



# Winter School on Applied Economics for Sustainable Development (WiSED)

## The challenges of ecological transition: North-South perspective

26–30 January 2026; University of Tuscia (UNITUS), Viterbo, Italy



**Collaboration:** This initiative is jointly organized by University of Tuscia (UNITUS), Universidad Nacional Autónoma de México (UNAM), and the Latin American Institute (Freie Universität, FU-LAI).

**Objective:** WiSED aims to foster critical reflection on sustainable economic development in Latin America by bridging regional schools of thought with hands-on quantitative methods. Distinguished keynote speakers will offer critical analyses—rooted in their respective intellectual traditions—of the barriers and opportunities that developing economies face in the green and energy transition.

**Official Languages:** English.

**Target Audience:** WiSED is aimed at graduate and advanced undergraduate students in Europe who are specializing in development studies, environmental economics, or energy transition. It also welcomes Latin American students based in Europe working on related topics.

**Location:** The winter school and the workshop will take place at the rector's building of the University of Tuscia located in Santa Maria in Gradi Street, Viterbo (Italy):

<https://maps.app.goo.gl/3EAnVSQ4gmXdnVTA8>

### Organizing Committee:

Giulio Guarini (Co-coordinator), Julia Juárez (Co-coordinator), Chiara Grazini (UNITUS), Manuel Santos Silva (FU-LAI), Alejandra Arredondo (UNAM).

### Local committee

Giulio Guarini (co-coordinator), Chiara Grazini (co-coordinator), Ilaria Benedetti, Luigi Biagini, Luca Correani, Patrizio Morganti, Chiara Oldani, Barbara Pancino, Roberta Sestini

### Contact:

[giulioguarini@unitus.it](mailto:giulioguarini@unitus.it)

[c.grazini@unitus.it](mailto:c.grazini@unitus.it)

[juarez.garcia@comunidad.unam.mx](mailto:juarez.garcia@comunidad.unam.mx)

# PROGRAM of WISED

**Monday, January 26**

**Room 14: Registration (9:00-10:00)**

**Opening (10:00-11:15): Institutional Greetings by Prof. Tiziana Laureti (Rector of the University of Tuscia) and introduction to the winter school**

**Room 14: Part One (11:15-13:30)**

- Energy transitions in Latin America

Instructor: Prof. Dr. Barbara Fritz (Freie Universität Berlin-LAI)

*Chair: Julia Juárez*

- **General Description:** This course examines the macroeconomic challenges of financing energy transitions in Latin American economies. Drawing on expertise in emerging market vulnerabilities and financial globalization, Prof. Fritz analyzes how external debt dynamics, capital flows, and financial integration affect Latin American countries' capacity to fund sustainable energy infrastructure. The course will explore the intersection of climate policy and macroeconomic stability, focusing on the unique constraints and opportunities facing the region in achieving energy transition goals while managing external vulnerabilities.
- **Objective:** Course participants will understand the relationship between capital flows, exchange rate pressures, monetary policy and fiscal policy spaces, and climate finance in emerging markets, while evaluating policy frameworks and financing mechanisms specific to Latin America's energy transition challenges and assessing the trade-offs between climate investments and external balance considerations in the region.

**Lunch Time (13:30-15:00)**

**Room 14: Part Two (15:00-17:00)**

- Spatial data analysis for sustainable development

Instructor: Dr. Manuel Santos Silva (Freie Universität Berlin-LAI)

- **General Description:** This hands-on workshop introduces participants to the analysis of Geographic Information Systems (GIS) data for studying green transitions, climate change, and sustainable development in developing countries, with applications focused on Latin America. The session provides foundational understanding of spatial statistical and econometric methods, covering the intuition behind spatial data analysis and its relevance for climate and energy transition research. Participants will gain practical experience implementing these tools using R, working with real spatial datasets to explore questions related to renewable energy deployment, environmental impacts, and regional development patterns in Latin American contexts.
- **Objective:** This workshop aims to equip participants with the theoretical foundations and practical skills needed to analyze spatial data for climate and green transition research in developing countries. Participants will develop intuition for spatial statistical and econometric methods, learn to implement GIS data analysis techniques using R, and apply these tools to real-world questions related to renewable energy, environmental change, and regional development patterns in Latin America, thereby building capacity to incorporate spatial analysis into their own research on climate economics and sustainable development. **Required Materials or Software:** Laptop with R and RStudio/Posit. Data and code will be shared with the participants before the workshop (e.g., via GitHub).

**Tuesday, January 27**

**Room 14: Opening (09:20-09:30)**

**Institutional Greetings by Prof. Stefano Rossi (Director of the Department of Economics, Engineering, Society and Business Organization)**

**Room 14: Part One (9:30-11:00)**

- Dynamical systems

Instructor: Prof. Dr. Luis Cárdenas del Rey (Complutense University of Madrid)

*Chair: Alejandra Arredondo*

- **General Description:** In this session, students will understand the logic of dynamical systems as a set of differential equations, gaining both theoretical insight and practical modeling skills. They will also know how to obtain numerical simulations of dynamical systems in R and be able to represent the results according to academic standards of transparency and replicability, ensuring the clarity and reliability of their computational work.
- **Objective:** The main objectives of this course include developing the ability to manage a wide range of R packages specifically designed for the study of dynamical systems, such as de Solve, Phase R, and FME, enabling them to carry out robust and reproducible analyses for academic research.

**Coffee Break (11:00-11:30)**

**Room 14: Part Two A1 (11:30-13:00)**

- Latin American Structuralism and Heterodox Pathways to Sustainable Development

Instructor: Dr. Julia Juárez García (UNAM)

- **General Description:** This short course explores the foundations, critiques, and contemporary relevance of Latin American structuralist thought. Through a historical and analytical approach, it examines the structuralist critique of orthodox economics and its enduring impact on development theory. Special attention will be given to discussions on ecological macroeconomics in Latin America and the convergence between post-Keynesian heterodoxy and structuralism as a basis for renewed agendas aimed at sustainable and inclusive development.
- **Objective:** his course aims to examine the main theses and critiques of Latin American structuralist thought through a historical overview of economic thinking in the region. It will explore its influence across various subdisciplines and its role as a critical alternative to orthodox economics. Finally, the course will address contemporary research agendas that emerge from the dialogue between Latin American structuralism and heterodox schools of thought, particularly post-Keynesian economics.

## **Lunch Time (13:30-15:00)**

### **Room 14: Part Two A2 (15:00-17:00)**

- A Historical Overview of the Latin American Economy, 1875-2025

Instructor: Dr. Alejandra Arredondo (UNAM)

- **General Description:** This course offers a concise and general overview of the Latin American economy from the First Globalization to the present. The analysis is structured into four periods: from 1875 to 1945, when a liberal economic structure based on primary exports was adopted to promote growth; from 1945 to 1982, when the import substitution industrialization model proposed by ECLAC modified the role of the government as an active economic player; from 1982 to 2003, when the neoliberal reforms reoriented economic policy toward a market-driven model; and from 2003 to the present, when the Chinese economy gained prominence and transformed international trade relations. Finally, the course concludes with a critical reflection on the social, economic, political and environmental challenges that the region currently faces.
- **Objective:** The course provides an analysis of Latin America's economic history from 1875 to the present to understand the major transformations the region has experienced, particularly how the economic policies implemented have shaped its growth and development.

## **Thursday, January 29**

### **Room 14: Opening (09:20-09:30)**

**Institutional Greetings by the Mobility and International Cooperation Office of the University of Tuscia**

### **Room 14: Part One (9:30-11:00)**

- Theories-Measures-Policies Nexus for Sustainable Development Studies

Instructor: Prof. Giulio Guarini (UNITUS)

- **General Description:** The purpose of this session is to illustrate the salient differences between mainstream and heterodox approaches to sustainable development. The present study will commence with a discussion of the Schumpeterian perspective on economic epistemology, followed by an examination of the Development Doctrines scheme proposed by Thorbecke (2007). Furthermore, a critical analysis of the mainstream concept of Environmentally Adjusted Multifactor Productivity will be conducted, and the relevance of theoretical aspects in the development of composite indicators will be explained.
- **Objective:** The objective of the present session is twofold. Firstly, it seeks to furnish participants with a robust conceptual framework and a range of methodological instruments that draw upon the principles of classical post-Keynesian economics. Secondly, it aims to instill a nuanced understanding of the inexistence of theoretical neutrality in empirical research, emphasizing the importance of coherence across theoretical frameworks, empirical methodologies, and policy implications.

## **Coffee Break (11:00-11:30)**

### **Room 14: Part Two A1 (11:30-13:30)**

- Growth Regimes and Sustainable Development: A Model and some Comparative Political Economy

Instructor: Prof. Dr. Gabriel Porcile (Udelar)

*Chair: Giulio Guarini*

- General Description: In recent years a conversation has been going on between researchers in the field of Comparative Political Economy and post-Keynesian and Structuralists economists. This conversation has shed new light on the debate about varieties of capitalism by including in the analysis the role of aggregate demand in economic growth and its sustainability over time.
- Objective: Using the concept of growth regimes, we argue that in developing economies the focus of the analysis should be on the evolution of net exports, which defines space for the sustainable expansion of other components of aggregate demand. We also argue that it is crucial to consider how economic diversification (towards sectors which are more technology intensive) requires a complementary process of social transformation aimed at strengthening human capabilities and equality. Using a simple growth model, two polar growth regimes are identified: a “Nordic Regime” in which the extension of social protection goes hand in hand with export diversification and higher systemic competitiveness (with positive feedback between industrial and social policies); and a “Truncated Regime”, in which social and economic transformations are limited and disjointed, leading to slower growth and more political and economic instability. We illustrate the argument with a comparison of the experiences of Sweden and Uruguay during the First Globalization (1870-1929) and the First Globalization Backlash (1930-1939).

### **Lunch Time (13:30-15:00)**

### **Room 14: Part Two A2 (15:00-17:00)**

- Competitiveness and policies for sustainable development: empirical tools

Instructor: Dr. Chiara Grazini (UNITUS)

- General Description: This session will encompass the analysis of empirical research and case studies about ecological transition, international competitiveness and policy coordination. Based on the conceptual framework of the technology gap approach to international competitiveness (Laursen and Meliciani 2010), this course evaluates how green research cooperation can contribute to the ecological transition by improving green export competitiveness through interactions with environmental regulations and the economic complexity of the production system.
- Objective: Participants will gain practical experience implementing R packages to evaluate issues related to relationships between environmental exports, green international competitiveness, environmental regulation and R&D expenditure by implementing the simultaneous equations system model through the SUR system in RStudio on OECD and Eurostat data.

**Friday, January 30**

**Room 14: Opening and Institutional Greetings (10:00-10:10)**

**Room 14: Keynote Lecture (10:10-12:00)**

**Title: *Alternative theories of oil prices***

**Alessandro Roncaglia**

Emeritus Professor at Sapienza University of Rome

*Chair: Giulio Guarini*

**Coffee Break (12:00-12:15)**

**Room 14: Round Table (12:15-13:00)**

The political sustainability of ecological transition

*Chair: Chiara Grazini*

**Closure (13:00-13:30)**

# Workshop

## The Challenges of Ecological Transition: North-South Perspective

---

### PROGRAM

University of Tuscia, 28 January 2026

#### Room 14: Opening and institutional greetings (9:00-9:30)

- Barbara Pancino (Vice-coordinator of Ph.D. program in Economics, Managements and Quantitative Methods, UNITUS)

#### Room 14: Plenary Session China (ZUEL) – Tuscia (9:30-11:00)

##### *Past and Present Chinese Challenges*

Chair: Giulio Guarini (UNITUS)

- China's Poverty Allevation in Rural Area  
Prof. Ding (*Zhongnan University of Economics and Law*)  
Discussant: Barbara Pancino (UNITUS)
- China's International Financial Cooperation  
Prof. Sainan (*Deputy Dean of School of Law and Economics at Zhongnan University of Economics and Law*)  
Discussant: Chiara Oldani (UNITUS)

#### Coffee Break (11:00-11:30)

#### Parallel Sessions (11:30-13:30)

##### A. Structural and Environmental Asymmetries in the Global Economy (Room 14)

Chair: Luis Cárdenas del Rey (*Complutense University of Madrid*)

- Income Distribution and External Constraints: A Kaleckian-Structuralist perspective on the green transition  
Author: Julia Juárez García (UNAM)  
Discussant: Roberta Sestini (UNITUS)
- Moving beyond Ecological Unequal Exchange: Ground Rent and the Dynamics of Extractivism  
Author: Leonardo Kosloff (*University of Massachusetts*)  
Discussant: Julia Juárez García (UNAM)
- Productive, technological, and financial dependence: A friendly structural(ist) critique of ecologically unequal exchange  
Author: Luca Tausch (*Paris Nanterre University*)  
Discussant: Luis Cárdenas del Rey (*Complutense University of Madrid*)
- The Environmental Smile Curve: Input-Output evidence on the Pollution Haven Hypothesis  
Author: Federico Riccio (*Sant'Anna School of Advanced Studies*)  
Discussant: Giulio Guarini (UNITUS)

## **B. Case Studies on Unequal and Conflictual Ecological Transitions (Room 2)**

*Chair: Gabriel Porcile (University of Uruguay Republic)*

- Brazilian financial subordination and vulnerability produce biodiversity loss  
Author: Siwar Ortiz Guzman (*Viena University of Economics and Business*)  
Discussant: Barbara Pancino (*UNITUS*)
- Beyond Lithium and Dichotomies: Ecological Transition, Ontological Conflict and Intersected Dependencies in Salinas Grandes (Argentina)  
Author: Marisol Manfredi (*University of Pisa*)  
Discussant: Alejandra Arredondo (*UNAM*)
- The Un-Just, Not-So-Green Transition. Evidence from the case of Sardinia.  
Author: Maria Giovanna Bosco (*Università Politecnica Delle Marche*)  
Discussant: Ilaria Benedetti (*UNITUS*)
- The Impact of Disasters on Bank lending to MSMEs in the Philippines  
Author: Yu Sun (*SOAS, University of London*)  
Discussant: Chiara Oldani (*UNITUS*)

### **Lunch break (13:30-15:00)**

### **Main hall: Plenary Session (15:00-16:00)**

*Chair: Julia Juarez (UNAM)*

- Financial integration and finance-led dynamics in emerging and developing countries  
Prof. Dr. Alberto Botta (*University of Salerno*)  
Discussants: Gabriel Porcile (*University of Uruguay Republic*)

### **Coffee Break (16:00-16:15)**

### **Main hall: Research Colloquia WiSED 2026 (16:15-17:30)**

# GENERAL PROGRAM

	<b>Monday 26-Jan (Room 14)</b>		<b>Tuesday 27-Jan (Room 14)</b>		<b>Wednesday 28-Jan</b>		<b>Thursday 29-Jan (Room 14)</b>		<b>Friday 30-Jan (Room 14)</b>
09:00-10:00	Registration		09:20-09:30 <b>Institutional Greetings</b>		09:00-09:30 <b>Opening and Institutional Greetings</b>		09:20-09:30 <b>Institutional Greetings</b>		
10:00-11:15	<b>Opening</b> Institutional Greetings and introduction to winter school		09:30-11:00 <b>Dynamical systems</b> Dr. Luis Cárdenas del Rey (Complutense University of Madrid)		09:30-11:00 <b>Past and Present Chinese Challenges</b> Pr. Ding and Pr. Sainan (Zhongnan University of Economics and Law) (Room 14)		09:30-11:00 <b>Theories-Measures-Policies Nexus for Sustainable Development Studies</b> Pr. Giulio Guarini (UNITUS)	10:00-10:10	<b>Institutional Greetings</b>
11:15-13:30	<b>Energy transitions in Latin America</b> Pr. Barbara Fritz (Freie Universität Berlin-LAI)		11:00-11:30 <b>Latin American Structuralism and Heterodox Pathways to Sustainable Development</b> Dr. Julia Juárez García (Universidad Nacional Autónoma de México)	<b>Coffee Break</b>				10:10-12:00	<b>Alternative theories of oil prices</b> <b>Alessandro Roncaglia</b> (Professor Emeritus at the Sapienza University of Rome)
13:30-15:00	<b>Lunch Time</b>								
15:00-17:00	<b>Spatial data analysis for sustainable development</b> Dr. Manuel Santos Silva (Freie Universität Berlin-LAI)		15:00-17:00 <b>A Historical Overview of the Latin American Economy, 1875-2025</b> Dr. Alejandra Arredondo (Universidad Nacional Autónoma de México)	15:00-15:30	<b>Financial integration and finance-led dynamics in emerging and developing countries</b> Pr. Alberto Botta (University of Salerno) (Main hall)		15:00-17:00 <b>Competitiveness and policies for sustainable development: empirical tools</b> Dr. Chiara Grazini (UNITUS)	12:00-12:15	<b>Break</b>
				15:30-16:00				12:30-13:00	<b>Final Round Table on The political sustainability of ecological transition</b>
				16:00-16:15	<b>Break</b>			13:00-13:30	Closure
				16:15-17:30	<b>Research Colloquia WiSED 2026</b>				