






Advanced Skills Course ***Innovative Materials, Digital Transformation and Sustainability***

Developing Shared Knowledge in Innovative Materials and Digital Transformation for Sustainable Economy and Green Transition

March 12–18, 2026

 **First Session – Universidad Nacional de La Plata**
Museo de La Plata–Paseo del Bosque s/n La Plata
March 12–13 | 09:30 – 18:00
March 14 | 09:30 – 17:00

 **Second Session – Universidad Nacional de La Matanza**
Moreno 1623, Ciudad Autonoma de BA
March 16–17 | 09:30 – 18:00

 **Final Ceremony – Universidad de Buenos Aires**
Facultad de Farmacia y Bioquímica | Junin 954 Ciudad Autonoma de BA
March 18 | 09:30 – 13:00

English Version

The DeSK High-Level Training School (Developing Shared Knowledge for Sustainable and Digital Futures) aims to train researchers, professionals, and future leaders capable of addressing the challenges of the Green Deal and the green and digital transitions in an integrated and forward-looking way

The program offers an interdisciplinary pathway designed to develop advanced competences in sustainability and innovation, covering the entire chain of value creation – from the design of new eco-friendly materials to the use of Artificial Intelligence and digital technologies for material modeling, process optimization, and the development of sustainable and circular economic models with low environmental impact.

The School promotes a holistic approach to the green transition, where technological innovation, environmental awareness, and economic sustainability converge to support a new generation of professionals able to design and manage change in accordance with the principles of the circular and green economy.

In addition, the School introduces participants to the regulatory and policy frameworks shaping the global transition – from international agreements such as the Paris Climate Accord to the European Green Deal and EU Climate Law, together with comparative insights on EU and non-EU sustainability policies. This legal and economic perspective provides the foundation for innovation, responsible investment, and international cooperation in climate action.

Finally, the program also highlights the social and educational dimensions of sustainability, fostering the skills and awareness needed for citizens and communities to adapt to new lifestyles, work models, and consumption patterns consistent with the goals of a just and inclusive green transition.

Versione Italiana

La DeSK High-Level Training School (Developing Shared Knowledge for Sustainable and Digital Futures) si propone di formare ricercatori, professionisti e futuri leader capaci di affrontare le sfide del Green Deal e delle transizioni verde e digitale in modo integrato e proiettato verso il futuro

Il programma offre un percorso interdisciplinare volto a sviluppare competenze avanzate in materia di sostenibilità e innovazione, coprendo l'intera catena della creazione di valore – dalla progettazione di nuovi materiali ecocompatibili all'utilizzo dell'Intelligenza Artificiale e delle tecnologie digitali per la modellazione dei materiali, l'ottimizzazione dei processi e lo sviluppo di modelli economici sostenibili e circolari a basso impatto ambientale. La Scuola promuove un approccio olistico alla transizione verde, in cui innovazione tecnologica, consapevolezza ambientale ed economia sostenibile convergono per sostenere una nuova generazione di professionisti in grado di progettare e gestire il cambiamento in linea con i principi dell'economia verde e circolare.

Inoltre, la Scuola introduce i partecipanti ai quadri normativi e alle politiche che modellano la transizione globale – dagli accordi internazionali come l'Accordo di Parigi sul Clima al Green Deal europeo e alla Legge Europea sul Clima, includendo prospettive comparative tra le politiche di sostenibilità dei paesi UE e non UE. Questa prospettiva giuridica ed economica fornisce il contesto necessario per l'innovazione, gli investimenti responsabili e la cooperazione internazionale in materia di azione climatica.

Infine, il programma valorizza anche le dimensioni sociali ed educative della sostenibilità, promuovendo le competenze e la consapevolezza necessarie per aiutare cittadini e comunità ad adattarsi ai nuovi stili di vita, modelli di lavoro e comportamenti di consumo coerenti con gli obiettivi di una transizione verde giusta e inclusiva.

Versión en Español

La DeSK High-Level Training School (Developing Shared Knowledge for Sustainable and Digital Futures) tiene como objetivo formar investigadores, profesionales y futuros líderes capaces de afrontar los desafíos del Green Deal y de las transiciones verde y digital de manera integrada y con una visión de futuro.

El programa ofrece un recorrido interdisciplinario diseñado para desarrollar competencias avanzadas en sostenibilidad e innovación, abarcando toda la cadena de creación de valor — desde el diseño de nuevos materiales ecológicos hasta el uso de la Inteligencia Artificial y las tecnologías digitales para la modelización de materiales, la optimización de procesos y el desarrollo de modelos económicos sostenibles y circulares con bajo impacto ambiental.

La Escuela promueve un enfoque holístico hacia la transición verde, en el que la innovación tecnológica, la conciencia ambiental y la sostenibilidad económica convergen para apoyar a una nueva generación de profesionales capaces de diseñar y gestionar el cambio de acuerdo con los principios de la economía verde y circular.

Además, la Escuela introduce a los participantes en los marcos normativos y las políticas que configuran la transición global — desde acuerdos internacionales como el Acuerdo de París sobre el Clima hasta el Green Deal Europeo y la Ley del Clima de la UE, junto con perspectivas comparadas sobre las políticas de sostenibilidad de los países dentro y fuera de la UE. Esta perspectiva jurídica y económica proporciona la base para la innovación, la inversión responsable y la cooperación internacional en acción climática.

Finalmente, el programa también resalta las dimensiones sociales y educativas de la sostenibilidad, fomentando las habilidades y la conciencia necesarias para que los ciudadanos y las comunidades se adapten a nuevos estilos de vida, modelos de trabajo y patrones de consumo coherentes con los objetivos de una transición verde justa e inclusiva.



Session 1 – Museo de La Plata – FCNyM | *Paseo del Bosque s/n, La Plata*
Innovation, Digital Transformation and Global Sustainability Governance

Thursday, March 12

- 09:30 ● **Registration and Welcome Coffee**
- 10:30 ● **Opening Session – Institutional Welcome**
Theme: New Smart and Eco-Innovative Materials for the Green Transition
- 11:00 ● **Morning Lectures**
Lecture: Living materials for advanced sustainable technologies
Prof. GIANLUCA FARINOLA Università di Bari Aldo Moro, Italy

Lecture: Sustainable Hybrid Biomaterials: Biofunctional Interfaces and Stimuli-Responsive Networks
Prof. SIMONA CONCILIO Università degli Studi di Salerno, Italy
- 13:00 ● **Light Lunch**
- 14:30 ● **Afternoon Lectures**
Lecture: Smart Carbon Dots for Advanced Biomedical Application
Prof. NICOLÒ MAURO, Università di Palermo, Italy

Lecture: Environmentally friendly design for electrical systems. Key aspects of the energy transition
Mag. Ing. CARLOS WALL, Universidad Nacional de La Plata, Argentina
- 16:30 ● **Coffee Break**
- 17:00 ● **Panel discussion: “Sustainability in bio-based polymeric nanocomposites for coatings and adhesives design”**
Prof. PABLO PERUZZO, Universidad Nacional de La Plata
- 17:45 ● **Daily Wrap-up & Announcements**
- 18:00 ● **End of Activities**



Session 1 – Museo de La Plata – FCNyM | Paseo del Bosque s/n, La Plata
Innovation, Digital Transformation and Global Sustainability Governance

Friday, March 13

- 09:30 ● **Morning Lectures**
Lecture: AI-Driven Materials Discovery. From Data Pipelines to Predictive Design
Prof. STEFANO PIOTTO PIOTTO, Università degli Studi di Salerno, Italy
- Lecture: Artificial Intelligence, Digital Transformation and Process Innovation for Sustainable Transitions in Manufacturing and Services Industries*
Prof. FRANCESCO SCHIAVONE, Università degli Studi di Napoli PARTHENOPE, Italy
- 11:30 ● **Coffee Break**
- 12:00 ● **Morning Lectures**
Lecture: Cyber-security challenges in digital transformation: resilience and ethics
Prof. DANILO CAIVANO, Università degli Studi di Bari Aldo Moro, Italy
- 13:00 ● **Light Lunch**
- 14:30 ● **Afternoon Lectures**
Lecture: Legal Framework for the use of AI in Public Decision-Making
Prof. FEDERICO LACAVA Universidad de Concepción del Uruguay, Argentina
- Lecture: Digital Transition in Organizational Processes and Human Resource Management*
Prof. LUISA VARRIALE, Università degli Studi di Napoli PARTENOPE, Italy
- 16:30 ● **Coffee Break**
- 17:00 ● **Roundtable: "Ethics and technology in digital times"**
Dr. JAVIER DIAZ, Universidad Nacional de La Plata, Argentina
- 17:45 ● **Daily Wrap-up & Announcements**
- 18:00 ● **End of Activities**



Session 1 – Museo de La Plata – FCNyM | *Paseo del Bosque s/n, La Plata*
Innovation, Digital Transformation and Global Sustainability Governance

Saturday, March 14

- 09:30 ● **Morning Lectures**
Lecture: Global Environmental Law, Regional Sustainability Governance, and International Climate Agreements
Prof. MASSIMILIANO MONTINI, Università degli Studi di Siena, Italy
- Lecture: Climate Security in Latin America and Argentina: International and local actions in mitigation and adaptation strategy*
Prof. JULIANA GONZALEZ VARELA, Universidad Nacional de La Plata, Argentina
- 11:30 ● **Coffee Break**
- 12:00 ● **Morning Lectures**
Lecture: Fiscal Policy, International law of Human Rights, and its impact on environmental law
Prof. HORACIO CORTI, Universidad de Buenos Aires, Argentina
- 13:00 ● **Light Lunch**
- 14:30 ● **Afternoon Lectures**
Lecture: The Fight Against Climate Change Between State Political Decision-Making and Judicial Protection of Citizens. The Case of the Judgment of the Rome Tribunal of 26 February 2024
Prof. ANTONELLO LO CALZO Università di Pisa, Italy
- Lecture: Local Governance, science and water resource*
Dr. SILVIA SALA, Universidad Nacional de La Plata, Argentina
- 16:30 ● **Coffee Break**
- 17:00 ● **Visit to Museum & Networking Cocktail**
- 20:30 ● **End of Activities**



Session 2 – Universidad Nacional de La Matanza

Moreno 1623, Ciudad Autonoma de Buenos Aires

Green Economy, Policy, and Social Innovation for Sustainable Futures

Monday, March 16

- 09:30 ● **Morning Lectures**
Lecture: Exploring Scenarios and Policy Tools for a Just Ecological Transition
Prof. SIMONE D'ALESSANDRO, Università di Pisa, Italy
- Lecture: Hydrogen, ammonia, and urea as energy carriers, and the importance of energy efficiency*
Prof. Dr. LUIS FAUROUX, Universidad Nacional de La Matanza, Argentina
- 11:30 ● **Coffee Break**
- 12:00 ● **Morning Lectures**
Lecture: The Human Right to Sustainability: Criminal Justice, Environment, and Food Security in the Argentine Republic
Prof. FRANCO M. FIUMARA, Universidad Nacional de La Matanza, Argentina
- 13:00 ● **Light Lunch**
- 14:30 ● **Afternoon Lectures**
Lecture: Impact of nectar-inhabiting microbes in conservation biological control
Prof. STEFANO COLAZZA, Università degli Studi di Palermo, Italy
- Lecture: Environmental Monitoring: Gregorio de Laferrere Arroyo-Susana-La Matanza Nature Reserve -CMR*
Prof. PATRICIA YNSFRAN, Universidad Nacional de La Matanza, Argentina
- 16:30 ● **Coffee Break**
Lecture: Ensuring the Quality of Drinking Water in Acquedotto Pugliese through the Digitalization of the Water Safety Plan
Dr PIER PAOLO ABIS Acquedotto Pugliese srl
- 17:45 ● **Daily Wrap-up & Announcements**
- 18:00 ● **End of Activities**



Session 2 – Universidad Nacional de La Matanza

Moreno 1623, Ciudad Autónoma de Buenos Aires

Green Economy, Policy, and Social Innovation for Sustainable Futures

Tuesday, March 17

- 09:30 ● **Morning Lectures**
Lecture: City and climate change: learning from the European context
Prof. IGNAZIO VINCI, Università degli Studi di Palermo, Italy
- Lecture: Energy Poverty and the Just Energy Transition: Evidence-Based Policies for Inclusive Sustainability*
Prof. GIUSEPPE SCANDURRA, Università degli Studi di Napoli Parthenope, Italy
- 11:30 ● **Coffee Break**
- 12:00 ● **Morning Lectures**
Lecture: Comparative analysis of wind potential in the Río de La Plata area bordering the AMBA and Buenos Aires coast
Prof. Dr. PABLO PROVENZANO, Universidad Nacional de La Matanza, Argentina
- 13:00 ● **Light Lunch**
- 14:30 ● **Afternoon Lectures**
Lecture: Environmental protection and trade agreements: exploring the trade-off
Prof. Dr. DARIO MARTIN PEREYRA, Universidad Nacional de La Matanza, Argentina
- Lecture: Foundations for Ecological Macroeconomics*
Prof. GUILHERME SPINATO MORLIN, Università di Pisa, Italy
- 16:30 ● **Coffee Break**



17:00

Emerging Voices: Young Researchers and Innovative Paths to Sustainability
From Microencapsulation to 3D Scaffolds: Biomaterial Strategies for Cannabis-Derived Therapeutics

Dr. PABLO ANTEZANA, Universidad de Buenos Aires, Argentina

Safety-by-design and nanomedicine innovation for lung inflammatory conditions

Dr. MARIANA GARCES, Universidad de Buenos Aires, Argentina

Bacterial genomics for antimicrobial resistance surveillance in the era of artificial intelligence

Dr. DANIELA CEJAS, Universidad de Buenos Aires, Argentina

3D Printing oral formulations for pediatric: improving acceptability and administration

Dr. ORIANA BOSCOLO, Universidad de Buenos Aires, Argentina

Dr. CAMILA OLIVERA, Universidad de Buenos Aires, Argentina

18:30

Daily Wrap-up & Announcements

20:00

Social Dinner | Circulo Italiano - Buenos Aires- Libertad 1264

22:00

End of Activities



Final Ceremony – Facultad de Farmacia y Bioquímica,
Universidad de Buenos Aires
Junín 954, Ciudad Autónoma de Buenos Aires

Wednesday, March 18

- 09:30 ● **Morning Lecture**
Lecture: The silent killer. Underlying mechanisms of the adverse health effects caused by urban air pollution
Prof. PABLO EVELSON, Dean of the Faculty of Pharmacy and Biochemistry, Universidad de Buenos Aires, Argentina.
- 10:30 ● **Coffee Break**
- 11:00 ● **Overview of the Italian Partner Universities' educational programs**
Address by the Ambassador of Italy to Argentina
- 12:00 ● **Presentation of the DeSK Project Results and Outcomes**
- 12:30 ● **Final Ceremony**
·Delivery of DeSK Advanced Skills Certificates
- 13:00 ● **Closing Remarks & Group Photo**
- 13:30 ● **Light Lunch**
- 15:00 ● **End of Activities**

Desk Italian Consortium



Università degli Studi di Bari Aldo Moro



Università di Pisa



Università degli Studi di Palermo



Università degli Studi di Siena



Gran Sasso Science Institute



Università degli Studi di Salerno



Libera Università Mediterranea



Università degli Studi «G. D'Annunzio Chieti-Pescara»



Università degli Studi di Napoli «Parthenope»



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