9th EDITION - CALL FOR SELECTION OF N. 12 VERA INTERNSHIP GRANTS AT THE DEPARTMENT OF ECONOMICS - A.A 2022/2023, WITHIN THE PROJECT OF EXCELLENCE 2023-2027

Art. 1 – Scope

1.1 The Department of Economics, within new project of the Department of Excellence 2023-2027 – "Venice Initiative on Vulnerability Analysis", offers students enrolled in its Master's Degree Courses the VERA Academy internship projects, to promote the development of professional and research skills useful for their orientation and subsequent labor market integration.

1.2 Twelve grants are available. The maximum duration of the internship periods will be 4 months and a commitment of about 300 hours that will be agreed with the tutor of the project. The internships will take place between June and November 2023. The total funding for each internship will be € 1.843,31 (gross salary). Each internship project, including specific objectives, required knowledge and skills as well as the intern tutors, is described in Annex A, which is an integral part of this call.

1.3 The internship will take place at the Department of Economics according to the Ca' Foscari internships guidelines.

1.4 On request of the student, the internship activity can be validated as the compulsory internship to acquire university credits planned in the Department of Economics Master's degree program to which the student is enrolled.

Art. 2 – Admission requirements

2.1 The call is reserved for students regularly enrolled in the Department of Economics Master's Degree Courses.

2.2 If students already receive a grant economically incompatible with the grant of the present call, they can apply and, if the merit requirements are met, they can decide to carry out the internship project renouncing the grant.
The total numbers of internships cannot exceed 14 (maximum of 12 with grants and maximum of 2 without grants), therefore the acceptance of internship applications "without grant" should be subject to the compliance of such limits.

2.3 The requirements must be met by the deadline indicated in the following art.3.

Art. 3 – Applications

3.1 Applications must be submitted no later than **May 30th, 2023 at 12.00** by filling the online form at the page: https://apps.unive.it/domandeconcorso-en/accesso/2023-dec-veraacademy-01

3.2 When filling the application in, candidates can indicate up to a maximum of three internship projects.

3.3 The application form must include the following documents:
- Dated and signed Curriculum vitae
- Self-certifications of enrollment with exams and relative grades, both at bachelor and master level, duly signed.
- Motivation letter, using the form attached to this call (the motivation letter must highligh the student's interests, the coherence between academic background and the activities and objectives relative to each of the internship projects indicated in the application, as well as the preferential qualifications/skills and knowledge required for each project. See Annex A).
- Scanned copy of a valid ID document.

3.4 Applications that are not accompanied by all the required documentation, applications which i) do not indicate the internship projects for which the candidate is applying, ii) indicate a number of internship project beyond the maximum allowed, iii) do not rank the internship projects indicated, and applications submitted after the deadline or through other procedures, will not be considered.

3.5 The University is not responsible for any failure to receive communications due to incorrect or incomplete indication of address by the applicant or to the lack of or the untimely communication of change of address, as well as possible postal failures not attributable to the fault of the administration itself.

Art. 4 – Commission and selection of applicants
4.1 A commission, composed by prof. Luca Di Corato, prof. Michele Costola, dr. Andrea Albarea, will evaluate the candidates on the basis of their qualifications and motivation letters.

4.2 In a preliminary session, the Commission will define the evaluation criteria and the scoring rules for the professional and academic curriculum vitae and for the motivation letter, as well as the minimum threshold for grant eligibility.

4.3 The ranking list will be formulated on the basis of the following criteria:
- weighted average exam marks – GPA ;
- numbers of University credits (*CFU, Crediti Formativi Universitari*);
- evaluation of the Curriculum Vitae;
- evaluation of the motivation letter: the coherence between the academic background and the activities and objectives of the project, as well as preferential qualifications/skills and knowledge required for the project (See Annex A).

4.4 Applications from candidates that were beneficiaries of the VERA grant in the previous calls will be accepted but in the selection procedure priority will be given to candidates that never received the VERA grant.

4.3 The following applications will be excluded from evaluation:
- Applications which do not comply with the admission requirements of the announcement
- Applications which do not comply with the instructions indicated in art.3

Art. 5 –Ranking list
5.1 At the end of the evaluation process, the Commission will draw up a ranking list in order of decreasing scores of each candidate.

5.2 The ranking list will be published on the web site of the Department of Economics at the following web address www.unive.it/vera, Vera Academy section, after June 9th, 2023.

Art. 6 - Assignment of grants
6.1 At the end of the evaluation process, the Secretariat of the Department of Economics will notify the selected candidates, communicating the starting date of the internship grant.

6.2 The Winners will have to send their acceptance (via e-mail to the following address: centro.vera@unive.it) within 5 days from notification. If a candidate turns down a grant, it will be assigned to the candidate ranked next.

6.3 Grants will be paid in one single instalment at the end of the internship after the submission of the final report approved by the academic tutor.

Art. 7 – Obligations for winners
7.1 Winning students, with the support of the "company" and academic tutors, must, as a condition of the grant, agree to carry out the approved procedures to set up their internship, to prepare training projects and all the related administrative procedures.

Art 8 – Incompatibility
8.1 The present grant can be received in conjunction with any other grants except in case of express incompatibility specified by applicable law, Regulations of the University and other specific calls in which the candidates participated (See Art. 2.2)

Art. 9 – Cross-reference
9.1 For any relevant matters not mentioned in the call, reference is made to the current University Regulation for the assignment of grants, study awards and incentives to students to sustain enrollment for courses and other specific learning activities.

Art. 10 – Person in charge of the procedure
10.1 The person in charge of the selection procedure, within Law n.241/1990, is the Secretary of the Department of Economics, Ing. Silvia Lovatti. For further information concerning the selection procedure, please send an e-mail to centro.vera@unive.it

Art.11 – Processing and protection of personal data
11.1. Personal data sent by the candidates with the application forms will be processed according to national and European legislation (Italian Legislative Decree n. 196/2003 and Regulation EU 2016/679). For further information https://www.unive.it/pag/36610/ .

Department Director
Prof. Michele Bernasconi

Person in charge of the procedure
Ing. Silvia Lovatti

ANNEX A

Code 1	internship project	**STUDY OF THE EFFECTS OF THE CORONA-VIRUS ON WORKING ARRANGEMENTS (ALSO BETWEEN GENDERS) MAKING USE OF OCCUPATIONAL CODING**
	Activity details	Supporting research on the effects of the Corona-virus pandemic for Europeans on working-from-home (or losing the job) in relation to occupational characteristics coded according to ISCO-codes, on microdata making use of econometric models. Contribution to writing a report on the research also focusing on gender differences
	Tutor	Agar Brugiavini, Elena Raluca Buia, Irene Ferrari
	Positions	2
	Requirements	Familiarity with programming languages (preferably STATA but also other languages) and with quantitative analysis in general
	Starting date	June 2023
	Further information	One of the two assignees will also deal with aspects relating to "financial education" and "health education" which can affect the main outcomes as described above.

Code 2	internship project	**MACHINE LEARNING FOR THE ANALYSIS OF FINANCIAL TEXTUAL DOCUMENTS**
	Activity details	In the financial industry, the information contained in textual documents (e.g., company reports, government and authority documents, financial providers' news) is often overlooked. Especially in the last two decades, there has been a fruitful development of machine learning-based tools for extracting knowledge from documents. Among the main tools are neural language models, pre-trained language models, and large language models. That said, the scholarship holder will have to: 1. To carry out a bibliographic research on the Machine Learning-based models used in the analysis of financial textual documents; 2. To collaborate in the development of one of these models, with specific reference to the reality of the Italian financial markets; 3. To implement in the Matlab environment, or similar, the developed model for the analysis of real textual documents; 4. To apply the software code so developed to the documents from different companies and possibly to provide a comparison among the results
	Tutor	Marco Corazza, Michele Costola
	Positions	1
	Requirements	Having passed with a good assessment at least one exam in which data management and/or data processing techniques have been studied, such as in statistics, econometrics or machine learning; Being familiar with programming and the use of software environments such as Matlab, Python or R; Having a basic understanding of webscraping techniques for data extraction from online sources. Being familiar with financial textual documents.
	Starting date	June 2023

Code 3	internship project	**MARRIAGE STABILITY, HEALTH AND CARE IN OLD AGE**
	Activity details	The fellow will carry out some descriptive and regression analyses on SHARE (Survey of Health, Ageing and Retirement in Europe) data. The task is to assist proponents in the first phase of a study that aims to identify the causal effect of marital status on the health of the elderly, their care needs and willingness to care for relatives or friends. The work of data arrangement and analysis will be done with STATA software. At least a basic knowledge of the software is therefore preferable. The research carried out within the fellowship might be exploited, at least partially, to write the Master thesis.
	Tutor	Danilo Cavapozzi, Giacomo Pasini
	Positions	1
	Requirements	Basic knowledge of STATA
	Starting date	June 2023

Code 4	internship project	**DEMAND AND SUPPLY OF LOCAL SERVICES FOR OLDER PEOPLE: REGIONAL DISPARITIES IN ITALY**
	Activity details	The research project aims at documenting and monitoring the supply and demand of local services for older individuals in Italy (for example the presence of long term care services), with a specific focus on the regional disparities. The research assistant will provide support on a systematic literature review and a preliminary analysis of administrative data (ISTAT) and/or survey questionnaires modules relevant to empirical analysis
	Tutor	Francesco Moscone
	Positions	1
	Requirements	Good knowledge of the English and Italian languages. Knowledge of Excel and STATA software
	Starting date	June 2023

Code 5	internship project	**THE EFFECTS OF ART BONUS ON THE CULTURAL SUPPLY IN ITALY**
	Activity details	The student assistant will collaborate in the research project through a review of the legal framework regulating the liberal donations to the cultural sector (Art Bonus and previous interventions). In addition, the assistant will collaborate in the design of a dataset concerning the "Fondazioni Lirico-sinfoniche" containing the different sources of private and public funding, their use, and other variables of interest. The dataset will be compiled using information obtained both from the web (Art Bonus website) and from the annual reports of the Italian court of Auditors
	Tutor	Andrea Baldin
	Positions	1
	Requirements	Knowledge of Excel and of the Italian launguage; preferable knowledge of web scraping techniques
	Starting date	September 2023

Code 6	internship project	**ESG and SMEs**
	Activity details	It is increasingly evident that in order to evaluate a company's ability to create value, generate opportunities and reduce exposure to risk, it is necessary to take into account both economic-financial factors and ESG performance. The aim of this research is to analyze this phenomenon in the context of the specificities of SMEs with specific focus on the Environmental dimension. The drafting of a final report is required, which presents and discusses the methodologies used and the results obtained.
	Tutor	Diana Barro
	Positions	2
	Requirements	Exams in Mathematics, Statistics, Econometrics. Competencies in statistical data analysis, and quantitative methods
	Starting date	June to September 2023

Code 7	internship project	**MEASURING UNCERTAINTY IN ITALIAN MANUFACTURING FIRMS**
	Activity details	Firms rely heavily on their expectations and perceptions of future business conditions when making important decisions such as investment, employment, and capacity utilization. However, the formation mechanisms for these expectations are not well understood, and there is no consensus on how to measure the associated uncertainty. The project seeks to contribute to the existing literature by analysing data from a survey of Italian manufacturing firms conducted annually by the Bank of Italy. The aim is to analyse the process of firm-level expectation formation and introduce a measure of self-reported uncertainty
	Tutor	Roberto Casarin, Michele Costola
	Positions	1
	Requirements	Having passed the exam in Econometrics or in courses related to Statistics and Machine Learning; Familiarity with the STATA programming language; Familiarity with database management. Preferrable: Knowledge of other programming languages such as MATLAB, Python, R or Julia
	Starting date	September 2023

Code 8	internship project	**MITIGATING CLIMATE CHANGE THROUGH COASTAL ECOSYSTEM MANAGEMENT**
	Activity details	The research fellow will be asked to carry out a review of the economic literature on the topic of blue carbon credits, that is, the credits in terms of carbon emissions generated through the development of projects for the conservation and restoration of coastal and marine ecosystems. The review will include papers presenting a mathematical modelling of the process and/or an empirical evaluation. It is also expected a review of the current framework regulating the issuance of credits. The final research output will be i) a report that presents with an adequate level of synthesis the state of the art of the literature above and discusses the main results obtained and ii) a report illustrating the current regulatory framework for the issuance of credits
	Tutor	Luca Di Corato
	Positions	1
	Requirements	The research assistant will read scientific articles that propose a mathematical modelling of the process and/or an empirical evaluation. The following background is essential: i) solid preparation, at master's level, in Economics, ii) excellent knowledge of the English language (in particular with regard to reading and comprehension) and iii) synthesis and aptitude toward critical analysis.
	Starting date	September 2023

Code 9	internship project	**AVAILABILITY OF HIGHER EDUCATION, FIRMS' PERFORMANCES AND WORKFORCE COMPOSITION**
	Activity details	The research project aims at analysing the relationship between tertiary education, firms' performances and workforce composition, and workers' wellbeing, in the Italian context and with a specific focus on the gender disparities. The research assistant will provide support with respect to a systematic literature review and analysis of appropriate survey questionnaires modules relevant to empirical analysis. The research assistant will also conduct a preliminary analysis on the survey data
	Tutor	Ylenia Brilli, Gloria Moroni
	Positions	1
	Requirements	Good knowledge of the English and Italian languages. Knowledge of Excel and STATA software. Knowledge of the software Python is not a pre-requisite but is positively assessed
	Starting date	June 2023

Code 10	internship project	**PATTERN RECOGNITION IN TECHNICAL ANALYSIS: AN ARTIFICIAL INTELLIGENCE BASED APPROACH**
	Activity details	The main goal of the internship is the study and the application of pattern recognition techniques to financial time series in order to identify some graphic configurations known in the literature and widely used by practitioners. The definition of appropriate templates allows us to identify some graphic heuristics in the time series and allow us to build a library of configurations among which to search for the most suitable. The internship activity is organized into the following phases: 1. Review of literature on technical analysis and AI applied to pattern recognition problem; 2. Design of an AI-based pattern recognition system to identify the most plausible graphic configuration; 3. Implementation of the previous point using R or Python software. The internship requires the preparation of the R or python code of the proposed algorithms and the drafting of a final document containing an empirical analysis
	Tutor	Claudio Pizzi
	Positions	1
	Requirements	skill on R and/or Python; basic knowlodge on technical analysis
	Starting date	June 2023

Code 11	internship project	**POVERTY AND INEQUALITY: THE BASIC INCOME IMPACT**
	Activity details	In 2019 the so-called citizenship income was introduced in Italy. The main aim of that subsidy was to combat poverty and reduce socio-economic inequalities, providing people with the necessary resources to meet their basic needs, as food, accommodation and health care. The internship will involve an activity aimed at identifying one or more one-dimensional and/or multidimensional indicators suitable for measuring poverty in order to analyze the impact that this subsidy has had both during and after the pandemic. The internship project includes the following steps: 1. Literature review on the measure of poverty and the impact of subsidies on poverty; 2. a comparative analysis of the poverty measurement indices suggested in the literature; 3. Analysis of poverty trends (absolute and relative) during the period before and after the introduction of citizenship income; 4. Implementation of software (R or Python) for measurement and analysis as described above
	Tutor	Claudio Pizzi
	Positions	1
	Requirements	skill on R and/or Python
	Starting date	June 2023

Code 12	internship project	**BANKRUPTCY PREDICTION FOR SMALL AND MEDIUM SIZED COMPANIES USING SINGLE-CLASS CLASSIFICATION METHODS**
	Activity details	Preventing SMEs default, financing most promising firms and sustaining them in difficult times means protecting 99% of all enterprises in the EU, as well as the largest part of the European value added and jobs (56.4% and 66.6% respectively, European Commission (2019)). Therefore, it is of a great importance for financial intermediaries, EU institutions, single governments, SMEs themselves and Large firms which also rely on SMEs work. The benchmark models for bankruptcy prediction are Two-classes classification models, both traditional, such as Logistic Regression, and machine learning such as Random Forest or Support Vector Machines. The goal of this project is to apply instead single-class classification models to predict SMEs bankruptcy, then benchmarking results with those of the most successful two-classes models. The single-class approach seems promising to tackle the problem of the imbalance between bankrupt and non-bankrupt companies. Outline of work: Carry out a comprehensive bibliographic research on single-class classification models as well as about the most recent developments in SMEs default prediction; Create a large dataset of balance sheets downloaded from Bureau Van Dijk databases; Use the available libraries in R for applying single-class models to predict defaulted firms within the collected data;Compare the classification rates, the significance and relevance of the coefficients with the most performing two-classes models outcomes; Contextualize the results within the relevant literature
	Tutor	Lisa Crosato

Positions	1	
Requirements	Having a solid background in data management, statistics/ econometrics or data analysis and preferably having passed an exam of accounting/ financial statement analysis. Being familiar with programming in R. Being familiar with data download from specialized providers and with their management and processing. Very good knowledge of the English Language	
Starting date	June to September 2023	

Code 13	internship project	**PRODUCTIVITY, SUSTAINABILITY AND RENEWABLE ENERGY IN AGRICULTURE**
	Activity details	The recognition of the strategic objectives of food security, energy security and environmental protection as of global interest has led to an increase in the interest of public and private institutions in the agricultural sector. In order to be practiced, however, agricultural activity must guarantee a fair income for farmers, increasing their competitiveness while respecting environmental protection. Fair income can be achieved on the one hand by adopting models that are more respectful of the environment from the point of view of practices adopted and consumption of renewable energies and, on the other hand, by adopting models that provide income supplementation such as the production of agro-energy which, especially in periods of stagnation or reduction in commodity prices, can prevent abandonment. The research assistance activity will follow the following phases: 1. Bibliographic collection of the various concepts of productivity in agriculture and updating of the bibliography previously collected on renewable energy in agriculture. 2. Critical analysis of the methods used in the literature to measure productivity in agriculture. 3. Identification of the most appropriate method of analysis to extend the measure of productivity to the effect of agricultural activity on the environment. 4. Empirical application of the productivity measure, see point 3, to a comparison between OECD countries
	Tutor	Antonella Basso, M. Bruna Zolin
	Positions	1
	Requirements	Having passed the following exams: 1. An exam of advanced statistics or econometrics at second degree level; 2. An exam of advanced quantitative methods for economics or finance at second degree level; 3. An exam among the following: Commodity Markets, International Trade of Commodities, Economics of Rural Development, Economia e Gestione dell'Azienda Agraria e Agroindustriale. Advanced knowledge of Excel (including the use of filters, tables and graphs) and familiarity with R or Python or Stata or Matlab
	Starting date	July 2023

Code 14	internship project	**NATURAL RESOURCES, TERRITORIAL SUSTAINABILITY AND CIRCULAR ECONOMY: METHODS FOR MEASURING THE CIRCULAR ECONOMY ON REGIONAL BASIS**
	Activity details	Reuse, recycling and repair are all opportunities to reduce resource depletion and benefit communities as a whole, given the increase in population, production costs and pollution, now of unsustainable levels. To guide and monitor an effective transition to a new approach to the economy and everything around it, an appropriate set of indicators should be used. Furthermore, the current lack of measurement systems at the regional level of Europe opens the interest towards the reconstruction of the cognitive framework at the different territorial levels through indicators (environmental, social, economic): they are necessary for identifying suitable sustainable strategies in a bottom-up perspective. The project follows on from the previous research project "Natural resources, territorial sustainability and circular economy" with particular reference to the circular economy. The research activity is developed in different steps: 1.investigation updating and analysis of the recent bibliography on natural resources and circular economy and construction of a summary scheme; 2. survey of databases and collection of existing data of natural resources in different territorial areas; 3.analysis of the methodologies and indicators proposed in the literature; 4. identification of new methods for processing the collected data and application hypotheses
	Tutor	Paola Ferretti, M. Bruna Zolin
	Positions	1

	Requirements	Have passed at least one of the exams of the list: Optimization, Econometrics, Nonlinear Models and Financial Econometrics and at least one of the exams of the list: Commodity Markets, International Trade of Commodities, Economics of Rural Development. Advanced knowledge of Excel or knowledge of R/Matlab language and of territorial or primary sector issues
	Starting date	June 2023

Code 15	internship project	**DIVERSIFICATION STRATEGIES IN THE INTERNATIONAL OPENING PROCESSES OF THE ITALIAN FIRMS AND PRODUCTIVE SYSTEMS**
	Activity details	The aim of the research is to study the evolution of the processes of international openness of Italian firms over the last 10 years, using both micro-data on the import-export activities of firms, and aggregate data at county or Labor local system level (source: Istat). The main job consists of constructing indices of the international openness and entropy or diversification of firms based: : i) on the complexity (variety) of their products; ii) the geographical distribution of their markets; iii) the size distribution of firms in the local productive system. The hypothesis is that product complexity, geographical spread and size distribution are structural factors that increase firms' resilience to exogenous shocks
	Tutor	Giancarlo Corò
	Positions	1
	Requirements	Knowledge on STATA program and competence in the analysis of micro- data on large scale archives.
	Starting date	June 2023

Code 16	internship project	**STUDY OF THE IMPACT OF BOUNDED RATIONALITY AND IMPERFECT FORESIGHT ON NEOCLASSICAL MACROECONOMIC MODELS**
	Activity details	The perfect foresight assumption of the neoclassical growth serves as the natural benchmark for evaluating alternative hypotheses on expectation formation. What if a "myopic" household could only predict the short-run evolution of capital stock but not the values of the following periods ignoring the true capital law of motion. Myopia reflects household's inability to see the future despite its rational behavior and intention to optimize inter-temporal utility over an infinite horizon. As a result, rational households need to devise strategies to forecast the implications of their decisions on the future evolution of income or capital. The candidate will be required to research literature on bounded rationality in macroeconomic models, and collaborate with the instructor on the project, simulation, and analysis of these types of models. The project involves both theoretical and computational approaches. Finally, there will be room for data analysis activity on data produced by the simulations. The project is part of the PRIN program "At the frontier of agent-based modelling: a new data driven framework for policy design toward sustainable and resilient economies," funded by the Ministry of University and Research
	Tutor	Andrea Teglio
	Positions	1
	Requirements	Having passed the compulsory macroeconomics exams in the degree course. Familiarity with classical macroeconomic theory (of general equilibrium) and interest in alternative approaches. Familiarity with the logic of computer programming and data analysis
	Starting date	September 2023

Code 17	internship project	**WEATHER-LINKED FINANCIAL PRODUCTS IN THE ENERGY MARKET**
	Activity details	The candidate will perform a literature review on the topic with creation of an annotated list of contributions; research on case studies of financial products issued to hedge weather risk and specifically with reference to the energy markets; Collection of data available for Weather-linked products in the energy market. A final report, where methods and results are discussed, is part of the research output.
	Tutor	Diana Barro
	Positions	1
	Requirements	Exams in Mathematics, Statistics, Econometrics. Competencies in statistical data analysis, and quantitative methods
	Starting date	June to September 2023

Code 18	internship project	**INNOVATIVE PROFILES OF FINANCIAL ADVICE**
	Activity details	The candidate will deepen one or more profiles of interest in the field of financial advice. Modern financial advice is divided into different dimensions, financial, legal, quantitative, insurance. The candidate will be able to deepen the study by choosing to focus attention on the dimension that interests him most, with particular regard to the most innovative aspects of the subject, connected with the evolution of markets and financial instruments
	Tutor	Antonella Basso , Alberto Urbani
	Positions	3
	Requirements	Reserved to students enrolled at Economia e Finanza or Economics, Finance and Sustainability. Basic knowled of both Italian and English Language
	Starting date	July to September 2023
	Further information	Internships funded by Assoreti agreement