



**Dipartimento  
di Economia**

**2024 - 2025**

**MASTER DEGREE IN**

**ENVIRONMENTAL ECONOMICS, LABOUR  
AND SUSTAINABLE DEVELOPMENT**

**CURRICULUM**

**GLOBAL DEVELOPMENT**



# Welcome

We believe today is the best time to build solid foundations for the future and to practice and gain confidence with conceptual frameworks, tools and policies: the **Master in Environmental Economics, Labour and Sustainable Development** can help you build your tomorrow!

## **Presentation**

Within the Master in Environmental Economics, Labour and Sustainable Development, the “Global Development” curriculum is a program conducted entirely in English that addresses the most pressing and challenging issues in the global world. In this program, you will study the causes and effects of globalisation, the relationship between society, the economy and the environment, the paths of growth and development around the world and how to support the sustainability of these processes with solid policies and inclusive transitions.

**Enrolling in this Master, you have the opportunity to apply for a DOUBLE DEGREE Program with the [Gustave Eiffel University in Paris](#)**



## **Developing your skills is our goal**

We live in a world of unprecedented opulence that is more interconnected than ever. Yet we also live in a world of considerable deprivation and oppression, where extreme poverty, unmet basic needs and unacceptable inequalities persist. Overcoming these problems is the primary goal of the “Global Development” curriculum.

This curriculum will be ideal for you if you want to study the causes, effects and disparities of development processes.

You will find out why hunger is still being fought in vast areas of the world, why some development strategies are successful, and others are not, what determines the prosperity of certain territories and what role might be played by public policies and the actions of economic agents, companies and governments, as well as non-governmental, national and international organisations.

## **CURRICULUM**

### **Global Development**

This innovative course equips you with the knowledge and skills to understand, investigate and respond to current development issues. You will have the opportunity to explore the following topics: sustainable development, development policies, innovation policy, international trade and migration, spatial economics, environmental sustainability, management of development programs, and labour rights.

Faculty members actively participate in national and international research programs enabling you to engage with research activities and multidisciplinary teams in a stimulating environment.

Overall, this course will enable you to build in-depth knowledge and understanding of development theory, policy, tools and techniques, and provide you with an advanced capacity for critical thinking, independent study and research.

Our graduates are well equipped to apply their skills to careers in different areas. You can apply for highly qualified jobs in private and public enterprises and agencies, national and international research centres, international organizations and NGOs, or continue your studies by enrolling in PhD programs.

All courses are conducted in English, with a class made up of foreign students to promote the circulation of ideas and cultural exchange. You can collaborate on the many European and international research projects your teachers are working on, and participate in the ongoing international initiatives that are organized in collaboration with the UN agencies based in Rome. Some courses include field experience in developing countries.

# 1° YEAR

COURSE LIST	CFU
Development Economics	9
Industry and Innovation Policies in Developing Countries: theory and practice	9
Statistical Methods in Economics	9
Sustainable Human Development	9
Sustainable Finance and ESG Investing	9
Local Economies in a Globalized World	9
Foreign Language / Internship	6

# 2° YEAR

COURSE LIST	CFU
International Trade and Migration	9
Advanced Topics in Statistical Learning	9
Sustainable Development Management	9
Global Economy and Labour Rights	9
Optional courses suggested: one among Energy economics and climate change policy or Policy evaluation lab	9
Thesis	15

## The double degree program

Starting from the academic year 2023-24, students who select the “Global Development - double degree” path can become part of an integrated study program in English for the achievement of a double degree - Italian and international.

Students attending the double degree program will attend the second year at the french [Gustave Eiffel University](#), which offers a curriculum of studies that is coherent with our Global Development curriculum.

Once the exams have been passed and the thesis discussed, they obtain the double degree title.

### What are the benefits of the Double Degree program?

Promote an international career; Increase the chances of finding a job; Live a unique experience; Discover new cultures and learn new points of view; Grow personally and professionally; Expand your network of contacts and develop international relationships and friendships!



## Our campus

Our institution is young and its campus has been designed and equipped to offer state-of-the-art digital technologies.

Class equipment allows for audio-video streaming, and a wi-fi connection is available everywhere. The computer lab has two rooms with 85 workstations and a carefully made selection of scientific softwares.

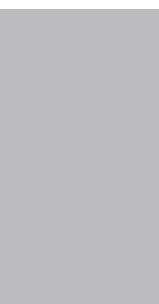
The Pierangelo Garegnani library has two large reading rooms, with 250 study stations spread over two levels. A large collection of books is available for consultation and borrowing. Electronic databases allow to access a large selection of scientific journals and data collections.

The spaces and terraces outside our buildings are well designed and useful for socializing.





**Courses' Syllabus**



# Development Economics

(60 hours, 9 ECTS)

Giorgio d'Agostino: giorgio.dagostino@uniroma3.it

## Objectives and Structure

The purpose of this course is to provide students with analytical and empirical tools apt to build up an advanced and solid understanding of economic development processes. This objective will be pursued by connecting the theory to public policy issues at global level, international development cooperation and field level issues and key elements. The introduction of different approaches, and their connection within an interdisciplinary and critical perspective, is intended to lay the ground for the skills needed to contribute in the area of international development both at desk, field and analysis level.

## Outline

### Module 1: Preliminaries

Development Economics: An Overview  
Understanding Development: Concepts and Definitions  
Historical Perspectives on Development Thought  
Assessing the State of Development

### Module 2: Poverty

Theoretical Approaches & empirical Issues  
Social Programs

### Module 3: Inequality

Theoretical Approaches & empirical Issues

### Module 4: Economic Growth

Stylized Facts of Economic Growth  
The Solow Model: A Framework for Understanding Growth  
Applying the Solow Model to Real-world Contexts  
Public Spending and its Impact on Economic Growth

### Module 5: Conflict and Development

Determinants of Conflict  
The Interplay between Conflict and Development  
Post-Conflict Reconstruction and Development

## Textbooks and Teaching Material

Alain De Janvry & Elisabeth Sadoulet (2021) Development Economics, Theory and Practice (Second edition). Routledge, New York.

Jurgen Brauer & J. Paul Dunne (2012) Peace Economics: A Macroeconomic Primer for Violence-afflicted States. United States Institute of Peace Press, Washington, DC.

## Final assessment

As the final exam requirement, students will prepare and deliver a comprehensive presentation showcasing the main findings and outcomes of a project developed with the instructor. This project serves as a practical application of the knowledge and skills acquired throughout the course, allowing students to demonstrate their understanding of economic development processes and their ability to apply analytical and empirical tools in real-world contexts. The presentation should effectively communicate the key insights, methodologies used, data analysis techniques employed, and the implications of the project's findings.

# Industry and Innovation Policies in Developing Countries: Theory and Practice

60 hours, 9 ECTS

Carlo Pietrobelli: [carlo.pietrobelli@uniroma3.it](mailto:carlo.pietrobelli@uniroma3.it)

## Prerequisites

Full mastery of the English language. Basic training in Economics and Economic Policy.

## Objectives and Structure

Industrial development and innovation are the essential forces that determine growth, development and structural change. In particular, innovation plays an essential role in the developing world and its role will be increasingly important. This course will give students the tools and analytical methods to think systematically about industrial development and innovation in developing countries and provide them with a practical understanding of these phenomena.

The course focuses on the economic logic behind policies and programs to promote industry and innovation in a developing country context. Students interested in working for multilateral organizations, government agencies, private sector firms interested in emerging markets, NGOs and other organizations promoting innovation and industrial development should take this course.

## Outline

Part one of the course lays the theoretical foundations of industrial development, including traditional, as well as, new and unorthodox approaches, with a focus on the theory of the firm and of innovation in emerging countries. Part two of the course explores in detail the tools and mechanisms frequently implemented in industrial and innovation policies and programs, and analyzes the approaches followed by some governments and international organizations using concrete empirical examples from policies and projects implemented by governments and international organizations.

Active participation and discussion will be encouraged throughout the course. A typical class will involve a lecture, with the second part of the class split between follow-up discussion informed by student readings and group work and presentations to identify the problems and the policy remedies to insufficient innovation and industrial development in selected developing countries.

## Textbooks and Teaching Material

Teaching material will be made available on Moodle and Teams.  
Selected Chapters from:

Szirmai A. (2015) *Socio-Economic Development*: Cambridge University Press, 2nd Ed., chapters 8 and 9.

Crespi G., Fernandez-Arias E. and Stein E. (Eds.), (2014), *Rethinking Productive Development: Sound Policies and Institutions for Productive Transformation*, Development in the Americas, London: Palgrave for Inter-American Development Bank. Chapters 1, 2 and 3.

Juhász R., Lane N.J., and Rodrik D., (2023) "The New Economics of Industrial Policy", Working Paper 31538, <http://www.nber.org/papers/w31538>

Cirera X. and Maloney W.F., (2017), *The Innovation Paradox: Developing Country Capabilities and the Unrealized Promise of Technological Catch-Up*, Washington DC: The World Bank, <https://openknowledge.worldbank.org/handle/10986/28341> chapters 1, 2, and 4.

And a selection of papers that will be made available.

## Final assessment

The course assessment will be based on an online assessment after about two months and two projects that the students will write and present during the second part of the course. The first one will include an assessment of the development of innovation or industry in a selected developing country, the second one will be a proposal of a development project to address the problems identified in the first project. Both will be presented and discussed in class in front of a panel of advisors (the class itself), that will have to critically ask questions and discuss.

# Statistical methods in economics

60 hours, 9 ECTS

Caterina Conigliani: caterina.conigliani@uniroma3.it

## Prerequisites

No formal prerequisites are requested. However, a preliminary knowledge of descriptive statistics, random variables and statistical inference is warmly recommended.

## Objectives and Structure

The main objective of the course is to provide the fundamental tools for the application of statistical methods to the analysis of economic data. The theoretical part will be supported by an applied part devoted to the analysis of real data sets by means of the software R. A student that has completed the course should be practiced in the application of advanced statistical methods, should be able to interpret the results of a statistical analysis, and should be aware of limitations and possible sources of errors in the analysis.

## Outline

Part I: Introduction to data analysis and exploratory techniques

Cluster analysis  
Principal component analysis

Part 2: Normal linear regression and its generalizations

Multiple regression  
Polynomial regression  
Logistic regression  
Beta regression  
Poisson and negative binomial regression

Part 3: Panel data analysis

Balanced and unbalanced panel, micro and macro panel  
Modeling the level of a dependent variable  
Modeling the change of a dependent variable  
Fixed effects and random effects models for continuous variables, categorical variables and dichotomous variable

## Textbooks and Teaching Material

Chatterjee, S. and Hadi, A.S. (2012), *Regression Analysis by Example*, 5th Edition, Wiley. Chapters: 1, 2, 3 (excluding 3.9), 4 (excluding 4.3, 4.9.2, 4.9.3, 4.10, 4.12, 4.13, 4.14), 5 (excluding 5.6 and 5.7), 6 (excluding 6.6 and 6.7), 9, 11, 12 (excluding 12.8.3 and 12.8.4), 13 (excluding 13.5, 13.6, 13.7).

Fox, J. and Weisberg, S. (2010), *An R companion to applied regression*, 2nd Edition, SAGE publications Inc.

Andreb, H-J, Golsch, K., Schmidt, A.W. (2013), *Applied panel data analysis for economic and social surveys*, Springer. Chapters: 1, 2, 3, 4.

## Final assessment

For non-attending students and for students attending online, the course assessment will be based on a written exam held in the computer lab, that will involve the analysis of different data sets using the methods and models studied during the course. Attending students (i.e. students that attend at least 75% of the lectures in presence) will be able to choose between the written exam and the development and discussion of a short dissertation (January/February 2025 only).

# Sustainable Human Development

60 hours, 9 ECTS

Pasquale De Muro: [pasquale.demuro@uniroma3.it](mailto:pasquale.demuro@uniroma3.it)

## Prerequisites

No formal prerequisites, but students without previous knowledge in Development Economics should contact the professor for preliminary readings.

## Objectives and Structure

The course aims to introduce students to an alternative development paradigm, human development, and to its conceptual framework, the capability approach, and their relation with sustainability. Students will learn a number of theoretical and analytical tools and how to apply them to main current global development issues, such as poverty, hunger, inequality, gender gap, decent work, the human pressures on planet Earth and their consequences for future generations.

## Outline

### Part I: Concepts

A Normative Framework for Development  
The Human Development and Capability Approach  
Ideas Related to Human Development

### Part II: Topics

Economic Growth and Decent Work  
Equality and justice  
Poverty and Inequality Analysis  
Institutions, Markets and Economic Development  
Democracy and Political Participation  
Education and Culture  
Health and Nutrition  
Sustainability and Planet Earth

### Part III: Policy

Human Development Policy Analysis  
Policy Case Studies

## Textbooks and Teaching Material

Deneulin S. with Shahani L.(eds.), An Introduction to the Human Development and Capability Approach: Freedom and Agency, Earthscan, London, 2009  
(<https://www.idrc.ca/en/book/introduction-human-development-and-capability-approach-freedom-and-agency>)  
Robeyns I., Wellbeing, Freedom and Social Justice: The Capability Approach Re-Examined, Open Education Resource (OER) LibreTexts Project, 2023  
[https://socialsci.libretexts.org/Bookshelves/Sociology/Cultural\\_Sociology\\_and\\_Social\\_Problems/Wellbeing\\_Freedom\\_and\\_Social\\_Justice:\\_The\\_Capability\\_Approach\\_Re-Examined\\_\(Robeyns\)](https://socialsci.libretexts.org/Bookshelves/Sociology/Cultural_Sociology_and_Social_Problems/Wellbeing_Freedom_and_Social_Justice:_The_Capability_Approach_Re-Examined_(Robeyns))  
United Nations Development Programme, Human Development Report 2020. The Next Frontier: Human Development and the Anthropocene, UNDP, New York, 2020  
<https://hdr.undp.org/content/human-development-report-2020>

## Final assessment

Ongoing evaluation for attending students on the basis of classwork and homework (exercises, short papers, presentations, quizzes, reviews, ...); final evaluation for other students on the basis of a written test.

# Sustainable Finance and ESG Investing

60 hours, 9 ECTS

Ottorino Morresi: [ottorino.morresi@uniroma3.it](mailto:ottorino.morresi@uniroma3.it)

## Objectives and Structure

The purpose of the course is to provide students with concepts and knowledge of sustainable finance. After introducing the basics of traditional finance, they will be developed, extended, and integrated, to explain how an apparently purely financial and short-term concept is indeed strongly related to environmental and social aspects, that are long-term values. The course describes why and how serving shareholders' interest and having success in the long run require looking after environmental, social, and governance needs. It also demonstrates that stakeholders' and shareholders' interests are more aligned than one can think.

## Outline

Finance as usual (shareholder value theory): traditional tools to analyze stocks, bonds, and their portfolios

- Basics of fundamental analysis and technical analysis

- Basics of bond analysis

- Evaluation of portfolio performance and risk

From shareholder value to sustainable finance: theory, approaches and ongoing debate

- Enlightened shareholder value

- Stakeholder value (Triple Bottom Line)

- Pieconomics and common good value

Measuring and pricing externalities, forms of internalization, and the concept of Integrated Value.

How to move from short term horizons to long term value creation

- Changing business models and reporting mechanisms

- The role of intangibles

- Principles of materiality, comparative advantage, and multiplication

How firms are incentivized to create value for the long term

- Optimizing executive and employee compensation

- Investor engagement: the role of hedge funds; mutual, pension, and index funds

- Share repurchases: are they the evil?

- Incorporating sustainability into the board of director and internal committees

- Other corporate governance issues

Measuring and disclosing a firm's sustainability

- Common metrics and Integrated Reporting

- ESG rating agencies

- Pros and cons of ESG ratings

Firm performance and sustainability: Empirical evidence

Integrating ESG issues in equity investment strategies

- Negative screening, integration, best-in-class, and other strategies

- Is sustainability a source of higher investment performance? Evidence from ESG funds' performance and risk

- Impact investing

Integrating ESG issues in investment strategies without voting power

- Green bonds

- Social bonds

- Social impact bonds

EU Regulation on sustainability

- Taxonomy (Regulation (EU) 2020/852)

- Corporate sustainability reporting (Regulation (EU) 2022/2464, NFRD)

- Sustainability finance disclosure (Regulation (EU) 2019/2088, SFDR)

The bottom line: conclusions, proposals, guidelines, and challenges of tomorrow's sustainable finance

## Textbooks and Teaching Material

Schoenmaker, D., & Schramade, W. (2018). Principles of sustainable finance. Oxford University Press. Chapters 1-2-3-5-6-7-8-9

Edmans, A. (2021). Grow the pie: How great companies deliver both purpose and profit, updated and revised version. Cambridge University Press. Chapters 1-2-3-4-5-6-7-8-9

(some of the) additional suggested readings

Barber, B. M., Morse, A., & Yasuda, A. (2021). Impact investing. *Journal of Financial Economics*, 139(1), 162-185.

Berg, F., Koelbel, J. F., & Rigobon, R. (2022). Aggregate confusion: The divergence of ESG ratings. *Review of Finance*, 26(6), 1315-1344.

Bolton, P., & Kacperczyk, M. (2021). Do investors care about carbon risk?. *Journal of financial economics*, 142(2), 517-549.

## Final assessment

Oral exam

# Local economies in a globalized world

60 hours, 9 ECTS

Mara Giua: mara.giua@uniroma3.it

## Objectives and Structure

Over the past decades the importance of cities and regions has increased in parallel with the 'globalisation' of the world economy. The expansion of trade, the internationalization of firms, the galloping process of outsourcing, and the emergence of digital technologies are not creating a 'flat world'.

Numerous forces are coalescing in order to provoke the emergence of urban 'mountains' where wealth, economic activity, and innovative capacity agglomerate.

Not all regions have the same capacity to maximize the benefits and opportunities and minimize the risks linked to globalization. Not all regions will experience successful recovery and resilience trajectories.

The course aims to provide students with an in-depth understanding of key conceptual tools for the analysis of local economic development and policies.

Lectures, seminal focuses and practical classes will drive

students in analyzing why and how local trajectories of development can be so different and how to ensure that they are virtuous.

## Outline

Conceptualization of regional growth and local development

Neo-classical approach and the regional convergence debate

Local economic development: institutions, innovation, proximities, competitiveness

Regional Policies: motivation, implementation, and impacts

Empirical analysis of regional economics and policies:

data and measurement, growth-determinants modelling, introduction to policy evaluation approaches

## Textbooks and Teaching Material

Capello R., Regional Economics, Routledge 2nd Edition, 2016.

European Commission, 8th Cohesion Report, 2022

Scientific paper on the topics that will be covered will be shared during the course

## Final assessment

The course assessment will be based on an oral exam. Students attending the class regularly will have the possibility to substitute the final exam with three mid-term assignments (1. Questions set; 2. Presentation; 3. One-page final essay) on selected parts of the program.



# International trade and migration

60 hours, 9 ECTS

Silvia Nenci: [silvia.nenci@uniroma3.it](mailto:silvia.nenci@uniroma3.it)

## Objectives and Structure

This course aims to equip students with an analytical framework to study international trade and migration. It is divided into two main parts. The first part examines classical trade theories (i.e., the Ricardian Model and the Heckscher-Ohlin Model) as well as new trade models that incorporate imperfect competition. Recent developments concerning firm-level evidence will also be explored. Additionally, the effects and political economy determinants of trade policy will be analyzed, including discussions on preferential trade agreements. The second part of the course is dedicated to a comprehensive analysis of migration. Students will study the characteristics, evolution, causes, and economic effects of migration, delving into the complexities surrounding this topic.

Throughout the course, both theoretical frameworks and recent empirical works will be explored, allowing students to understand the implications of the concepts discussed. Methodological issues related to measurement and estimation will also be addressed.

To facilitate active participation and stimulate discussion among students, the course will feature presentations that highlight current facts and figures concerning international trade and migration. This approach encourages students to engage actively with the material and foster meaningful exchanges of ideas.

## Outline

### Section 1: International trade: stylized facts

Facts, changes and history of globalization

### Section 2: Trade Theories

The Ricardian Model

The Specific-Factors Model

Factor endowments and the Heckscher-Ohlin Model

Movement of labor and Capital

The New Trade Theories

Offshoring and Global Value Chain

Firm Heterogeneity

### Section 3: Trade policy

Import Tariffs and Quotas

Non-tariff measures

Multilateral trade integration: the World Trade Organization

### Section 4: Migration

Characteristics and evolution of international migration flows

Determinants of migration

Economic impact of migration on countries of origin and destination

### Section 5: Empirical lab sessions

Trade, trade policies and migration data sources

Working with trade and trade policies data: the gravity model

## Textbooks and Teaching material

Feenstra R. C. and A.M Taylor (2017), *International Trade*, Forth Edition, Worth Publishers, chapters: 1, 2, 3, 4, 5, 6, 7, 8.

Clemens, M. A. 2011. "Economics and Emigration: Trillion-Dollar Bills on the Sidewalk?", *Journal of Economic Perspectives*, Vol. 25, No. 3, pp. 83-106

Abramitzky, R., & Boustan, L. (2017). Immigration in American economic history. *Journal of economic literature*, 55(4), 1311-1345.

Course materials, including lecture slides and articles, will be made available for download on the course's webpage. Additionally, articles on current topics will be presented during class to encourage discussion and engagement among students.

## Final assessment

The course assessment will consist of an oral exam. Students who attend the class will have the opportunity to give a presentation based on articles proposed during the course and/or carry out empirical exercises as part of their assessment.

## Students enrolled in the MA program (Laurea Magistrale) in International Studies:

The course offers 6 CFU (Crediti Formativi Universitari) for students admitted to the MA program in International Studies for the academic year 2022-2023. As a result, a shorter study program is provided for these students, excluding chapters 3 and 7 of Feenstra and Taylor's book.

# Advanced topics in Statistical learning

60 hours, 9 ECTS

Marilena Barbieri: marilena.barbieri@uniroma3.it

## Prerequisites

Students should be familiar with basic concepts in statistical inference and with multiple regression analysis.

## Objectives and Structure

The aim of the course is to provide students with a coverage of a set of methods used in the analysis of economic data to answer a variety of specific, quantitative questions and with the computational tools to be used in the empirical applications. The program includes further topics on the classical regression model, time series analysis and some recent proposals to deal with applications having many observations and/or many predictors relative to the number of observations.

The course applies the widely used freeware programming environment for statistical analysis, known as R (through the RStudio interface).

## Outline

A refresher on multiple linear regression. Further topics in regression analysis: Instrumental variables, Differences-in-Differences, Regression Discontinuity estimators, Heckman's sample selection model, Mediation analysis, Quantile regression. Introduction to time series and forecasting. Models for univariate time series: ARMA, ARIMA, ARCH, GARCH. Time series regression with additional predictors. The autoregressive distributed lag model. Estimation of dynamic causal effects. The VAR model. Breaks. Cointegration and error correction. Prediction with many regressors and big data: Ridge regression, the Lasso, regression trees and random forests.

## Textbooks and Teaching Material

Stock J.H. and Watson M.W., Introduction to Econometrics, Global edition, 4th Edition, 2020, Pearson.  
Angrist, J.D. ; Pischke, J.-S., Mostly harmless econometrics : an empiricist's companion, 2009, Princeton University Press.

## Final assessment

The final exam is composed of a written two hours closed-book and closed-note test, takes place in the Lab and consists in both analytical and computer-exercise questions and an oral exam. The oral exam is not compulsory and consists mainly in a discussion on the written test.

Each candidate may prepare a short essay on the analysis of a set of data, using the tools discussed during the classes, whose content will be argued during the oral exam.

# Sustainable Development Management

60 hours, 9 ECTS

Giorgia Masili: giorgia.masili@uniroma3.it

## Objectives and Structure

The Sustainable Development Management course aims to illustrate and transmit to students theoretical and practical knowledge, fundamental concepts, and analytical tools for understanding the structure and composition of Cultural Heritage (tangible and intangible) and the role it plays in the territory. Particular attention will be paid to tangible cultural heritage, the business models for its management and business model Innovation aimed at promoting its sustainability, protection, and enhancement also through technological solutions, as well as exploiting its availability to foster the well-being of individuals. More specifically, the notions on the sustainable management of cultural heritage will focus on preserving its value so that it can be made available to future generations to foster the subjective well-being and resilience of those with access to it. By the end of the course, the students will have acquired notions that will give them a clearer picture of the composition of cultural heritage and the actions implemented by the ecosystem's actors with a view to its sustainability, protection, and promotion. They will be able to look at these actions critically, evaluating their impact on the population's well-being.

## Outline

### 1) Sustainable Development and SDGs

- Sustainable Development concept and models
- SDGs importance and origins
- Culture and Sustainable Development

### 2) Culture, Cultural Domains and creative and cultural firms

- Definition(s) of culture and cultural domain
- Cultural development measurement.
- Tangible cultural Heritage: the offering system
- Creative and cultural firms and the benefits deriving from cultural goods' consumption.
- Cultural participation: measurement and data.

### 3) Well-being and Resilience

- Well-being: definition, dimensions and measurements;
- Resilience: definition and measurements;
- Impact of art consumption and cultural participation on well-being;

### 4) Innovation and Digital Technologies in the cultural sector

- Innovation, Open Innovation
- Digital technologies and their impact on the sector

### 5) Business Models for and Business Model Innovation for cultural organization.

## Textbooks and Teaching Material

Slides, reports, and other study materials will be supplied on the Moodle and Teams platforms. Further indications will be provided during the course.

## Final assessment

For attending students, there will be a written test at the end of the course consisting of open-ended questions on the topics covered during the lectures. They will work on individual and/or group assignments whose evaluation will be added to the written test grade - considering only the tests with positive evaluations (18/30). Individual assignments/group work evaluations will be valid for the entire academic year. For non-attending students, there will be a written examination on the topics covered in the lectures. Further details will be provided at the beginning of the course

# Global economy and labour rights

60 hours, 9 ECTS

Maria Giovannone: maria.giovannone@uniroma3.it

## Objectives and structure

The course aims at developing the salient characteristics and trends in social and labour rights regulation, in the framework of the global economy and sustainable development. It is divided into four main parts. An introduction to the international labour and decent work standards by the International Labour Organization as well as the standards emerging from the European Union agenda. The analysis of the most important international and European trade agreements and standards and new generation social clauses. The case study of a country selection. The analysis of rules regulating national, international and European laws regulating labour contracts and status, social security systems and industrial relations.

## Outline

Sustainable Development, Global Economy and Social Rights: why we need a linkage

The International Labour Organization and International Labour Standards

The European Union and Employment Law

International and European Trade Agreements

Laws regulating labour contracts and status, social security systems and industrial relations

Social Clauses, Codes of Conduct and CSR: an evolutionary perspective

Selected case studies, guest lectures and students' presentations

## Textbooks and Teaching material

Servais J.M., International Labour Law, Seventh Edition, Wolters Kluwer International, 2022.

Additionally/Alternatively, just for Italian speaking students:

Brino V., Perulli A., Diritto Internazionale del Lavoro, Terza edizione, Giappichelli, Torino, 2023.

Teachers' slides

Supplementary and up-to-date information and materials will be available to students in a shared folder. The access will be made available by the teacher sending an e-mail request.

## Final assessment

The final assessment will be based on both an intermediate group presentation, an intermediate written test and a final oral interview (in English) concerning more topics selected by the teacher from those analyzed during the course.

# Energy Economics and Climate Change Policy (optional)

60 hours, 9 ECTS

Valeria Costantini: [valeria.costantini@uniroma3.it](mailto:valeria.costantini@uniroma3.it)

## Objectives and Structure

This course consists in two modules. The first deals with basic concepts in Energy Economics as the distribution of sources and consumption patterns at the geographical level, the analysis of demand and supply of different energy sources and the use of energy by sectors. World energy outlook scenarios are deeply investigated. The second part of the course allows students gathering main analytical tools to consider jointly energy issues and climate change impacts. The economic analysis of policy impacts over the long term and burden sharing issues in the international bargaining process are also analyzed. At the end of the course students will be able to understand global energy and climate reports, conduct their own impact analysis and be familiar with main simulation models.

## Outline

### Part I: Energy Economics

- World Energy Outlook
- Energy security and energy poverty
- Fossil fuels economics
- Energy price mechanisms
- Alternative energy sources and clean energy technologies

### Part II: Climate Change Policy

- The science of climate change
- Climate change impacts
- Vulnerability and adaptation
- Mitigation policies
- The European low-carbon strategy

## Textbooks and Teaching Material

Teaching material will be available to students in a dedicated [OneDrive folder](#).

Textbooks (available in the corresponding folders for Lecture number):

Bhattacharyya S.C. (2011), *Energy Economics: Concepts, Issues, Markets and Governance*, UK: Springer-Verlag. Chapters: 1, 2, 3 (pp. 41-61), 4 (pp.77-81), 5 (sect. 5.1.1-5.1.5), 6 (excl. 6.5), 7 (Appendix excluded for all chapters).  
IEA (International Energy Agency) (2022), *World Energy Outlook 2022*. Chapters: 1-2-3-4-5-6-7-8.  
IEA (International Energy Agency) (2016), *Energy Efficiency Indicators*. (pages 5-10).  
IPCC (2014), *Climate Change 2014 – Synthesis Report*. (pages 1-31).  
IPCC (2014), *Climate Change 2014 – Impacts, Adaptation and Vulnerability Part A*. (pages 1-32).  
IPCC (2014), *Climate Change 2014 – Mitigation of Climate Change* (pages 41-107).  
Tol R.S.J. (2014), *Climate Economics: Economic Analysis of Climate, Climate Change and Climate Policy*, Edward Elgar Publ. Chapters: 1,2,3,4,5,6.

Papers and reports are available in dedicated folders organized by Lecture number as indicated in the detailed teaching agenda.

Additional sources for intermediate dissertations.

This is a list of international scientific journals the student must look at for intermediate dissertations:

- Applied Energy
- Climate Change Economics
- Climatic Change
- Climate Policy
- Global Environmental Change
- Energy Economics
- Energy Journal
- Environment and Development Economics
- Environmental and Resource Economics
- Journal of Environmental Economics and Management
- Resource & Energy Economics

## Final assessment

The course assessment for attending students is based on two small essays that the students write after the end of each part of the course, one on Energy Economics and one on Climate Change Policy issues, and a common presentation at the end of frontal lectures. For non-attending students, the final exam is a discussion with Q&A structure on all topics covered during the course.

## Policy evaluation lab (optional)

60 hours, 9 ECTS

Luca Salvatici: luca.salvatici@uniroma3.it

### Objectives and structure

The course aims at providing students with first exposure to some of the most relevant quantitative methods for economic policy analysis.

The objective is to engage students in an active, team-based process of learning about computable general equilibrium (CGE) models and their use in applied economic policy analysis. The course emphasizes an intuitive and graphical treatment of economic theory in the CGE model and provides structured experiences in running the RunGTAP software environment. RunGTAP is an intuitive, menu-driven CGE model interface that minimizes technological hurdles and allows students to quickly begin to focus on their economic thinking and experimentation. At the end of the course, participants will be entry-level modellers and more informed consumers of CGE-based analyses. During the course, students will:

review core economic theories from micro, macro, trade, and public finance and observe how they are operationalized in an applied general equilibrium model;

learn to recognize, control, and interpret the theoretically consistent behavior of consumers and producers

observe the aggregated, macroeconomic impacts of microeconomic behavior;

define model experiments that represent real-world issues;

learn to interpret general equilibrium model results by integrating their knowledge of multiple fields of economic study

### Outline

Week 1 - Getting Started

Students download and familiarize themselves with the course website, material, and software

Week 2 - Database of a CGE Model (Social Accounting Matrix – SAM)

Introduction to the GTAP SAM and RunGTAP Model

Week 3 - Demand

Introduction to Final Demand and Import Demand in the Model

Change Closures and Elasticities

Week 4 - Supply and Factor Markets

Introduction to Production in the Model

Week 5 - Trade and Welfare

Introduction to Taxes and Welfare in the Model

Week 6 - Group Research Project

Hands-on opportunity to carry out a model experiment and analyze its economy-wide effects: trade in value added, regional trade agreements, multilateral liberalization, preferential policies, climate change policies

Week 7 - Wrap-Up

Final discussions about Reporting and interpreting the results

### Textbooks and Teaching material

Lecture slides and other teaching material will be downloadable from the course website.

Students are expected to use personal PCs during the lectures.

Textbooks required:

Burfisher, M. (2021). Introduction to Computable General Equilibrium Models. Cambridge: Cambridge University Press.

Corong, E., Hertel, T., McDougall, R., Tsigas, M., van der Mensbrugghe, D. (2017). The Standard GTAP Model, Version 7, Journal of Global Economic Analysis, 2(1), 1-119 (<https://www.jgea.org/ojs/index.php/jgea/article/view/47/30> )

Hertel T. W. (2012). Global Applied General Equilibrium Analysis using the GTAP Framework. GTAP Working Paper No. 66 ([https://www.gtap.agecon.purdue.edu/resources/res\\_display.asp?RecordID=3751](https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=3751) )

### Final assessment

The course assessment will be based on a written exam.

Students attending the class will have the possibility to substitute the final exam with an oral discussion of the Group Research Project

## Some of our partner for internships & placement

ACI  
ACEA  
Activia Società Cooperativa  
ALAN ADVANTAGE  
ALTRA ITALIA SPA  
ANMIL  
ARIANNA 2001  
AS ROMA  
ATOS  
Basque Centre for Climate Change  
BANCA MONDIALE - Ufficio per l'Italia  
BIOVERSITY  
CARGO START  
CARITAS  
Cassa Depositi e prestiti  
CNR-IRCRES – Istituto di Ricerca sulla Crescita Economica Sostenibile  
Coldiretti  
CREA  
TRELLEBORG  
Ecooltra scootersharing Italia  
ENEA  
ENEL  
ENGINEERING SPA  
FAO  
GNAM  
GREENPEACE  
ICE  
IFAD  
INAPP  
INTERCOS  
ISMEA  
ISPRA  
ISTAT  
ITLOGIX  
KELLY SERVICES  
LEROY MERLIN  
Ministero Affari Esteri  
NHRG  
NTT DATA ITALIA  
N26 BANCK  
ORACLE  
PRESIDENZA DEL CONSIGLIO  
PAGOPA  
PW&C  
ROMANA DIESEL  
SIRAM SPA  
SlowFood  
World Food Programme  
WURTH  
WWF

## How to enrol

You can apply to our programme directly on web, starting from March. Based on the application result, you can enroll starting from July, and start the academic year at the beginning of October.

Further information are available in our [student web portal](#)

## Contacts

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