17.4.1. Alexandria University – Meaningful Education on the Sustainable Development Goals

Alexandria University demonstrates its commitment to education for sustainable development through interdisciplinary learning, practical sustainability initiatives, student participation, and institutional engagement with the United Nations Sustainable Development Goals.

During 2025, university activities included the Green Circle Initiative at the Faculty of Pharmacy, interdisciplinary workshops addressing climate change and coastal resilience, and student-focused initiatives supporting educational quality and sustainable development.

These activities complement the University's broader commitment to incorporating sustainability into education, research, and community engagement. They provide practical opportunities for students and university communities to connect academic knowledge with environmental and societal challenges.

The accompanying photographs document examples of sustainability-related activities and institutional initiatives undertaken or reported during 2025

The following photographs illustrate Alexandria University's commitment to sustainability education through student engagement, interdisciplinary learning, practical environmental activities, and institutional initiatives.

1. Practical sustainability education – Green Circle Initiative, Faculty of Pharmacy



Photographs published in October 2025 showing participants in the Faculty of Pharmacy's Green Circle sustainability initiative.

The initiative promotes experiential learning through waste segregation, recycling, energy efficiency, water conservation, and environmentally responsible campus management. These activities help connect sustainability concepts with practical applications.



2. Sustainability education through interdisciplinary research

Visual reference for the April 2025 Flow and Foresight workshop; the displayed image is not independently authenticated as a photograph of that event.

On 18 April 2025, Alexandria University reported the conclusion of the Flow and Foresight workshop, organized by the Faculty of Engineering with international partners. It addressed climate change, coastal hazards, hydrodynamic processes, and resilience.

The activity illustrates the University's engagement with interdisciplinary approaches to environmental challenges.



3. Student education and engagement – Quality Education Initiative, November 2025

Visual reference; consult the official university article for authenticated event photographs.

On 27 November 2025, Alexandria University launched the New Beginning for Quality Assurance in Education initiative with the participation of more than 200 students. The initiative connects education quality and student participation with sustainable development objectives.

- Alexandria University adopts a sustainable land cover strategy that balances academic development with environmental protection across all campuses and international branches. The University's infrastructure planning prioritizes green conservation landscapes, efficient land utilization, and healthy learning environments that contribute to ecosystem resilience and climate change adaptation.
- The University has achieved 55.6% implementation of smart building technologies through the progressive integration of digital infrastructure and intelligent management systems across campus facilities. Key applications include QR code–based smart attendance systems, automated monitoring and reporting platforms, fire alarm and smoke detection systems, video surveillance, and digital access and safety controls. Training programs have also been conducted to support effective system adoption and operation. These initiatives contribute to improved operational efficiency, enhanced safety and security, reduced manual processes, and the advancement of a connected, data-driven campus environment promoting sustainability and climate action.
- Alexandria University has established a comprehensive portfolio of 26 innovative programs and projects that promote renewable energy, energy efficiency, climate change mitigation, and sustainable resource management. These initiatives integrate education, research, infrastructure, and community engagement through renewable energy centers, solar and wind power systems, green building technologies, biofuel research, circular economy projects, and international academic partnerships. The University operates renewable energy centers at the Faculty of Agriculture, Faculty of Science, and Faculty of Engineering, where hybrid solar–wind systems, photovoltaic installations, and Building-Integrated Photovoltaic (BIPV) technologies support both campus operations and applied research. In addition, Alexandria University offers specialized postgraduate programs in climate change, sustainable fisheries, natural resource sustainability, and the blue economy through Erasmus+ and other international collaborations. Campus sustainability projects, including the Green Cycle initiative, greywater recycling, energy-efficient buildings, solar power stations, and plastic recycling laboratories, further demonstrate the University's commitment to reducing carbon emissions, improving resource efficiency, and preparing graduates to address global environmental challenges.
- The University's commitment to waste reduction extends beyond campus operations through research, innovation, and community engagement. Alexandria University established the PECA Fab Lab for recycling plastic waste into new products using digital manufacturing technologies, while students and researchers have developed innovative projects such as converting used cooking oil into environmentally friendly plasticizers. Community initiatives, including beach-cleaning campaigns, recycling workshops, environmental awareness programs, and partnerships with national and international organizations, further promote responsible consumption, environmental stewardship, and public participation in SDG 13 – Climate Action, sustainability, and greenhouse gas emission reduction.
- The University's Central Laboratory and specialized research facilities perform chemical and physical analyses of water quality in accordance with internationally recognized standards, ensuring effective environmental monitoring and protecting surrounding

ecosystems. Community initiatives, including coastal cleanup campaigns, marine conservation activities, and environmental awareness programs, further strengthen the University's contribution to protecting aquatic environments and supporting climate change action.

- The University has implemented 22 sustainable transportation initiatives designed to reduce private vehicles and greenhouse gas emission levels. These include shuttle services, carpooling programs, bicycle parking facilities, pedestrian-friendly campus design, awareness campaigns, sustainable mobility competitions, smart parking management, and incentives encouraging environmentally responsible travel. Together, these initiatives help decrease traffic congestion, improve campus safety, and enhance air quality protection.
- Alexandria University continues to strengthen its role as a leading research institution by advancing high-impact sustainability research that addresses global environmental, social, and economic challenges. During the 2025 academic year, the University published 6,690 scholarly publications related to sustainability. These publications span a wide range of disciplines, including climate change, renewable energy, environmental protection, water resources, waste management, air pollution control, biodiversity conservation, ecosystem restoration, sustainable agriculture, and green technologies, reflecting the University's multidisciplinary approach to sustainable development.
- Research and innovation are supported through the Alexandria University Water Resilience Center of Excellence (AWR-CoE), which serves as a national platform for applied research, capacity building, professional training, and international collaboration. The Center advances sustainable water technologies through research on wastewater treatment, desalination, water reuse, circular economy approaches, and climate change resilience while offering specialized academic programs, workshops, scholarships, and partnerships with leading national and international institutions.



Natural Resources Sustainability for Land Development (Erasmus+ Project, European Union) in collaboration of Alexandria University (Egypt) with Aachen University (Germany)

Production of Bio-Diesel from Algae in Selected Mediterranean Countries: Med-Algae Project, Faculty of Science, Alexandria University, Egypt. Fuded by CBCMED-ENPI (CROSS BORDER COOPERATION IN THE MEDITERRANEAN-European Neighborhood and Partnership Instrument)





Smart Environmental Management of Climate Change in collaboration with Catania University, Italy. (AdapTm-Erasmus project) – Faculty of Science, Alexandria University, Egypt.

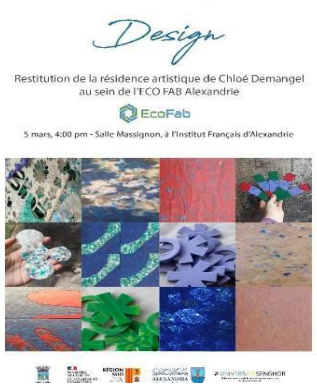


Sustainable Management of Fisheries and Aquaculture Science, in collaboration with University of Aveiro, Portugal (Erasmus+ Project, European Union) - Faculty of Science, Alexandria University, Egypt.



Alexandria University Center for Maritime Archaeology & Underwater Cultural Heritage was established as a European Union project under the EU-Tempus III Program

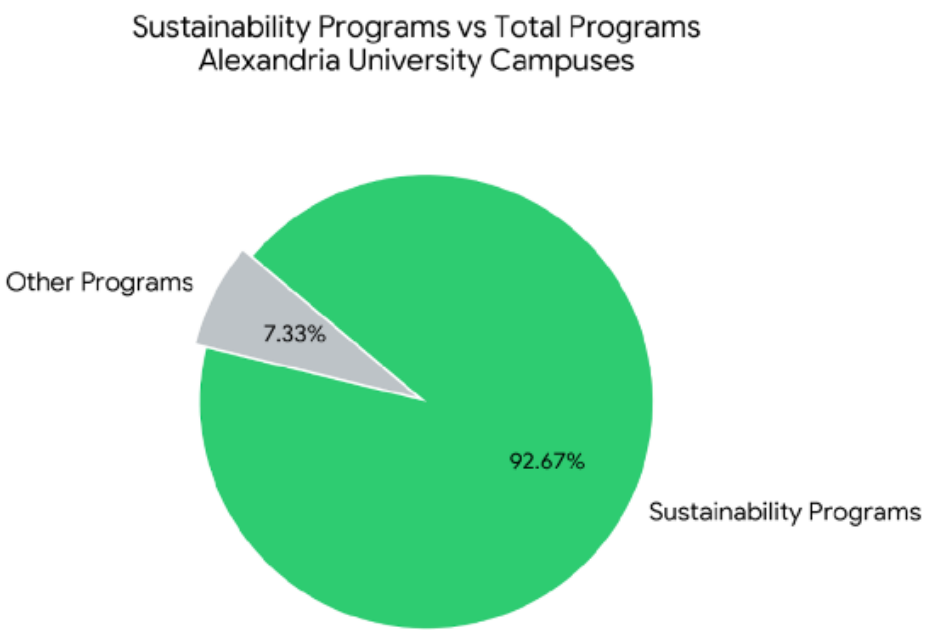






The Eco Fab is a fab lab dedicated to plastic recycling in Alexandria, Egypt and part of PECA project (Circular economy hub in alexandria).

- The University benefits from diverse funding sources, including national agencies such as the Science, Technology and Innovation Funding Authority (STDF) and the Academy of Scientific Research and Technology (ASRT), as well as international organizations including the European Union, Erasmus+, and other global research partners. Sustainable development initiatives also support researchers through publication strategy agreements, open-access assessment opportunities, and data systems published in both Arabic and English, several of which offer free solutions for policy researchers.


Sustainability Programs vs Total Programs
Alexandria University Campuses
Other Programs
7.33%
92.67%
Sustainability Programs