation and interpretation

Hours of classroom teaching each academic year: at least 60 hours

Foreign requested language: ENGLISH - Level of proficiency: Level C2 of the European framework for languages

Preferential titles: Research doctorate in a field directly relevant to the contents of the research project; teaching experience at the university level in the scientific-disciplinary sector indicated; professional experience as an interpreter/translator

Maximum of scientific publications: 12

DEPARTMENT OF STUDI AZIENDALI E GIURIDICI

n. 1 POSITION

Academic recruitment field: 12/B1 BUSINESS LAW

Academic discipline: IUS/04 BUSINESS LAW

Research Project: "Companies and Firms within the European Union Market between Innovation and Competitiveness"

Research activities:

The research activity will examine the legal framework for companies in the process of building up a single European market.

The research project provides for three research paths:

- i) Business Networks (legal investigation of cooperative networks between enterprises analysed as a means of innovation and growth competition and as an element of challenge for competition rules;
- ii) Corporate Mobility (the establishment of companies with a view to the basic freedoms established in the European Treaties);
- iii) Transborder Operation (companies' processes of re-organisation and funding within the European



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Union framework).
Hours of classroom teaching each academic year: At least 60 hours in undergraduate and/or master's degree, also in English
Foreign requested language: ENGLISH - Level of proficiency: Advanced
Preferential titles: <ul style="list-style-type: none">• PHD or equivalent on topics of commercial law• Scientific publications in the field of commercial law and, in particular, in the subjects related to the commitment required.• Didactic activity done in master degree courses and bachelor degree courses with particular attention to the disciplinary scientific sector
Maximum of scientific publications: not less than 15 and not more than 20

DEPARTMENT OF BIOTECNOLOGIE, CHIMICA E FARMACIA

<u>n. 1 POSITION</u> Academic recruitment field: 05/E1 GENERAL BIOCHEMISTRY Academic discipline: BIO/10 BIOCHEMISTRY
Research Project: "Post-genomic biochemistry of rare human pathologies affecting the osteoarticular compartment"
Research activities: The research activity will focus on the application of post-genomic biochemistry to the study of human pathologies. Particular emphasis will be placed on the elucidation of the molecular basis of the pathophysiological mechanisms of diseases affecting the osteoarticular compartment. Knowledge of the scientific challenges related to rare metabolic and oncologic diseases will be of specific interest
Hours of classroom teaching each academic year: 60 hours
Foreign requested language: ENGLISH - Level of proficiency: Excellent
Preferential titles: National Scientific Qualification as Associate Professor in Biochemistry (SC 05/E1, SSD BIO/10). Adjunct professor in Biochemistry courses (SC 05/E1, SSD BIO/10). Proved tutoring activity of under graduated and PhD students. Proved scientific and technological expertise in the field covered by the call.
Maximum of scientific publications: 25

DEPARTMENT OF BIOTECNOLOGIE, CHIMICA E FARMACIA

<u>n. 1 POSITION</u> Academic recruitment field: 03/C1 ORGANIC CHEMISTRY Academic discipline: CHIM/06 ORGANIC CHEMISTRY
Research Project: "Development and application of computational models for the study of the photochemical reactivity of organic chromophores embedded in complex molecular environments"
Research activities: The researcher will develop and apply novel computational models/protocols for the simulation, with quantum chemical methods, of the photochemical reactivity of organic molecules (natural or synthetic) embedded in complex molecular environments. Accordingly, the main objectives of the proposed research are: (i) the classification of the effects of diverse environments (i.e. natural or artificial macromolecular and supramolecular cavities) or nanoparticle-solvent interfaces, (ii) the comprehension of the molecular mechanism controlling such effects and (iii) the development of an automatic protocol



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for the investigation of entire libraries of organic chromophores and/or environments. The research has the target of achieving a fast and automatic modeling method capable to assist the engineering of photomodulable molecules or materials useful in basic or technological research

Hours of classroom teaching each academic year: 60 hours

Foreign requested language: ENGLISH - Level of proficiency: Excellent

Preferential titles: PhD in the field of theoretical and/or computational chemistry

Maximum of scientific publications: 18

DEPARTMENT OF BIOTECNOLOGIE, CHIMICA E FARMACIA

n. 1 POSITION

Academic recruitment field: 03/B1 PRINCIPLES OF CHEMISTRY AND INORGANIC SYSTEMS

Academic discipline: CHIM/03 GENERAL AND INORGANIC CHEMISTRY

Research Project: "Crystallographic studies on enzymes involved in trypanosomal diseases and cancer"

Research activities:

The project concerns crystallographic studies aimed to discover new compounds with inhibitory/regulatory activity towards enzymes and proteins involved in diseases caused by trypanosomas and in cancer. The project is centered on enzymes of the folate pathway, but also on the study of protein-protein interactions in this metabolic pathway. The structural information will be used for the design of innovative molecules, either active site inhibitors or modulators of protein-protein interactions, which may interfere with metabolic processes decreasing the possibility of emergence of drug resistance. The project involves the production of protein targets by recombinant DNA methods for obtaining crystals. The project requires experience in crystallographic techniques involving the use of synchrotron radiation and computational techniques for crystal structure determination

Hours of classroom teaching each academic year: 60 hours

Foreign requested language: ENGLISH - Level of proficiency: Excellent oral and written

Preferential titles: Participation to research projects founded by the European Community

Maximum of scientific publications: 12

DEPARTMENT OF BIOTECNOLOGIE, CHIMICA E FARMACIA

n. 1 POSITION

Academic recruitment field: 03/A1 ANALYTICAL CHEMISTRY

Academic discipline: CHIM/01 ANALYTICAL CHEMISTRY

Research Project: "Determination and characterization of flavonoids, carotenoids, secoiridoids, lignans and glycoalkaloids in vegetable food products"

Research activities:

The project will focus on the characterization of nutraceutical and antioxidant components (flavonoids, carotenoids, secoiridoids, lignans and glycoalkaloids) in vegetable food products. *Ad hoc* protocols will be optimized through the combined use of traditional (chromatography, spectrometry, spectroscopy) and innovative analytical techniques (relaxometry NMRD, ToF-SIMS spectrometry). Carrier processes for the nutraceutical components will be also optimized, developing functionalized liposomes as drug-delivery systems. Particular attention will be devoted to the development and application of mathematical/statistical tools for data processing, which are essential to the interpretation of the results



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Hours of classroom teaching each academic year: 60 hours
Foreign requested language: ENGLISH - Level of proficiency: Excellent
Preferential titles: Research Doctorate (PhD) in Chemistry, Degree (undergraduate) in Chemistry. International experience in research facilities either in University or qualified Research Institutions for a period no less than three months
Maximum of scientific publications: 25

DEPARTMENT OF INGEGNERIA DELL'INFORMAZIONE E SCIENZE MATEMATICHE

<u>n. 1 POSITION</u>
Academic recruitment field: 09/E3 - ELECTRONICS Academic discipline: ING-INF/01 – ELECTRONIC ENGINEERING
Research Project: "Development of mixed-signal circuits and systems for cryptographic applications and for conditioning and processing of sensor signals"
Research activities: The researcher will conduct researches in the field of the Scientific Sector ING-INF / 01 – Electronics. The research activities will include the development of mixed-signal electronic circuits and systems, with particular reference to the generation of chaotic or pseudo-chaotic signals with controlled statistical characteristics for cryptographic applications, to the security of hardware devices, as well as to the conditioning and processing of sensor signals
Hours of classroom teaching each academic year: 60 hours
Foreign requested language: ENGLISH - Level of proficiency: Good
Preferential titles: a) At least five years of experience in the research areas of the field; b) Teaching experiences in universities, within the Sector 09/E
Maximum of scientific publications: 20, including the doctoral thesis if presented

DEPARTMENT OF FILOLOGIA E CRITICA DELLE LETTERATURE ANTICHE E MODERNE

<u>n. 1 POSITION</u>
Academic recruitment field: 10/D1 ANCIENT HISTORY Academic discipline: L-ANT/03 ROMAN HISTORY
Research Project: "Economic history of archaic Rome in a social and anthropological perspective"
Research activities: The appointee will be expected to pursue research activities relevant to the area of speciality L-ANT/03 (Roman History) with special reference to the forms, practices, and models of the Roman economy from the 8th to the 4th/3rd century BC. In keeping with the established lines of research characterizing the Department of Philology and Literary Criticism, the successful candidate will be expected to undertake the research in question interdisciplinarily, and in the light of the most state-of-the-art trends in historical and economic anthropology of the ancient world
Hours of classroom teaching each academic year: 60 hours
Foreign requested language: ENGLISH - Level of proficiency: Full/advanced professional proficiency
Maximum of scientific publications: 12



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DEPARTMENT OF SCIENZE SOCIALI POLITICHE E COGNITIVE

<u>n. 1 POSITION</u>
Academic recruitment field: 10/G1 HISTORICAL AND GENERAL LINGUISTICS Academic discipline: L-LIN/01 HISTORICAL AND GENERAL LINGUISTICS
Research Project: "Theoretical linguistics and language acquisition, with special reference to the experimental study of the acquisition of morpho-syntax and of the interfaces"
Research activities: The research activity is focused on theoretical formal linguistics and on the experimental study of language acquisition, inspired and guided by theoretical models. The experimental part will bear, in particular, on the development of the morpho-syntax of Italian and the romance and germanic languages. Coherently with the research projects of DISPOC within cognitive studies, the research activity will be conducted in the framework of the studies on the cartography of syntactic structures and on the interfaces with systems of sound and meaning, and will use the methodologies of theoretical and experimental linguistics. The didactic charge will be of 12 CFU in total, and will include the teaching of courses of linguistics, language acquisition and psycholinguistics, in Italian and in English
Hours of classroom teaching each academic year: no less than 72 hours
Foreign requested language: ENGLISH - Level of proficiency: Excellent, fully adequate to hold lessons in English
Preferential titles: - Doctoral degree in linguistics or cognitive science; - "Abilitazione Scientifica Nazionale" to Associate Professor in the SSD L-LIN/01; - teaching experience in "laurea triennale" and "laurea magistrale"; - research experience in Italy and abroad; - participation in national and international research projects in the domains of formal linguistics and language acquisition; - in-depth knowledge of the interdisciplinary aspects in the study of acquisition, with special reference to the methodologies of psycholinguistics and experimental psychology, also in view of strengthening interdisciplinary collaborations on the analysis of language in the Department.
Maximum of scientific publications:15

DEPARTMENT OF SCIENZE SOCIALI POLITICHE E COGNITIVE

<u>n. 1 POSITION</u>
Academic recruitment field: 14/C1 GENERAL SOCIOLOGY Academic discipline: SPS/07 GENERAL SOCIOLOGY
Research Project: "Analysis of Processes of Social Cohesion, with a focus on social services, migration dynamics and social inclusion"
Research activities: The research activity will be focused on issues concerning the analysis of social cohesion processes, with particular regard to social services, inclusion and migration dynamics. Such a research effort will be carried out in a comparative perspective, with a particular focus on the observable effects and applicability of models to the local level. Coherently with the research projects active at DISPOC and with related teaching activities, the sociological perspective to integration processes and vulnerability risks will be applied, relying on both qualitative and quantitative methods. The appointed researcher will have teaching duties for no less than 9 CFU, teaching courses in the relevant scientific fields (SSD) of the program in social work (Scienze del servizio sociale).



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Hours of classroom teaching each academic year: no less than 60 hours
Foreign requested language: ENGLISH - Level of proficiency: as declared in their academic qualifications
Preferential titles: <ul style="list-style-type: none">- Ph.D in Sociology or Social Work- Teaching experience in Laurea Triennale and Laurea Magistrale- Research experience in Italy and abroad- Participation in research and applied projects in the field of social policy, immigration and integration policy
Maximum of scientific publications: 12

DEPARTMENT OF ECONOMIA POLITICA E STATISTICA

<u>n. 1 POSITION</u>
Academic recruitment field: 13/D4 MATHEMATICAL METHODS OF ECONOMICS, FINANCE AND ACTUARIAL SCIENCES
Academic discipline: SECS-S/06 MATHEMATICAL METHODS OF ECONOMICS, FINANCE AND ACTUARIAL SCIENCES
Research Project: "Quantitative/Mathematical Finance"
Research activities: The research will be conducted on issues and topics of financial economics (general category G of the JEL classification), with qualifying use of quantitative methods and techniques
Hours of classroom teaching each academic year: Financial Mathematics course (60 hours English language) or other teaching Italian language, depending on the teaching needs, on financial issues
Foreign requested language: ENGLISH - Level of proficiency: Excellent
Preferential titles: PhD in prominent institutions, teaching experience
Maximum of scientific publications: 12

DEPARTMENT OF ECONOMIA POLITICA E STATISTICA

<u>n. 1 POSITION</u>
Academic recruitment field: 13/A5 – ECONOMETRICS
Academic discipline: SECS-P/05 – ECONOMETRICS
Research Project: "Mathematical and probabilistic methods for theoretical and applied economics"
Research activities: The main field of analysis is theoretical and applied econometrics. Topics for investigation include econometric methods, behavioural choices of individual and institutions, evaluation of economic policies, risk and efficiency analysis, and long run processes in economics
Hours of classroom teaching each academic year: Econometrics course (60 hours)
Foreign requested language: ENGLISH - Level of proficiency: Excellent
Preferential titles: PhD in prominent institutions, teaching experience and ability to program econometrics softwares
Maximum of scientific publications: 12



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DEPARTMENT OF SCIENZE MEDICHE, CHIRURGICHE E NEUROSCIENZE

n. 1 POSITION

Academic recruitment field: 06/E2 PLASTIC AND PAEDIATRIC SURGERY AND UROLOGY

Academic discipline: MED/20 - PAEDIATRIC SURGERY

Research Project: "Thoracoscopy in children: evaluation of feasibility and applications in pediatric and neonatal surgery"

Research activities:

Over the past two decades there has been an exponential growth in the use of thoracoscopy in children. Indeed, many advanced procedures, including lobectomy, repair of tracheoesophageal fistula, excision of mediastinal tumors, and diaphragmatic hernia repairs, can now be performed by this means in advanced paediatric surgical centers in the world. There is solid evidence supporting its safety and applicability in routine clinical use. More prospective studies are required to determine whether it offers genuine advantages over traditional open surgery. The aim of this study was to examine the incidence of thoracoscopic complications and conversions in order to better understand what is the current trend of pediatric thoracic surgery in department with a different training experience

Hours of classroom teaching each academic year: 60 hours

Foreign requested language: ENGLISH - Level of proficiency: C

Preferential titles:

Certificate of Pediatric Surgery

Tutor's activity of trainers in pediatric surgery

Lecturer of Pediatric Surgery

Scientific experience about topics of project

Experiences in research activities about topics of project in some Universities

Maximum of scientific publications: 12

Relief activities: With assistance activities within the National Health Service

DEPARTMENT OF SCIENZE MEDICHE, CHIRURGICHE E NEUROSCIENZE

n. 1 POSITION

Academic recruitment field: 06/D4 - SKIN, INFECTIOUS AND GASTROINTESTINAL DISEASES

Academic discipline: MED/35 - DERMATOLOGY AND VENEREAL DISEASES

Research Project: "Development of the applications of non-invasive diagnostic methods in dermatology"

Research activities:

The research activities of the Scientific area (SSD) MED / 35 at the Department of Medical and Surgical Sciences and Neuroscience are centered on the study of non-invasive imaging diagnostic methods in dermatology. The research will focus on developing new clinical applications of non-invasive diagnostic techniques with particular attention to neoplastic, infectious and inflammatory skin, mucous and semi-mucous membranes diseases. The research activity requires skills in the field of dermoscopy and in the field of new "imaging" techniques dedicated to the skin and mucous membranes such as confocal microscopy, optical coherence tomography, Raman spectroscopy, etc. It also requires knowledge in dermatopathology and in the analysis of digital images

Hours of classroom teaching each academic year: 60 hours

Foreign requested language: ENGLISH - Level of proficiency: Excellent

Preferential titles:

Post-graduate degree in Dermatology and Venereology;



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Achievement of at least two of the three medians indicated by the ASN for the disciplinary sector;
Documented activity of supervisor of dermatology residents and medical students;
Teaching activity at University;
Documented scientific expertise in the field described by the competition announcement
Experience in the research activities in the field described by the competition announcement in different universities

Maximum of scientific publications: 15

Relief activities: With assistance activities within the National Health Service

ADMISSION REQUIREMENTS

Applications for the comparative selection procedure (art. 1) are accepted from:

- candidates holding a PhD or equivalent completed in Italy or abroad;
- candidates holding a Diploma of Medical Specialization in the relevant area(s). Preference will be given to those in possession of a PhD or equivalent;
- candidates who have held contracts pursuant to art. 24, parag. 3, letter a) of Law 240/2010 (junior research associate) for at least three (even non-consecutive) years, research grants pursuant to art. 51, parag. 6 of Law 449/97 as subsequently amended, research grants pursuant to art. 22 of Law 240/2010, post-doctoral bursaries pursuant to art. 4 of Law 398/89, or equivalent contracts, grants or bursaries from foreign universities, or contracts stipulated for at least three years pursuant to art. 1, parag. 14, of Law 230/2005.

Applications are also accepted from non-EU citizens who meet the admission requirements stated above.

Academic qualifications obtained abroad must normally be recognized in Italy pursuant to current applicable legislation (further information is available on the website of the Ministry of Education, University and Research: www.miur.it)

Candidates must be in possession of the requirements for admission to the selection procedure by the deadline of this call.

All candidates are admitted to the selection procedure conditionally, reserving the right to verify that they meet the requirements for admission to the selection procedure. The administration can, at any time and with justifiable reason, exclude candidates who fail to meet the selection requirements.

Applications cannot be accepted from the following people: retired or currently employed full or associate University professors or researchers; those who have a relationship of consanguinity or affinity up to and including the fourth degree with a professor employed at the Department proposing the activation of the contract, or with the Rector, the Registrar or a member of the University Council.

Application Procedure

Applications for admission to the procedures and the documents indicated below must be lodged by certified email to rettore@pec.unisipec.it or email to concorsi@unisi.it within 30 days starting the day after the publication of this call in the *Gazzetta Ufficiale della Repubblica Italiana*.

Proof of receipt will be considered as: for applications sent by certified email (PEC) rettore@pec.unisipec.it - the date of the delivery receipt sent automatically by the system; for those sent by email: concorsi@unisi.it, the date of the University terminal that receives them. The University administration declines any responsibility for non-receipt of applications due to third party liability. To check whether an application has been received and is deemed complete, candidates can contact the University's *Servizio Concorsi e Procedimenti Elettorali* (tel. + 39 0577 235060 - 235058 - 235059). Applications must be accompanied by a copy of the candidate's identity document under art. 38 of Presidential Decree no. 445 of 28 December 2000.

Applications must be compiled according the enclosed model (Annex A), providing all the information required.



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Candidates must enclose with the application:

- scientific publications;
- a signed curriculum vitae
- Declaration in lieu of certification (Annex B)
- copy of the candidate's identity document.

EXAMINING COMMISSION

The Examining Commission is composed of three full professors or researchers (including one from outside the University of Siena) belonging to the academic recruitment field or to a academic discipline in the same group of academic recruitment fields.

Prior to the start of the selection, the candidate must declare under his/her own responsibility, pursuant to article 7 of the University Code of Ethics, that he/she does not have a relationship of consanguinity or affinity up to and including the fourth degree with any member of the Committee, and that the Committee does not include his/her spouse or partner or any persons with whom he/she has business relations.

EVALUATION OF QUALIFICATIONS, PUBLIC INTERVIEW AND ORAL EXAM

Prior to the start of the selection, the candidate must declare under his/her own responsibility, pursuant to article 7 of the University Code of Ethics, that he/she does not have a relationship of consanguinity or affinity up to and including the fourth degree with any member of the Committee, and that the Committee does not include his/her spouse or partner or any persons with whom he/she has business relations

The selection is made by through a preliminary evaluation of candidates and a reasoned analytical judgment of their academic qualifications, curriculum and scientific productivity, including their doctoral thesis, if applicable, based on the criteria and parameters specified in Ministerial Decree 243 dated 25.05.2011.

Following the preliminary evaluation, the top 10 to 20 per cent of the most merit-worthy candidates, and in any case no less than six, will be admitted to a public interview with the Commission concerning their qualifications and scientific work. If only six or less candidates apply, all of them will be admitted to the interview.

On the same occasion as the interview, candidates will be required to take an oral exam in a foreign language, to ascertain their proficiency, as declared in their academic qualifications. Candidates who do not pass the oral exam are not considered eligible.

Following the interview, a score is given to the qualifications and each publication presented by the candidates who have passed the oral exam, according to criteria established in advance by the Commission itself.

The Commission writes up a report at the end of each individual meeting.

A notice inviting candidates for the interview and oral exam will be sent to the individual candidates at least fifteen days before the date of the interview and exam. This notice need not be given fifteen days in advance if all candidates admitted to the selection provide their explicit written consent.

Candidates must bring their identity document.

EU nationals must bring their passport or identity document issued by their country of origin. Candidates from non-EU countries must only bring their passport.

RANKING LIST AND PROPOSAL OF EMPLOYMENT

Upon completion of the selection procedure, the Commission draws up a ranking list of eligible candidates. This list is valid for two years.



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CONTRACT AND ACTIVITIES

The successful candidate will be offered an individual, non-renewable three-year, fixed-term contract of employment regulated by the provisions in force concerning salaried employment, also in relation to tax, healthcare and social security contributions applicable to income from employment.

The University will pay for insurance against accidents and third party liability.

The total annual commitment to teaching, supplementary teaching and student support is equivalent to 350 hours; for the purposes of reporting on the research project, the research, supplementary teaching and student support together are figuratively equal to 1500 each year.

In the case of public funding, the contract will be terminated should the funding not be received. The trial period lasts three months.

INCOMPATIBILITY AND OTHER COMMITMENTS

The research contract is not compatible with the following:

- any other contract of employment with a public or private body;
- research grants from other Universities;
- teaching contracts regulated by the relevant provisions in force;
- doctoral or post-doctoral research grants or, in general, any grant or scholarship for any purpose awarded by the University or any third party;

PUBLICATION

This call and the summary in English are published on the University's Albo on line, on the web page at the following address: <http://www.unisi.it/ateneo/concorsi>, on the website of the Ministry for Education, University and Research (www.miur.it) and on the European Union portal (<http://ec.europa.eu/euraxess/>).

Siena, 17 LUG 2016

The Registrar
Marco Tomasi



Procedure manager
Maria Bruni