



**CALL FOR APPLICATIONS FOR ADMITTANCE TO CA' FOSCARI UNIVERSITY OF VENICE
PROFESSIONAL MASTER'S PROGRAMMES
A/Y 2023/2024**

Art. 1 - Call for Applications

1. This Call for Applications governs admission to the 1st and 2nd Level Professional Master's Programmes of Ca' Foscari University of Venice for A/Y 2023/2024. The main features of the courses are listed in the attached profiles, which form an integral part of this document.
2. The offer of 1st and 2nd Level Professional Master's Programmes is divided into two types: "Post Lauream" Master's and "Executive" Master's:
 - a. "Post Lauream" Master's means any Master's which integrates academic work with vocational content in order to help graduates take their first steps in the world of work.
 - b. "Executive" Master's means any Master's with typically more vocational content, aimed at graduates who have already entered the world of work and require more targeted, specialised training.
3. The Professional Master's Programmes for A/Y 2023/2024 are currently as follows:

1st level - Post Lauream

- 1) Administration and Management of Wildlife
- 2) Intercultural Communication
- 3) Environmental and Land Law
- 4) Employment and Social Security Law
- 5) Tourism Economics and Management
- 6) Inclusive and Accessible Face-to-Face and Distance Language Education
- 7) Philosophy and History of Science and Technology
- 8) Luxury, Client Advisory and Store Management (Master's Programme profile in development)
- 9) Sustainability Management
- 10) Mobility Innovation and Management
- 11) Strategies and Marketing for Food and Wine Companies
- 12) Strategies for Sports Businesses (Master's Programme profile in development)
- 13) Water Resources Protection and Management

1st level - Executive

- 14) Teaching Foreign Languages
- 15) Teaching and Promotion of Italian Language and Culture to Foreigners (ITALS)
- 16) International Business Law, Arbitration and Tax Law

- 17) Fine Arts in Filmmaking
- 18) Global Economics and Social Affairs
- 19) Manager's Development Program
- 20) Quantum Machine Learning
- 21) Science and Techniques of Prevention and Safety – HSE



22) Yoga Studies. Body and Meditation in Asian Traditions

2nd level - Post Lauream

23) Philosophical Consultancy

24) International Master in Economics, Finance and Data Science

25) Health Economics and Management

26) Management of Cultural Heritage and Activities

27) Welfare and Third Sector Management

28) Risk Management, Internal Audit & Cybersecurity

29) Science and Management of Climate Change

2nd level - Executive

30) Teaching Spanish as a Foreign Language

31) Geopolitics and Economic Affairs

32) Illicit Trafficking in Cultural Property. A Global Approach to a Global Challenge

33) Port City School Venezia – For Port City Policies and Governance

34) Advanced Planning for Teaching Italian Language and Culture to Foreigners

35) Public Administration

36) Sustainable Remediation of the Environment and Reclamation of Contaminated Sites

37) Innovation Strategy

38) Strategic Studies and International Security

4. A Master's Programme will only be activated if the minimum number of enrolled students for each course is reached. For this purpose, students are considered enrolled once they have fully paid their enrolment fees. In the event that a Professional Master's Programme is not activated, any enrolment fees already paid will be fully refunded.

Art. 2 - Admission requirements

1. To enrol in a 1st level Master's Programme, candidates must hold at least one of the following university qualifications: university diploma, old system undergraduate degree, degree, 1st level university diploma.
2. To enrol in a 2nd level Professional Master's Programme, candidates must hold at least one of the following university qualifications: old system undergraduate degree, specialist degree, 2nd cycle degree, 2nd level university diploma.
3. Students who are about to graduate may also be admitted to Professional Master's Programmes. The application will generally be accepted provided they gain their qualification within one month from start of the course. In this case, enrolment in the Master's Programme may be finalised only after the qualification valid for admission has been awarded.
4. Simultaneous enrolment in a Master's Programme and additional university courses of study is permitted, subject to verification of compatibility, in accordance with Law No. 33 of 12 April 2022. Students who are already enrolled in university courses of study are required to report them by e-mail to the Master's and Post Lauream Department (postlauream@unive.it) when applying.

Art. 3 - Admission application

1. At risk of exclusion, the admission application must be filled in and submitted online by the deadline indicated in the individual course profiles attached.

Official responsible for procedure: Gianluca Doro



The online procedure for admittance to the selection is divided into two stages:

- a) **registration** on the University website (www.unive.it/registrazione), providing your personal data as well as details of your residence and domicile if applicable. Former students who already have access credentials to the Reserved Area do not need to register. If you have forgotten your password or it has expired, you can renew it with immediate effect at the link <https://apps.unive.it/newpass/recupera>;
- b) **access to the Reserved Area** of the www.unive.it website; there are three options depending on the candidate's status:
 - former students of the University and therefore with matriculation number and password can log in with these credentials;
 - candidates with Italian nationality, or currently residing in Italy, who do not have a matriculation number and password, must log in with their SPID. To obtain a SPID: <https://www.spid.gov.it/>;
 - applicants of a nationality other than Italian, who are not currently in Italy and do not have a matriculation number and password, may request their access credentials via the link www.unive.it/nospidaccess.
- c) **filling in the admission application** in your personal Reserved Area, click on Menu > Administration > Admission tests (former students: click on: Admission and enrolment > Enrolment for admission tests - S3), choose the type of course (1st or 2nd Level Professional Master's Programme) and finally, the course you are applying for. During the online procedure, candidates must attach the following documents in electronic format:
 - self-certification (in accordance with Italian D.P.R. No. 445 of 28/12/2000 and subsequent amendments) of the valid qualification for admission;
 - curriculum vitae;
 - photocopy of a valid ID;
 - any other documents required for admission to the chosen Master's Programme (see attached profiles).

During this stage candidates will be asked to enter only the qualification valid for admission to the chosen Master's Programme (**do not enter any higher qualification you may have**). The information required will include: type of qualification, the University which awarded the qualification, name of the course, date of award, registered grade obtained, the date you registered with the University System (SU) (namely the date when you first enrolled at an Italian University; if you do not remember the exact day, you only need to write the 1st of October of that year). In addition, the details of your high school diploma will also be requested.

The candidate may modify the information entered and/or attach/remove the attached documents even after having filled in the online application, provided that the deadline specified in the attached individual profiles has not expired. Files must be in JPEG or PDF format and must not exceed 5 MB.

2. At the end of this procedure, you will receive an email confirming submission of your application for admission to the Master's Programme.
3. The version in English can be found on the website <https://esse3.unive.it>. Click on Menu > eng > Login.
4. Payment of a non-refundable selection fee is required. This must be paid through the PagoPA system, by clicking on the "Payments" button displayed at the end of the procedure.
5. **Candidates will be excluded from selection if they fail to meet the deadline indicated for submitting the admission application. They will also be excluded if they fail to pay the selection fee (where applicable).**

Art. 4 - Selection procedure

1. The selection procedure and deadlines for each Master's are as indicated in the relative profile attached.
2. The results of the selection will be published on the University website by the date indicated in each Master's profile.
3. Publication of the results of the selection is valid for all legal notification purposes.
4. If the number of suitable candidates exceeds the maximum specified for the individual course, a classification



will be drawn up.

5. Where the candidates, including following an extension of the deadline (Art. 7), are fewer than the minimum number required for activation of the Master's Programme, no selection will be held and the Master's Programme will not be activated.

Art. 5 - Enrolment fees, subsidies and loans

1. Enrolment fees may be divided into a maximum of two instalments. The amounts and relative deadlines for payment of the instalments can be found in the individual Master's course profiles attached.
2. Enrolment fees must be paid exclusively through the PagoPA System.
3. Candidates who are selected and who will have the opportunity to have their enrolment fees paid, in whole or in part, by third parties (for example, by the companies they work for) must indicate this by e-mail to the Master's and Post Lauream Department (postlauream@unive.it) to agree on payment conditions. Under no circumstances should third parties pay using the payment ID code (IUV) found in the Reserved Area.
4. For Master's courses for which company or institutional funding may be available to partially or totally cover the enrolment fees, see the individual profiles attached.
5. Arrangements with a number of leading banks enable Ca' Foscari University of Venice to offer a further opportunity to help students with the costs of university education through special financial facilities. For further information please visit the page <http://www.unive.it/pag/8560/>.
6. Students with a recognised level of disability equal to or greater than 66% or with a recognised disability pursuant to Article 3, para. 1, of Law No. 104 of 5 February 1992 are entitled to total exemption from contributions, with the exception of stamp duty.

Art. 6 - Enrolment

1. At risk of exclusion, successful Master's applicants must pre-enrol following the specific online procedure by the deadlines indicated in the individual profiles, logging into their personal Reserved Area (see art. 3, point b) and selecting: Menu > Administration > Enrolment > Enrolment to courses with admission test (former students: select: Admission and enrolment > Enrolment - S3). During this stage candidates will be asked to upload a photograph (passport-sized, front view, clear and legible) with .jpg extension. Subsequently they must attach:
 - a) valid ID (front and back);
 - b) self-certification (in accordance with Italian D.P.R. No. 445 of 28/12/2000 and subsequent amendments) of the valid qualification for admission.
2. At the end of the enrolment procedure, the candidate must click on the "Payments" button displayed to receive instructions on payment through the PagoPA System of the first instalment and a €16.00 revenue stamp.
3. The version in English can be found on the website <https://esse3.unive.it>. Click on Menu > eng > Login.
4. At risk of exclusion, students receiving any form of study grant must proceed with payment of stamp duty and any percentage of the costs for which they are responsible within the established times.
5. **At risk of exclusion and in order to accept the place, the candidate must complete the pre-enrolment procedure and pay any fees owed within the deadline indicated in the individual Master's profiles.**
6. Enrolment will be finalised by the back office of the Master's and Post Lauream Department of the Post Lauream and Database Office within ten business days of the final deadline for enrolment. Each student will receive confirmation of the successful enrolment via email, together with new credentials (matriculation number and password) for accessing the University's IT and internet services.
7. If following the enrolment deadline spaces become available due to withdrawal by other applicants, admission may be offered to candidates in the order in which they have been ranked during the admission process.

Art. 7- Re-opening of selection

1. If the deadline for presentation of the admission applications is reached without sufficient candidates to achieve

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- the minimum number of students specified for activation of the Master's Programme, the selection procedure may be re-opened immediately.
2. At the end of the enrolment process, if the minimum number of students required for activation of the Master's as specified in the Call for Applications has not been reached, the selection procedure may be re-opened once only, without prejudicing the start of the course.
 3. At the end of the enrolment process, if the minimum number of students required for activation of the Master's has been reached, but a number of places are still available, the selection and enrolment procedure may be re-opened once only, without prejudicing the start of the course.
 4. If the Call for Applications is re-opened, when the deadline for applications is reached, further candidates will be selected and new public rankings will be drawn up.
 5. Those admitted must abide by the terms and conditions indicated in the selection in which they have taken part, at risk of exclusion from said selection.
 6. If a candidate admitted during the first selection fails to enrol within the specified deadline and the Call for Applications is re-opened, the candidate may enrol on the Master's Programme during the second selection, provided that he or she is in an eligible position in the new rankings.
 7. Activation of the Master's Programme is conditional on reaching the minimum number of enrollees indicated in the individual presentation profiles attached to this Call for Applications.

Art. 8 - Qualifications obtained abroad and rules for foreign citizens

1. Italian and foreign citizens holding qualifications obtained abroad are also eligible to submit applications for Professional Master's Programmes, provided that their qualification is equivalent to the level, nature, duration and content of the Italian academic qualification required for admission to the course. Enrolment is, however, subject to assessment of the suitability of the qualification for enrolment onto the Master's Programme.
2. In order to submit an application, as referred to in the previous art. 3, citizens holding a qualification obtained abroad must attach:
 - a) a diploma (translated into English or Italian) certifying that their qualification is equivalent to a 1st level (for access to a 1st level Master's Programme) or 2nd level (for access to a 2nd level Master's Programme) university diploma;
 - b) a certificate (translated into English or Italian) released by the competent University certifying the examinations passed (transcript of records);
 - c) a diploma supplement or, if the qualification was obtained outside the EU, a "declaration of equivalence" of the diploma, drawn up by the competent Italian diplomatic-consular representative based in the country in which the qualification was obtained;
 - d) curriculum vitae;
 - e) photocopy of a valid ID;
 - f) any documents required for admission to the chosen Master's Programme (see attached profiles).
3. For students who have not yet been awarded a qualification, it is sufficient to attach a certificate of enrolment (translated into English or Italian) for examinations, in addition to the documents specified in the previous points d) and e). During the admission phase only, students who have been awarded a qualification, but are not yet in possession of the final diploma, may attach the provisional diploma issued by the University of origin. For enrolment purposes, the documentation must, however, be as specified in paragraph 6 below.
4. Non-EU citizens residing abroad must submit the application for admission to the Master's Programme directly to the University following the procedure and within the deadline indicated in the individual profiles attached and providing the above-mentioned documents.
5. The International Office Counselling and Welcome Department will notify the competent agencies of the result of the selection for the purposes of issuing the necessary entrance visa and, where applicable, finalising the required documentation for enrolling in the Master's Programme.
6. If admitted, citizens as per paragraph 1 of this article must complete the pre-enrolment procedure within the deadlines specified, attaching:
 - a) a diploma (translated into English or Italian) certifying that their qualification is equivalent to a 1st level (for

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- access to a 1st level Master's Programme) or 2nd level (for access to a 2nd level Master's Programme) university diploma;
- b) a diploma supplement or, if the qualification was obtained outside the EU, a "declaration of equivalence" of the diploma, drawn up by the competent Italian diplomatic-consular representative based in the country in which the qualification was obtained;
 - c) copy of a valid ID;
 - d) study visa (if possessed);
 - e) residence permit (if possessed).
7. If not in possession of the documents indicated in paragraph 6, b) above, candidates admitted to the Professional Master's Programme will be provisionally enrolled on condition they submit the above-mentioned documents within the deadline for applying for the final examination; otherwise they will not be eligible to sit said examination and will not be awarded the qualification.
 8. Enrolment will be completed by the Counselling and Welcome Office. In the case of students residing in non-EU countries, enrolment will not be completed until the student has obtained an entrance visa. Students enrolled in online Professional Master's Programmes are exempted. Each student will receive confirmation of the successful enrolment via email, together with new credentials (matriculation number and password) for accessing the University's IT and internet services.
 9. The Counselling and Welcome Office will also provide support for procedures to obtain a visa, residence permit and tax code and will help the candidate settle into the University in general. The same office may also contact candidates to verify the original documents.
 10. At any time, candidates may be asked to supplement their submitted documentation in order to verify their eligibility.

Art. 9 - Attendance and withdrawal from studies

1. Attendance by enrolled students of the various didactic activities of the Professional Master's Programmes is compulsory; justified absences are only permitted within the limits of each course (see the individual profiles attached). Non-fulfilment of attendance obligations will result in exclusion from the final test and will preclude awarding of the qualification.
2. Students may apply to withdraw from their studies at any time by notice to the Master's and Post Lauream Department (postlauream@unive.it);
3. Withdrawal of students from outside the European Union invalidates the residence permit for study purposes.
4. Withdrawal from the course or exclusion does not exempt students from paying any further instalments owing. A student may be exempted from payment of the second instalment only if the request for withdrawal is presented within one month from start of the course.
5. Under no circumstances will enrolment fees already paid be refund.

Art. 10 - Issue of qualification

1. Students who have attended the didactic activities, completed the internship and passed the mid-term and final tests will be awarded the qualification of 1st or 2nd level Professional Master's and the relative diploma will be issued.
2. Students not qualifying within the sessions established in that Professional Master's Programme will be declared lapsed. Lapsed students are not exempted from paying any further instalments due.



Art. 11 - Recognition of credits

1. Following verification of the eligibility of the contents, students who enrol in undergraduate degree or second-cycle undergraduate degree programmes after having obtained a 1st or 2nd level Professional Master's qualification may be awarded university credits, substituting modules included in the degree programme.
2. The maximum number of credits (CFUs) recognised is regulated for each course and in any case cannot be higher than 60 credits for both undergraduate and second cycle undergraduate degrees. It is, however, the responsibility of the competent academic body to evaluate case-by-case the consistency of the contents of the academic activities completed in the Master's with the course for which recognition of credits is requested.

Art. 12 - Enrolment in individual modules

1. Certain Master's Programmes offer a limited number of places for students who wish to enrol for individual modules (see attached profiles).
2. To enrol for individual modules, students must meet the same requirements as those needed for eligibility for the relevant Master's Programme.
3. Enrolment can be completed by filling in the form which can be found on the University website and following the instructions. The form and related documentation may be sent by e-mail, attaching a copy of an identity document, to the Master's and Post Lauream Department (postlauream@unive.it).
4. Attendance is compulsory. Only students who have attended at least 70% of the academic activities of the individual module will be admitted to the final examination, unless otherwise indicated.
5. Students enrolled for the module who pass the final examination will be awarded a certificate stating the number of acquired credits and relative SDS (scientific disciplinary sector).
6. Enrolment for individual modules will remain open until the maximum number of participants is reached.
7. If candidates enrolled for individual modules wish to complete the course and obtain the diploma by attending future editions of the Master's Programme, the course Board of Professors will evaluate case-by-case possible exemption from attending the modules already successfully completed.

Art. 13 - Privacy

1. Pursuant to EU Regulation 2016/679 ("General Data Protection Regulation – GDPR") and relative Italian national legislation (Legislative Decree No. 196/2003 and subsequent amendments), you are informed that personal data voluntarily provided to Ca' Foscari University of Venice will be processed by said University adopting appropriate measures to guarantee its security and confidentiality, in accordance with the above Regulation.
2. The privacy notice is available at: <https://www.unive.it/pag/36550/>

Art. 14 - Final provisions

1. For all matters not expressly covered by this Call for Applications, reference should be made to the rules contained in the "Master's and Lifelong Learning University Regulations" as per Rector's Decree No. 893 of 19/10/2011 and subsequent amendments, available for consultation at: <http://www.unive.it/pag/8253/>.

Attachments: 36

- 1-36 Master's Programme Profiles
- Official responsible for procedure: Gianluca Doro



PROFESSIONAL MASTER'S PROGRAMME (2ND LEVEL) IN SCIENCE AND MANAGEMENT OF CLIMATE CHANGE

SIXTH EDITION

A.A. 2023-2024

Presentation

Climate change is one of the main challenges posing major risks to the society at large, as well as to business and industries. According to the World Economic Forum, the failure to implement effective mitigation and adaptation policies is one of the top-five economic risks for the business world.

The Master of Research in Science and Management of Climate Change is a 1-year programme aimed at preparing professional leaders capable of managing the complex and multi-faceted risks posed by climate change, as well as the opportunities that might arise.

Objectives

- Provide high-level academic training about the scientific and socio-economic aspects of climate change in a Master's programme, integrated with the PhD in Science and Management of Climate Change.
- Prepare experts with a broad and thorough scientific background in environmental economics, climate science, valuation techniques, and with specific modelling skills.
- Prepare leaders who can understand, synthesize, and communicate the biophysical and socio-economic nature of climate change, evaluate the socio-economic implications of climate change risks, and design innovative policy solutions and risk management strategies.
- Prepare experts familiar with a suite of methodological, analytical, statistical and modelling tools that make it possible to i) explain the physical and economic nature of climate change and their uncertainty, ii) assess the socio-economic impacts of climate change, their costs and benefits, iii)

estimate and manage climate change risk, iv) analyze, evaluate, and design innovative climate policy solutions, v) conceive transformational pathways in the context of sustainable development.

Sixth edition 2023-2024

Students will follow 12 courses (72 CFU). Didactical activities will consist of frontal lectures, seminars, hands-on sessions, group activities, presentation of group/individual projects. Guest lectures and seminars from international experts will be offered throughout the year.

The first term will build the foundations and will be articulated into 6 common courses: *Mathematical modelling and programming; Statistics; Introduction to programming for statistics and machine learning; Introduction to climate dynamics; Environmental and climate economics; Climate of the past.*

In the second term students will choose one of the two streams articulated in 6 courses each:

- 1- **Climate Economics and Finance:** *Decision theory and multi-criteria analysis; CGE and integrated assessment modelling of CC impacts and policies; Applied environmental economics and policy evaluation; Domestic and international climate policies; Climate finance; Energy systems and technologies.*
- 2- **Climate Modelling and Impact Assessments:** *Chemodynamics; Climate change and environmental quality; Climate modelling and monitoring; Risk assessment and decision support system for environmental impacts of climate change; Adaptive management of natural resources and agricultural systems; Climate damage modelling and assessment; Energy systems and technologies.*

All students will be offered three labs, two on *Data, Tools and Methods for Earth Sciences* (introduction and practicals) and one about *Environmental Diplomacy* for a total of 60 hours.



Foundations

Mathematical Modelling and Programming (prof. Giove)

Understanding of dynamic systems and preliminary concepts such as linear algebra, eigenvalues, complex numbers. Introduction to mathematical instruments for dynamic systems and applications to environmental problems.

Lectures will focus on theory as well as on applications through hands-on sessions.

Statistics (prof. Prosdocimi)

The course introduces the statistical methods useful to quantify changes in climate variables and the impacts of climate change on human activities. Students will learn how to specify, fit and interpret a variety of statistical models, and how to use them to answer scientific questions about the climate. The material is introduced using numerous case studies. Hands-on sessions with the R statistical software will be an integral part of the course.

Introduction to Programming for Statistics

Hands-on sessions with the R statistical software. Lectures will focus on imparting data handling and analysis skills utilizing various commonly used scientific data formats (e.g. netCDF, ascii etc). Students will also be introduced to geo-spatial mapping routines in R to facilitate rapid spatiotemporal aggregation and mapping of environmental and socio-economic data.

Machine Learning (prof. Cosmo)

Introduction to the principles and elements of machine learning. Application of commonly used neural networks and other machine learning approaches with focus on climate science will be a central theme of the course. Lectures will include hands-on machine learning algorithms using Python programming language. Students will get an overview and experience in data science, a hot topic having wide-ranging applications in environmental studies.

Introduction to Climate Dynamics (prof. Zanchettin)

Introduction to climatology. Basic understanding of how Earth's climate operates and how it is investigated by contemporary and pioneering climate research, with focus on the physical components of climate. Students will become familiar with the main modern tools used for characterization, understanding and prediction of climate and learn fundamentals of anthropogenic climate change and natural climate variability. Lectures will be frontal.

Environmental and Climate Economics (prof. De Cian)

Market failures and environmental externalities. The role of climate policy in the broader context of sustainable development and planetary boundaries. Climate-economy tools to simulate and evaluate climate policy instruments. Lectures will focus on theory and applications through hands-on sessions, group discussion, and students' presentations. Students will learn to compare costs and benefits of climate



change, analyze, evaluate, and design climate policy solutions, conceive transformational pathways in the context of sustainable development.

Climate of the Past (prof. Barbante)

Introduction to paleo-climate, time scales of climate change, and climate in human history. Methods for detecting climate change, including proxies, ice cores, instrumental records, and time series analysis. Lectures will focus on the physical and chemical processes in climate, including primordial atmosphere, ozone chemistry, carbon and oxygen cycles, and heat and water budgets. Students will learn about the internal feedback mechanisms in earth's climate system, including ice, aerosols, water vapor, clouds, and ocean circulation.

Stream 1: Climate Economics and Finance Stream

Decision Theory and Multi-criteria Analysis

Methodological basis of Decision Theory under uncertainty, Utility Theory, Decision Tree, Group Decision, Weighted Averaging, Ordered Weighted Averaging. Methods for optimization problems, in particular Linear Programming approach and some extensions.

Lectures will focus on methods as well as hands-on exercises in R. Students will learn how to understand, specify, describe some problems in this field, and to implement a resolution strategy.

CGE and Integrated Assessment Modelling of CC Impacts and Policies (prof. Bosello)

Overview of macroeconomic approaches used to study the socio-economic impacts of climate change and the adaptation responses. Four topics related to different modelling aspects: discounting, impacts assessment, and mitigation and adaptation policy assessments. Focus on Computable General Equilibrium (CGE) models. Lectures will focus on theory as well as applications with hands-on sessions. Students will learn the theoretical foundations of those models and learn how to apply them for the analysis of the socio-economic impacts of climate change.

Applied Environmental Economics and Policy Evaluation (prof. Vona)

The objective of the course is to introduce students to the use of econometric methods to evaluate historical environmental and climate policies, with an empirical focus on their impacts on innovation and employment.

Domestic and International Climate Policies (prof. Carraro)

Recent history of international negotiations on climate change to identify the main factors that prevent countries to achieve a widespread and effective agreement. Lectures will focus on the economic theory of climate negotiations using a quantitative approach based on game theory. The course will also review the main climate policy instruments with particular emphasis on the design of emission permits schemes both nationally and internationally.



Climate Finance (prof. Battiston)

Climate risk differs from other sources of risk traditionally analysed in finance. The course focuses on the new scientific approaches required to describe and manage climate-related risk, a topic of increasing interest for practitioners of both public and private financial institutions. Student will learn: i) the main theoretical notions of climate financial risk (in class) and ii) practical know-how for the computation of metrics of climate financial risk on empirical data (hand-on sessions).

Energy Systems and Technologies (prof. Pasut)

This course will describe the basic energy principles and laws (thermodynamics principles), and provide an overview of the energy system, generation and conversion technologies, with particular attention to low-carbon and renewable technologies, as well as the relationship between climate change and the built environment.

Stream 2: Climate Modelling and Impact Assessments

Chemodynamics, Climate Change and Environmental Quality (prof. Marcomini)

Basic concepts of environmental chemistry and thermodynamics. Climate system under a chemical and thermodynamic perspective. Impacts of climate change on environmental chemical pollution. Environmental risk assessment by exposure to chemicals. Lectures will focus on the behavior of environmental pollutants having different lifespans, with emphasis of the feedback cycle under climate change. Students will learn of the overall framework of contaminants' management, and to estimate and manage climate change risk.

Climate Modelling and Monitoring

This course will further develop the topic of climate modelling and monitoring. It will also introduce the science of remote sensing, with a particular focus on its viability for recognition of environmental problems, as well as different applications to issues related to climate variability and its management. It will provide an overview of key aspects of climate modelling, including the numerical implementation of different physical and dynamical processes and the evaluation and assessment of simulation outputs. Particular attention will be given to international climate simulation activities, like CMIP6.

Risk Assessment and Decision Support System for Environmental Impacts of Climate Change (prof. Critto)

Tools, methods and skills required for assessing environmental hazards, vulnerability and risks posed by climate change in the context of global environmental changes. Decision Support System for climate change risk assessment and management. Lectures will focus on theory as well as on applications through hands-on sessions, students' presentations, and group discussion. Students will learn to define and implement environmental risk analysis, impacts and vulnerability assessment, and use related specific decision support systems.



Adaptive Management of Natural Resources and Agricultural Systems (prof. Giupponi)

Introduction to the principles of natural resources management. Lectures will focus on the interactions between natural and human elements of socio-ecosystems and agro-ecosystems in particular. Sustainability and sustainable development will be central themes of the course. System dynamics will be the most widely used approach. Spatial and temporal dynamics are explored with concrete examples and case studies. Students will be involved in individual and group case-studies and learn methods and tools for problem-solving approaches.

Climate Damage Modelling and Assessment (prof. Mysiak)

Theoretical and practical understanding of the methods and tools to assess climate change risk and the economic benefits of climate adaptation. Analysis of climate policies and management of risks deriving from climate change and variability.

Lecture will focus on methods as well as applications in R and QGIS. Students will learn to estimate and manage climate change risk utilizing current geospatial modelling tools and practices.

Energy Systems and Technologies (prof. Pasut)

This course will describe the basic energy principles and laws (thermodynamics principles), and provide an overview of the energy system, generation and conversion technologies, with particular attention to low-carbon and renewable technologies, as well as the relationship between climate change and the built environment.

Labs

Data, Tools and Methods for Earth Sciences

The course will introduce students to recent tools, methodologies, data repositories and advancements in computing infrastructures applicable in Earth Sciences, with special emphasis on climate impacts and risk assessment. Students will develop an understanding of various observational/model simulated data sources, scope and limitations of usage, and tools to access and process Earth Sciences' data on cloud computing infrastructures such as the Copernicus Data Store. The course will be articulated into two parts:

1. Introduction (15h);
2. Practicals (15h).

Environmental Diplomacy

The course examines: (i) the complexities of environmental problems; (ii) theory of conflict resolution and environmental diplomacy; and (iii) ways of resolving conflicts. The class is taught comparatively, that is, with constant reference to cases from around the world.

This course is designed to raise student awareness of the state of environmental conflicts globally and the need for more effective environmental governance. It builds on several case studies of environmental

conflicts in different parts of the world, while also helping students develop the negotiation and mediation skills they will need to resolve environmental disputes.

Duration and summary of didactic activities and university credits (CFU)

The Master's lasts for one year with 360 hours of didactic activities (72 CFU) and additional 60 hours of practical, hands-on sessions (optionals). A 250 hour internship (10 CFU) forms an integral part of the course and represents an excellent opportunity to enter the workplace. The internship is mandatory. For students already working professionally in the sector, the same activities, accompanied by the drafting of a project work, will be recognized as valid for the completion of the internship.

The final exam (2 CFU) consists of a short report on the internship activity.

Including individual study, the course requires an overall commitment of 610 hours, for a total of 84 CFU.

Qualification issued

Students attending the didactic activities, completing the internship and passing the intermediate verifications and final examination will be awarded the Professional Master's Diploma (2nd level) in Science and Management of Climate Change.

Course period

September 2023 – June 2024.

Teaching method

Frontal lectures, hands-on-sessions, discussion groups, labs, seminars, guest lectures from international experts.

Language

English.

Attendance

Attendance will be monitored by signing a register. Regular attendance in the classroom is obligatory to passing the individual modules. Absences must not in any case exceed 20% of teaching hours for each individual module. Credits are assigned with completion of the individual modules and internship/project work activities and passing of the final examination. Students employed in a professional activity coherent with the Master's course may ask for this to be recognized in calculating the credits allocated to internship and work placement activities.

Course location

Scientific Campus Via Torino, Mestre (VE) / Economic Campus San Giobbe, Venezia.

Admission requirements

SECOND LEVEL

To enroll in the Master's, candidates must be in possession of at least a second cycle, specialization or pre-reform (Italian Ministerial Decree no. 509/99) degree in a scientific or economic subject. At the discretion of the Master's teaching board, candidates with other degrees, or equivalent foreign university qualifications, may be considered on the basis of their previous education and training and in respect of current legislation. English language to proficiency level of at least level B2.

Admission application

Candidates must fill in the online admission application, the details of which are defined under article 3 of the University's Call for Applications. Only applications accompanied by all the required documentation will be considered. The Call for Applications and relative attachments can be downloaded from the Master's website.

Selection procedure

A specific Board will assess candidates based on their CVs, qualifications submitted and a personal interview (the date, time and place will be communicated by email with sufficient advance notice; on motivated request, the interview may take place by video-conference). The oral admission test, in English, will aim to ascertain the candidate's motivations, but also to verify the competencies already acquired in subjects necessary for quantitative analysis and mathematical and statistical modelling, as well as the candidate's ability to express themselves in English. The main factors considered for the purposes of selection will be: qualifications, motivation, relational skills, relevant former educational and professional experiences and a willingness to respect then necessary attendance requirements.

Applicants interested in the Deloitte scholarship need to explicitly mention that in the cover letter and will be interviewed by a company representative as well.

Graduate eligibility

Students about to graduate may also be admitted to the course, provided they qualify within one month from the start of the course. In this case, enrolment to the Master's programme may be finalized only after the valid qualification for admission has been awarded. Candidates without a degree may enroll as auditors and will be awarded a certificate of attendance.

Available places

Maximum number of available places: **15**

Course fees: € 6.000

1st instalment by 14/08/2023: € 3.016 (including € 16 stamp duty)*

2nd instalment by 10/01/2024: € 3.000

* Stamp duty is not refundable. Fees should be paid through PagoPA



Study support

Loans are available from the University's partner banks (for more information: <http://www.unive.it/pag/8560/>).

A full scholarship, financed by the Master itself, will be granted to 1 student with the highest score based on the criteria used for the selection procedure.

Another full scholarship will be financed by the company Deloitte Climate & Sustainability; the student beneficiary must carry out the internship at the company within the Sustainability & Climate Change team in Italy.

Enrolment

ADMISSION APPLICATION SUBMISSION (online procedure, Call for Applications, art. 3)

by July 11 2023

SELECTION AND RESULT ANNOUNCEMENT

by August 1 2023

ENROLMENT COMPLETION (online procedure, Call for Applications, art. 6)

by August 11 2023

Beginning of courses: September 2022. See <https://www.unive.it/data/37027/> for updates.

Course coordinator and deputy coordinator

Prof. Wilmer Pasut, prof.ssa Enrica De Cian.

Website

www.unive.it/climate

For information

On **enrolment procedures**, please contact:

The Post-lauream office, **e-mail:** postlauream@unive.it, **Tel:** (+39) 041 234 7575.

On **didactic activities, calendar** of lessons and **internships**, please contact:

e-mail: phd-climate-change@unive.it,

Tel: +39 041 234 7743.