



Office for  
Sustainability

# THE LEBANESE AMERICAN UNIVERSITY **SUSTAINABLE DEVELOPMENT GOALS**

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2025 REPORT



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## OVERVIEW

The Lebanese American University (LAU) adopted a comprehensive and institutional approach to sustainability, guided by the university Strategic Plan IV (LAU SPIV, 2023-2028) and Sustainability Strategy aligning with the United Nations Agenda 2030. Through coordinated efforts across academic programs, research initiatives, community engagement, and operational practices, the university integrated sustainability into its core functions and decision-making processes.

This report presents a structured overview of LAU's contributions across the 17 Sustainable Development Goals (SDGs), highlighting key activities, programs, and initiatives implemented across its campuses and broader ecosystem. Each section reflects how these efforts were embedded within four strategic dimensions: Conscientious Education, Research for Sustainability, Community Engagement, Sustainable Stewardship of LAU Resources.

The documented activities demonstrate a progression from awareness and capacity building to applied impact, institutional practices, and external partnerships. Emphasis was placed on measurable outcomes, stakeholder engagement, and alignment with national and international standards.

By consolidating these efforts, the report reflects LAU's role in advancing sustainability within higher education in Lebanon, while contributing to broader social, environmental, and economic priorities. It also serves as a reference point for continuous improvement, enabling the university to strengthen its impact, enhance accountability, and expand its contribution to sustainable development.

GOAL

1

NO

POVERTY

*End poverty in all its forms everywhere.*

1 NO POVERTY



## Conscientious Education

### Economic Policy Talk Series

The Department of Economics at the School of Arts and Sciences hosted this series to equip students and faculty with evidence-based tools for addressing Lebanon's pressing institutional and municipal challenges. The Fall 2025 sessions featured key leaders who discussed the economic costs of ineffective water governance and the necessity of socio-economic reform grounded in public trust.

The initiative aimed to prepare economics students for leadership roles in government, private sector, and international organizations by strengthening policy analysis and governance literacy. It promoted sustainable economic policymaking and responsible governance and embedded sustainability-oriented economic reasoning into formal academic enrichment.

### Professional Real Estate Brokerage Program

The Academy of Continuing Education (ACE) developed and expanded a professional certification and diploma in real estate brokerage in partnership with REAL and the Ministry of Economy and Trade, aiming to equip participants with legal, financial, and technological skills to create sustainable businesses during economic instability. This initiative strengthens

income-generating capabilities and embeds sustainability and resilience into lifelong learning programs.

## Research for Sustainability

### Food Waste & Food Security Research and Panel

LAU faculty conducted Lebanon-specific research on food waste drivers and presented findings in collaboration with policymakers and UNEP experts, centering around Combatting Food Waste for Improved Food Security in Lebanon, and aiming to develop evidence-based interventions addressing food insecurity and waste inefficiencies. This work produced policy-relevant research addressing socioeconomic vulnerability.

## Community Engagement

### Outreach, Leadership & Empowerment (OLE)

OLE, which is an office at LAU stands as the university's flagship hub for student leadership development, delivers leadership training, soft skills development, volunteer opportunities, and international engagement programs, aiming to equip students with resilience and inclusive leadership competencies. This program promotes social mobility and civic leadership development, as it builds sustainability competencies within the student learning journey.

### SPARK Startup Accelerator

SPARK provides tailored mentorship, training workshops, and seed funding (up to \$10,000) to student and alumni entrepreneurs aiming to support scalable and impactful business models that respond to local economic challenges through sustainable entrepreneurship pathways and its external economic impact and venture incubation function.

### “Towards the End of Period Poverty” Initiative

Funded by MEPI-TLP and implemented with the Industrial Hub and AiW (Arab Institute for Women), students developed a machine to produce affordable sanitary pads. The objective was to reduce economic barriers affecting women's health and dignities, as it directly addresses a socioeconomic vulnerability affecting marginalized populations.

### Community Service & Engagement (CSE) Programming

CSE provides immersive service-learning programs enabling students to work directly with underserved communities. The purpose of this program is to cultivate socially responsible leaders while addressing community-level socioeconomic challenges through structured community engagement initiatives its extend institutional capacity directly into vulnerable communities.

### Volunteer Teachers Program with MMKN NGO

LAU students provide academic reinforcement in mathematics and science to public school students in partnership with MMKN NGO, aiming to strengthen foundational education among under-resourced youth by improving long-term educational outcomes for disadvantaged students and supports vulnerable educational communities.

### Financial Recovery Plan Dialogue with Deputy Prime Minister

LAU hosted Deputy Prime Minister Saade Chami for a public dialogue explaining Lebanon's financial recovery strategy. This dialogue aimed to foster transparency, public understanding, and

informed civic engagement on economic reform by promoting governance transparency and reform dialogue and bridging policymakers, academia, and the public.

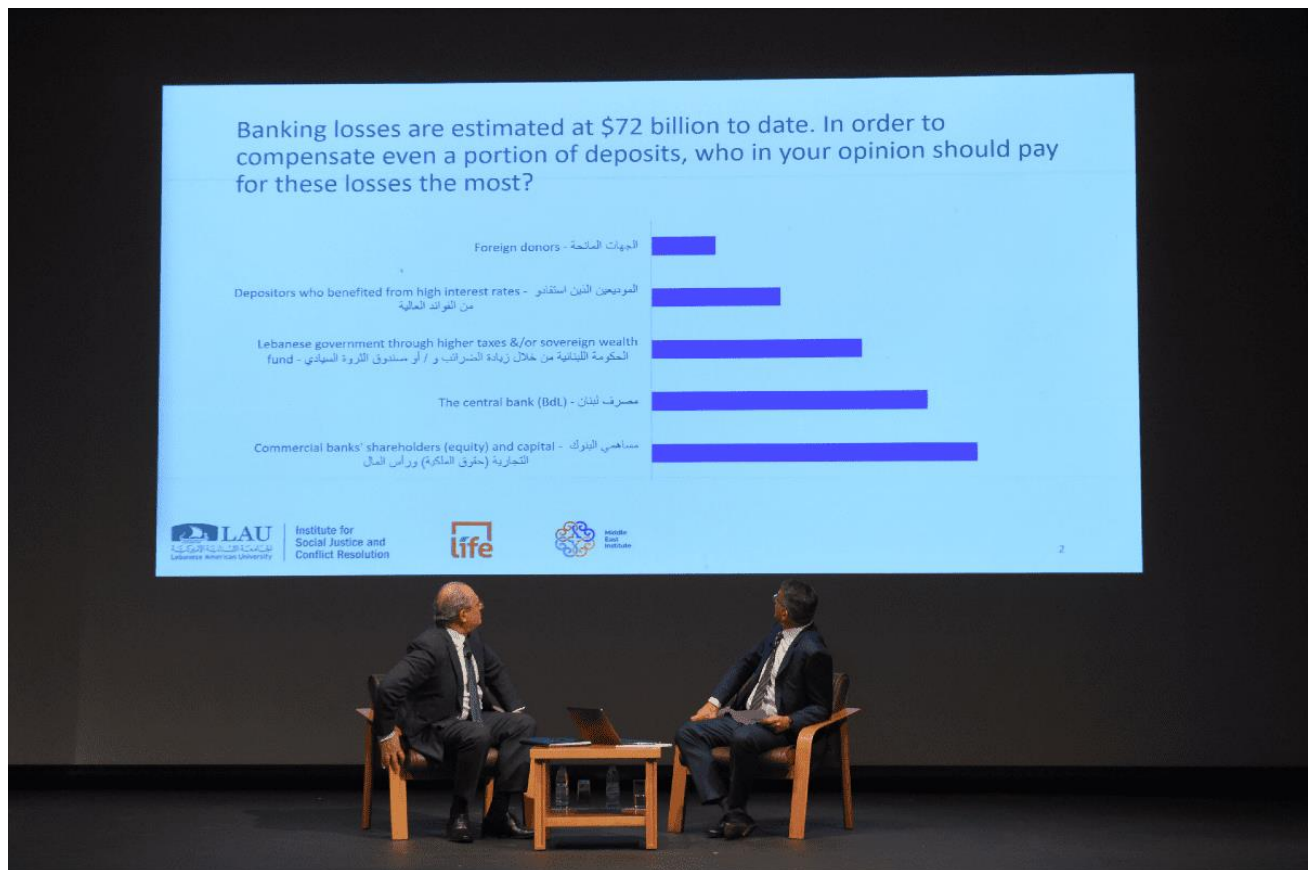


Figure 1: The discussion was driven by questions from online participants, interactive polls and a Q&A that reflected public sentiment on core social, financial and economic issues.

## Sustainable Stewardship of LAU Resources

### Emergency Financial Aid Fund

LAU established an Emergency Financial Aid Fund to support students during national crises, including Lebanon's economic collapse, the COVID-19 pandemic, the Beirut explosion, and recently the USAID funding issues. The objective of this fund was to ensure uninterrupted access to education for students facing sudden financial hardship by protecting equal access to economic resources and education during crisis conditions and reflects responsible financial resource allocation to safeguard stakeholder wellbeing.

### Need-Based Financial Aid & Hardship Grants

LAU allocates significant institutional funds to need-based grants, hardship grants (up to 100% tuition coverage), donor-funded scholarships, and educational loans. Such initiative aims to remove financial barriers and promote inclusive access to higher education regardless of socioeconomic background by expanding access to education as a poverty-reduction mechanism and reflecting institutional financial governance aimed at equity and inclusion.

### Educational Loan Program

LAU offers zero-interest educational loans during enrollment and reduced post-graduation rates with extended grace periods to provide structured financial planning tools to students with limited

liquidity. This program reflects LAU's commitment to improving access to financial services for education and through responsible financial structuring that supports long-term student resilience.

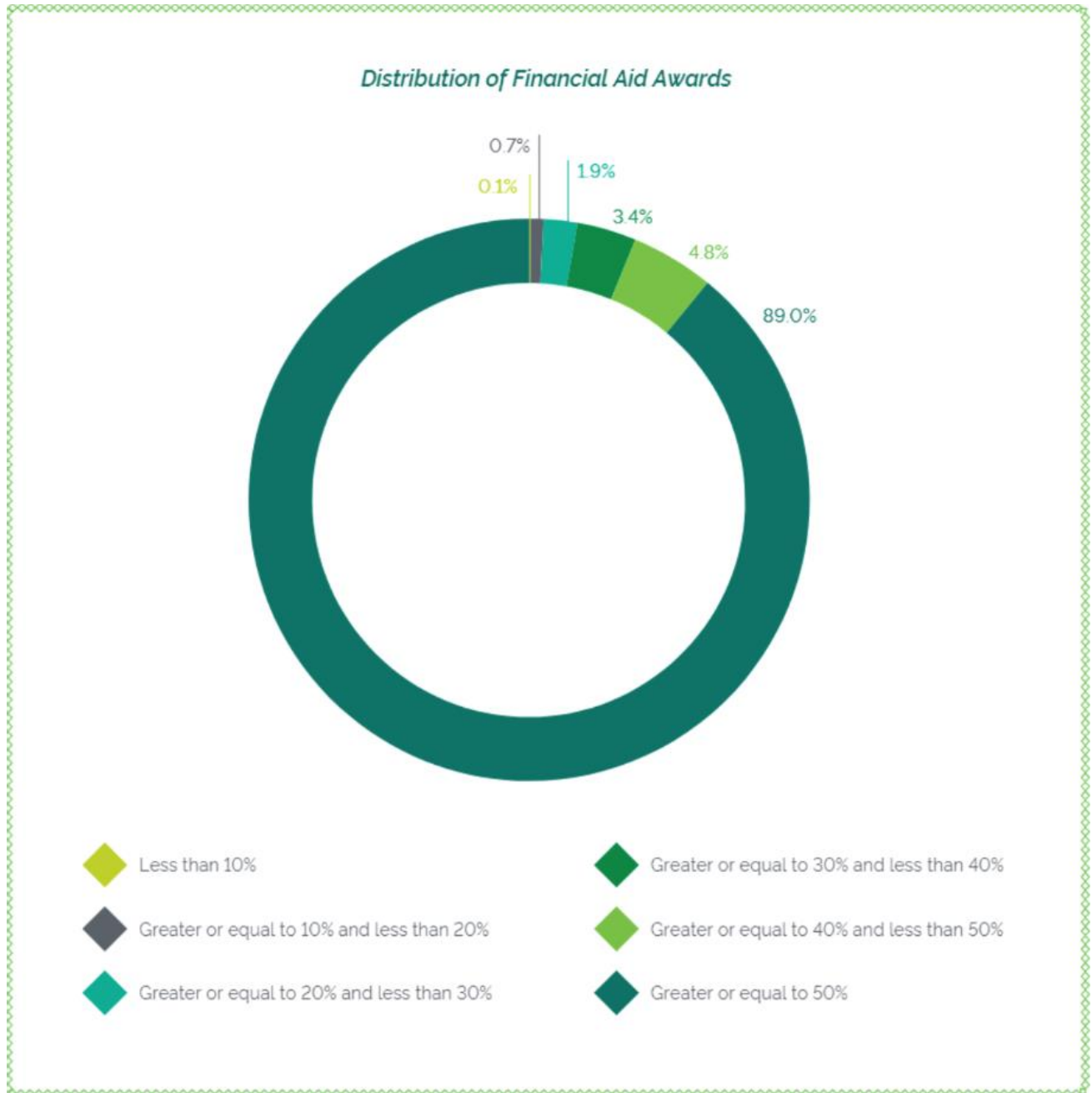


Figure 2: Sourced from the LAU Fact Book 2024-2025, student financial aid program (p: 61)

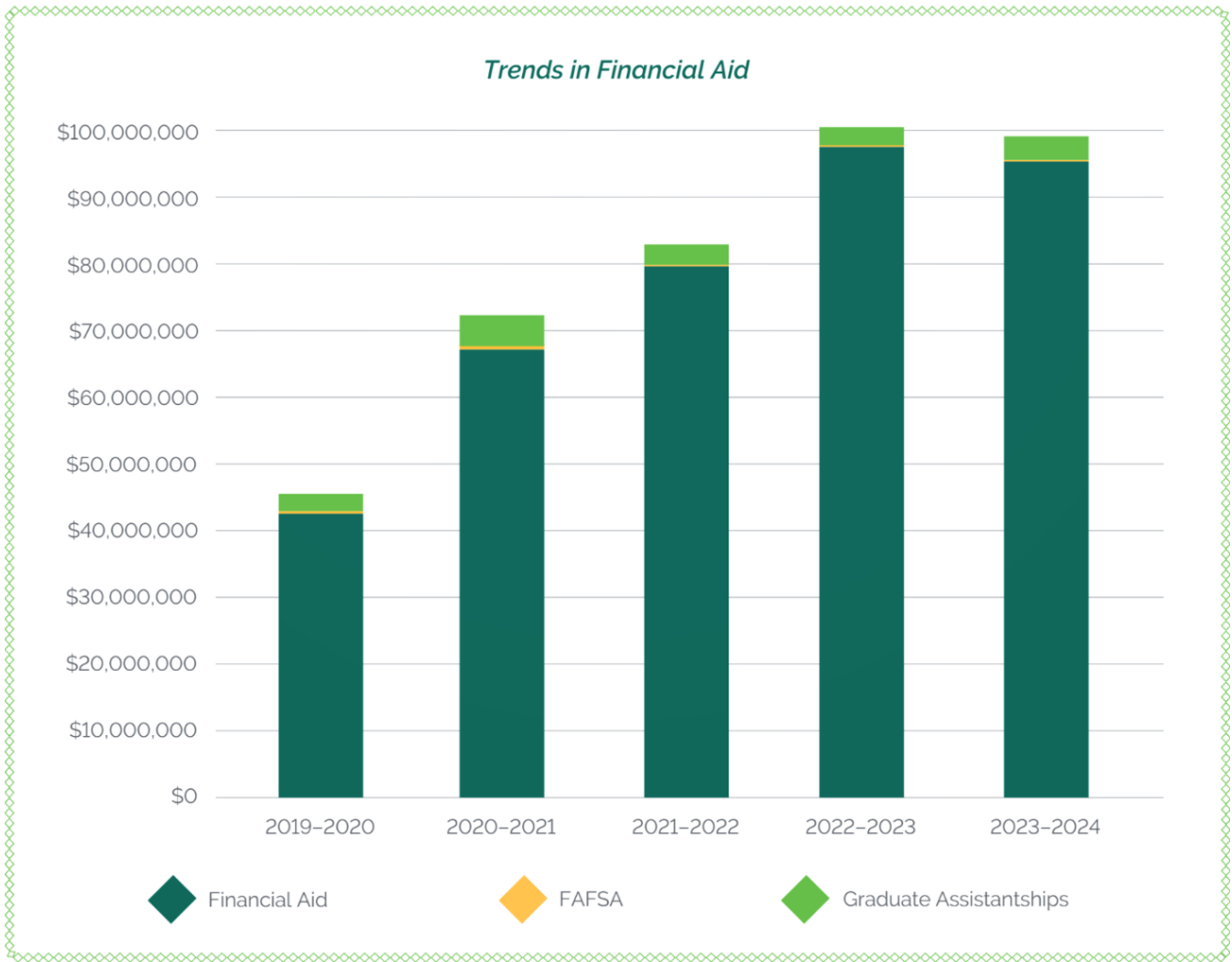


Figure 3: Sourced from the LAU Fact Book 2024-2025, student financial aid program (p: 62)

Table 1: Students on Financial Aid

Proportion of students receiving financial aid to attend university because of poverty	Number
Number of students	7,983
Number of low-income students receiving financial aid	7,281

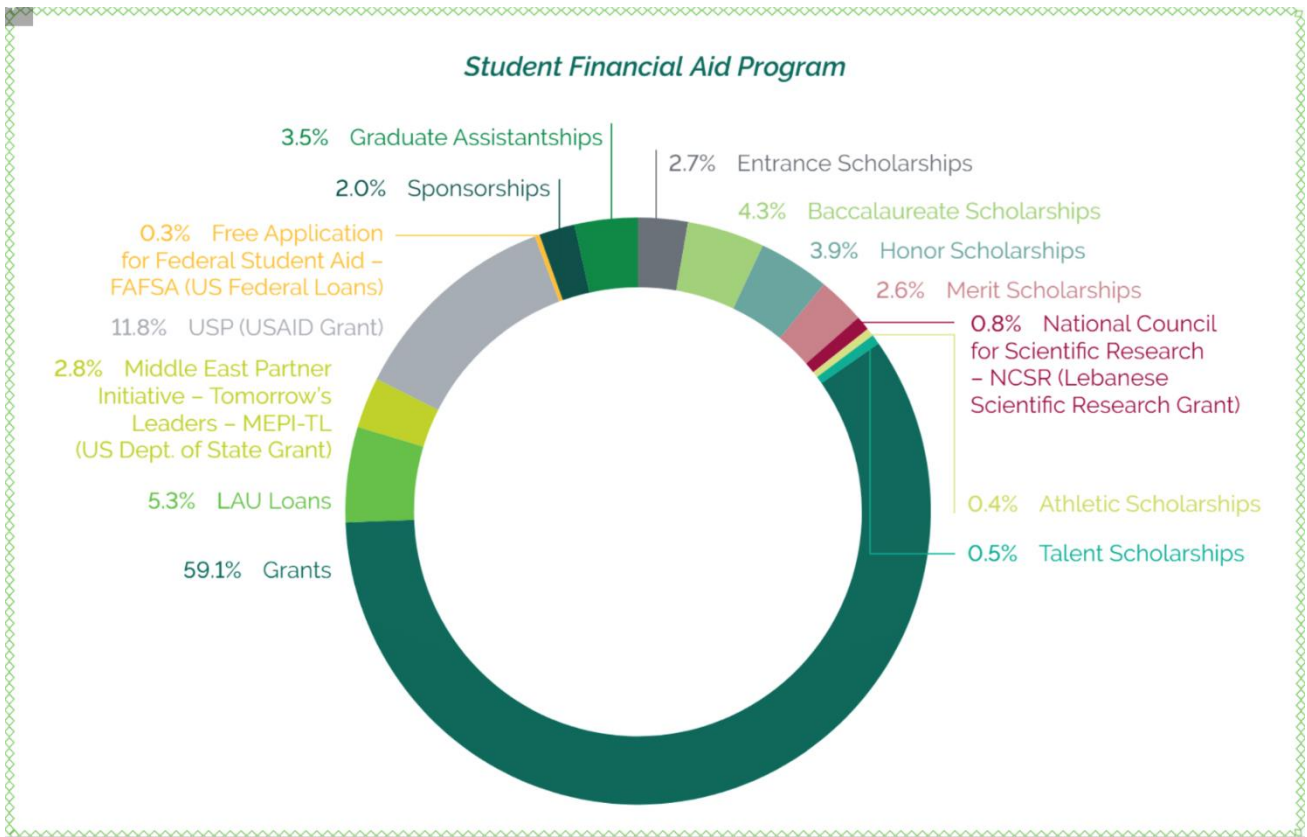


Figure 4: Sourced from the LAU Fact Book 2024-2025, student financial aid program (p: 60).

GOAL

2

ZERO  
HUNGER

*End hunger, achieve food security and improved nutrition and promote sustainable agriculture.*



## Conscientious Education

### Nutrition and Food Science Summer Camp

The School of Arts and Sciences organized a five-day immersive camp for high school students (Grades 10 and 11), combining interactive workshops and lectures on nutrients, food processing, preservation, and global development challenges. More than 100 students participated, with scholarships of up to 30 percent awarded to top performers.

The camp strengthened early awareness of food systems, nutrition science, and responsible consumption, while encouraging academic pathways in dietetics and food science.

This initiative's core role lies in embedding food security literacy and evidence-based thinking within pre-university learning experiences.

### Lactation and Nutrition Workshop

A hands-on lactation workshop was delivered to Nutrition and Dietetics students as part of the Nutrition in the Life Cycle course. Participants explored breastfeeding practices, maternal and infant health considerations, and practical counseling approaches within a clinical training environment.

By linking classroom theory to applied practice, the workshop reinforced the importance of early-life nutrition and preventive health, enhanced professional

competencies and prepared students to advocate for optimal nutritional practices in their future careers.

## **Minor in Food Science and Management**

The university offered an interdisciplinary minor integrating food science, business, marketing, food safety, and production systems. The program developed competencies in food spoilage prevention, safety systems implementation, and food enterprise management.

Through structured coursework, students gained technical and managerial knowledge required for responsible food service operations and informed decision-making through its curricular contribution to sustainable food systems knowledge and applied food safety principles.

## **Advanced Food Safety Management Certificate**

The Academy of Continuing Education (ACE) introduced a 40-hour Advanced Food Safety Management Certificate delivered online, equipping professionals with competencies in HACCP, ISO 22000:2018, hazard control, hygiene management, and internal auditing.

Endorsed by the Lebanese Ministry of Industry, the Lebanese Syndicate of Food Industrialists, and the General Union of Arab Chambers, it was launched as the first certificate of its kind in Lebanon. The program strengthened national food safety standards and professional capacity within the food sector.

## **Research for Sustainability**

### **Food Waste and Food Security Research Panel**

Lebanon-focused research examined food waste drivers at household and hospitality levels, estimating significant annual waste volumes in Beirut and their environmental and economic implications. Findings were presented during a joint academic panel addressing mitigation strategies and systemic reform.

The discussion connected empirical data to policy dialogue and public awareness on food loss reduction and food security resilience as it generated evidence-based insights to inform national discourse and structural interventions in food systems.

## **Community Engagement**

### **Student Award-Winning Food Security Proposals**

Nutrition students secured first and third prizes in a national competition addressing food insecurity and food production challenges. Winning proposals included valorizing apple by-products to extract pectin and developing a mobile application to reduce household food waste.

The projects combined scientific rigor with practical innovation, demonstrating scalable approaches to waste reduction and resource efficiency. The initiative contributes to research for sustainability theme due to its applied research orientation and measurable contribution to reducing food loss.

### **Student-Led Relief and Food Donation Campaigns**

During the escalation of conflict in Lebanon, students organized food and in-kind donation drives for displaced communities. Parcels containing food items and essential supplies were sorted on campus and distributed through national humanitarian organizations.

These coordinated efforts responded to urgent food insecurity while fostering solidarity and collective civic responsibility, as it directly supported vulnerable populations through organized outreach.

## **Annual Food Drives and Meal Preparation for the Lebanese Food Bank**

Nutrition students conducted yearly food collection campaigns and prepared meals through academic coursework, donating them to the Lebanese Food Bank.

This recurring engagement strengthened ties between academic programs and community-based food support structures.

## **Community Rotation and Tele-Nutrition Services**

As part of the coordinated internship program, students completed community rotations in local foundations and long-term care centers. During the COVID-19 crisis, tele-health nutrition consultations and online health education sessions were provided to pregnant and lactating women.

The initiative expanded access to nutritional guidance during a period of heightened vulnerability, as it reflects direct service provision beyond campus boundaries.

## **Food Waste Awareness Competition Award**

Nutrition students won a national poster competition on food waste prevention organized by the Ministry of Economy and Trade. The winning awareness design was displayed publicly across Lebanon.

The campaign highlighted inequitable food distribution and encouraged responsible consumption behaviors and extended awareness efforts to the broader public sphere.

## **Sustainable Stewardship of LAU Resources**

### **Sustainable Campus Food Services**

Campus cafeterias were operated by a certified professional caterer holding ISO 22000 or equivalent food safety certification. Menus accommodated diverse dietary needs, and selected items were offered at reduced prices to enhance affordability.

These operational standards ensured safe, accessible, and inclusive food provision for the university community and integrated food safety, affordability, and ethical management within daily campus operations.

### **Sustainable Purchasing Policy (PP-001)**

The updated procurement procedure, in 2024, formalized ethical sourcing requirements across all purchasing processes, including food supplies. The policy prioritized environmental considerations, transparency, and responsible supplier selection.

By embedding sustainability criteria into procurement decisions, the university strengthened accountability within its supply chain management, and institutional governance role in responsible consumption practices.

## Food Safety Training – Preventive Controls Program

In collaboration with an international development initiative, a multi-day food safety training was hosted on campus for students and professionals. Participants received certification after intensive instruction on preventive controls, inspection standards, and regulatory compliance.

The training elevated professional competence in safeguarding food supply systems as it strengthens institutional capacity and promotes responsible food management standards.



Figure 5: Dr. Fouladkhah engaged trainees in enhancing their understanding of preventive controls for food safety.

GOAL

3

## GOOD HEALTH AND WELLBEING

*Ensure healthy lives and promote well-being for all at all ages.*

3 GOOD HEALTH AND WELL-BEING



### Conscientious Education

#### School of Pharmacy Co-Curriculum Program

The School of Pharmacy implemented a structured co-curricular framework designed to develop competencies in advocacy, cultural humility, population health promotion, interprofessional collaboration, and leadership.

Activities ranged from workshops to service-learning experiences, reinforcing professional identity formation and patient-centered care skills across all professional years.

This program systematically embedded health equity, preventive care, and community health competencies within academic formation.

#### Access to Sexual and Reproductive Health Education

Academic courses and experiential learning modules addressed reproductive health, lactation, obstetrics, and preventive sexual health practices. Students gained both theoretical foundations and clinical exposure.

This educational integration ensured future healthcare professionals are prepared to support reproductive rights, maternal health, and disease prevention, as it strengthened structured curriculum-based health literacy and clinical preparedness.

## Research for Sustainability

### Lebanese Registry of Atopic Dermatitis (LebRAD)

LAU contributed to launching the first Lebanese Registry of Atopic Dermatitis in collaboration with the Global Atopic Dermatitis Atlas. The initiative established a structured database to track prevalence, clinical characteristics, and treatment patterns of patients in Lebanon.

By strengthening national epidemiological data infrastructure, the registry supported evidence-based dermatological research and informed clinical decision-making, as it directly contributes to health research systems and long-term disease monitoring.

### Rare Disease Day Genetic Research Contributions

Research breakthroughs in genetic conditions were highlighted on Rare Disease Day, reinforcing LAU's role in advancing diagnostic and translational medical research.

These contributions enhanced scientific understanding of rare disorders and supported improved clinical pathways and advanced biomedical research addressing complex health conditions.

### Obstetric Violence Perception Study (UNFPA-Funded)

A collaborative study examined perceptions of obstetric violence among healthcare professionals and students at affiliated medical centers. The research investigated gender-sensitive dimensions of perinatal care and aimed to inform policy reform through a rights-based framework.

From structured data collection and policy-oriented outcomes, findings were intended to contribute to a policy brief supporting systemic health-sector improvements.

### Food Waste and Environmental Health Research (Litani Basin and Related Projects)

Health-related sustainability research included environmental and waste-management initiatives with implications for public health protection. By addressing ecological determinants of health, these efforts connected environmental stewardship with community well-being, as it integrates environmental systems with public health outcomes.

## Community Engagement

### Emergency Preparedness Drill

A large-scale emergency simulation was conducted in collaboration with the Red Cross to test hospital readiness for mass casualty events. More than 100 simulated injuries were triaged, and revised communication protocols were implemented following prior crisis lessons.

The drill enhanced disaster response coordination and community-level emergency preparedness and strengthened public health resilience and institutional readiness to serve society during crises.



*Figure 6: Physicians, residents, students and other medical center staff honed their skills in effective training, zoning and dispatching of 100 volunteers portraying different injuries*

## **USAID-Supported Patient Safety Initiatives**

Initiatives supported by USAID focused on optimizing patient safety standards at the LAU Medical Center–Rizk Hospital. These programs reinforced clinical quality assurance mechanisms and improved healthcare delivery systems, through its operational impact on patient care and public health services.

## **Health Outreach and HES Community Projects**

Under the Higher Education Scholarship program, students implemented community-service projects addressing mental health, hygiene, fitness, environmental awareness, and women's well-being.

Projects such as "Together for a Better Health" and "Empower Her" targeted vulnerable groups, promoted preventive health education and directly served local communities beyond campus boundaries.

## **Sharing Sports Facilities with the Local Community**

LAU opened its sports infrastructure to the broader public through youth leagues, sports academies, swimming camps, and training programs.

These initiatives promoted physical fitness, teamwork, and preventive health among children and youth across Lebanon, as it extended university resources to enhance public well-being.

## **Mental Health Support Services**

Comprehensive mental health services were made available through counseling centers, employee assistance programs, and awareness workshops. The university integrated resilience-building programs into campus life, reducing stigma and promoting early support access through serving provision to students and staff.

## **Mind-Body Harmony Symposium**

In November 4, 2023, a cross-departmental symposium explored the interconnection between anxiety, physical health, and medical practice. The event brought together medical professionals, residents, and students for continuing education.

The initiative promoted holistic approaches to mental health screening and interdisciplinary collaboration fostering awareness and knowledge dissemination within the healthcare community.

## **Sustainable Stewardship of LAU Resources**

### **Campus Health Clinics (LAU HEALTH)**

Both campuses operate fully staffed health clinics providing wellness visits, psychosocial assessments, preventive screening, and sexual health education free of charge once annually for students.

The clinics ensure equitable access to primary care services within the university environment, reflecting institutional responsibility for internal health infrastructure.

### **Smoke-Free Campus Policy**

University-wide ban fully implemented September 26 (Policy announced July 25; smoke-free since 2011, fully enforced subsequently). The university transitioned to a fully smoke-free campus policy, prohibiting smoking across all indoor and outdoor premises. Enforcement mechanisms included disciplinary warnings and financial aid consequences.

GOAL

4

QUALITY  
EDUCATION

*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.*

4 QUALITY  
EDUCATION



The policy reinforced a culture of preventive health and respect for shared public spaces, as a governance-driven approach to protecting community health through institutional regulation. Conscientious Education

### Student-Led Simulation Models

Student-organized simulation programs such as Model United Nations and Model Arab League engaged more than 3,000 school students annually across Lebanon. Participants developed public speaking, diplomacy, research, and leadership skills through structured training prepared and delivered by LAU students.

These programs strengthened youth civic engagement and critical thinking while reinforcing peer-led learning models and directly cultivates leadership competencies and experiential learning within structured academic preparation.

### Summer and Boot Camps (Multi-Disciplinary)

On nearly annual basis, from July 1–5, the School of Arts and Sciences and the School of Engineering hosts immersive camps for middle and high school students across disciplines including chemistry, nutrition, renewable energy, computer science, mathematics, public speaking, creative writing, and robotics.

Students engaged in laboratory work, coding exercises, energy audits, and design challenges;

outstanding participants earned partial scholarships. The programs bridged secondary education and university life while encouraging informed academic pathways and embed university-level exposure, mentorship, and skill development into structured outreach learning environments.

### **Discover Engineering Summer Camp**

Approximately 200 high school students explored mechatronics, fluid dynamics, drilling simulation, and engineering design challenges. The week combined lectures, competitions, and collaborative projects to promote analytical reasoning and innovation.

The camp strengthened STEM exposure and problem-solving competencies while fostering teamwork and career awareness, reflecting structured academic enrichment and discipline-specific skill building.

### **Physics Energy and Sustainability Camp**

High school students studied electromagnetism, relativity, quantum physics, and energy systems including fossil fuels, hydropower, wind, and solar technologies. Participants conducted residential energy audits and examined carbon reduction practices.

The camp connected scientific theory to sustainability practice and real-world application through its curriculum-based scientific literacy development.

### **Executive Education and Vocational Programs**

The Academy of Continuing Education (ACE) delivered professional certifications and short-term programs across business, healthcare, technology, and other disciplines. These offerings supported adults seeking career advancement or skill acquisition.

By expanding access to lifelong learning opportunities, the programs enhanced professional mobility and workforce readiness through its formal educational structure and capacity-building role.

### **Keep Learning Alumni Webinar: Resilience in Extreme Contexts**

An executive webinar addressed leadership adaptation in crisis environments, providing professional development to alumni and executives across industries.

The session reinforced adaptive leadership skills and continuous learning within volatile contexts as part of structured lifelong learning engagement.

## **Research for Sustainability**

### **Faculty Research and International Collaboration**

Faculty members published (WHEN) scholarly work, collaborated with international institutions, and contributed to innovation-driven research aligned with societal needs.

These activities strengthened academic rigor, knowledge production, and global scholarly engagement, due to their contribution to advancing knowledge systems.

### **Virtual Exchange Program with Boise State University**

Lebanese and U.S. students collaborated virtually on innovation projects addressing global challenges. Through structured assignments, teams developed cross-cultural solutions and competed in innovation challenges, earning international recognition.

The program enhanced intercultural competence, collaborative problem-solving, and global academic exchange through research-based inquiry, innovation design, and international academic partnership.

## **Add some research from google scholar (Education with AI)**

### **Community Engagement**

#### **Educational Outreach Programs**

Faculty and students conducted workshops, seminars, and lectures with local schools and organizations in areas such as STEM, sustainability, and public health.

These initiatives extended university expertise into surrounding communities and supported equitable knowledge access, operating beyond campus boundaries.

#### **Volunteer Tutoring and Mentorship Initiatives**

Student-led groups organized tutoring, mentoring, and environmental activities in local communities. The initiatives strengthened academic support systems for youth while fostering civic responsibility among students through their direct outreach impact.

#### **World Robot Olympiad (WRO-Lebanon 2022)**

On August 6–7, 2022, LAU co-organized the national robotics competition, welcoming students from schools across Lebanon to compete in STEM innovation categories. Faculty served as judges, and volunteers supported technical coordination.

The event revived large-scale educational competitions after the economic crisis and pandemic disruptions, reinforcing STEM development nationwide and directly supporting national educational advancement beyond the university.

#### **Readers' Club Community Initiative**

The LAU Libraries Readers' Club partnered with local institutions to host book discussions for youth in rural communities.

The initiative promoted literacy, dialogue, and intellectual exchange among young participants outside campus settings, strengthening social responsibility through outreach literacy programs.



*Figure 7: The Readers' Club Engages Youth in Local Communities, By Sara Makarem, October 9, 2023*

## **Write to Remember Project**

Launched on the first anniversary of the August 4 explosion, a creative writing outreach initiative provided youth aged 16–22 with virtual workshops to process trauma and document oral history related to the Beirut explosion. Funded by a grant, the project created a digital archive of narratives, reflections, and open-mic sessions.

The initiative supported youth expression, emotional processing, and historical documentation, due to its outreach focus and direct support to affected communities.

## **Sustainable Stewardship of LAU Resources**

### **Scholarships and Financial Aid Programs**

The university provided institutional scholarships, need-based financial aid, and partial camp scholarships to ensure access to quality education regardless of financial background.

These measures reduced structural barriers to higher education and reinforced equity within admissions and enrollment processes, reflecting responsible financial governance to maintain educational accessibility.

### **Non-Discrimination and Harassment Prevention Policy**

Revised October 2, 2025, the updated policy reinforced equal opportunity, prohibited discrimination and harassment, and protected individuals reporting misconduct. It applied to faculty, staff, students, and visitors participating in university activities.

The revision strengthened institutional safeguards and promoted an inclusive academic environment, formalizing governance mechanisms and protecting equitable participation in education.

## **Public Access to Educational Resources**

University libraries provided free public access to books, journals, and databases. Public lectures, exhibitions, workshops, and conferences were hosted regularly and remained open to the wider community.

These initiatives expanded intellectual access beyond enrolled students and reinforced the university's public knowledge mission as part of institutional infrastructure supporting equitable access to learning resources.

GOAL

5

GENDER  
EQUALITY



*Achieve gender equality and empower all women and girls.*



## Conscientious Education

### Gender Equity Plan

LAU launched the first comprehensive Gender Equity Plan (GEP) in Lebanon in February 2022, developed by a 19-member committee representing diverse university sectors. Over one year, the committee conducted gender audits, stakeholder interviews, focus groups, and institutional data reviews to assess representation, promotion pathways, and pay equity.

The plan adopted a four-step framework: analysis, planning, implementation, and monitoring. It addressed decision-making representation, inclusive teaching practices, research equity, and institutional culture, while setting measurable indicators for long-term accountability.

### Mentorship and Leadership Development for Women

The university implemented structured mentoring and leadership support programs aimed at strengthening women's academic and professional advancement. Academic advising, one-on-one sessions, and Academic Success Center tutoring services ensured equal access to academic excellence.

Performance tracking demonstrated that women exhibited higher graduation likelihood and, on average, higher GPAs. These structured support

systems reinforced sustained participation and progression.

## Equal Access and Scholarship Programs

Through merit-based and need-based scholarship schemes, including the USAID Higher Education Scholarship Program, academically qualified students from disadvantaged backgrounds received full financial support. Nearly two-thirds of recipients were women.

The university systematically measured women's application and acceptance rates, using data analysis to guide access strategies and identify equity trends in enrollment.



Figure 8: The panel discussion focused on the opportunities and challenges shaping women's participation in decision-making positions in the Arab world.

## Research for Sustainability

### Gender Equity Institutional Audit and Data Review (2022–2023)

The Gender Equity Plan incorporated quantitative demographic analysis and qualitative climate surveys to examine leadership representation, governance transparency, and research funding disparities.

Recommendations included publishing annual gender representation data, standardizing promotion criteria, and encouraging gender-sensitive research design. This evidence-based institutional review established a long-term data governance model.

## Research on Family-Friendly Work Practices and Gendered Labor Impacts

As part of a national parental leave reform initiative, LAU faculty produced research papers and white papers addressing work productivity, maternal competence, and women's labor participation during crises.

Studies examined predictors of work productivity after childbirth and the impact of COVID-19 on women's employment. Findings informed both internal policy reform and national advocacy discussions.

## Tomorrow's Leaders Scholars Conference Participation

In the Third Annual MEPI-TL Conference – American University in Cairo, a total of 33 graduate scholars, three Gender Scholars, and two undergraduates delivered 38 research presentations across 19 panels and four debates. Topics included migration, education, gender equity, political participation, and economic reform.

Seven faculty members also participated in panel discussions. The conference strengthened academic discourse on gender representation and leadership in the region.



Figure 9: MEPI-TL students presented their research findings on the representation of women across 22 Arab countries.

## Community Engagement

### Women's Participation in Decision-Making Symposium

MEPI-TL Panel – Held at Irwin Hall, where a public symposium examined women's representation in political and public decision-making across the Arab world, with case studies from Tunisia and

Lebanon. Students conducted research on female representation across 22 Arab countries and presented findings through poster sessions.

The event gathered diplomats, policymakers, faculty, and students, and was livestreamed on social platforms. Discussions addressed quota systems, institutional barriers, and regional reform efforts.

## **Equality for Everyone: Gender Reform from Grassroots to Government**

On the Closing Ceremony – 16 December, led by the Arab Institute for Women in collaboration with the National Commission for Lebanese Women, the initiative drafted a parental leave law proposal endorsed by Members of Parliament and proposed to the Lebanese Parliament.

The advocacy campaign reached approximately 2.6 million people through television broadcasts and social media outreach. The project also engaged private companies and NGOs to review childcare and parental leave policies.

## **Egyptian Women Abroad Program (EWAP) Fellowship**

An LAU scholar participated in the Egyptian Women Abroad Program, a presidential fellowship aimed at increasing women's representation in STEM and leadership roles. The program provided advanced training, mentorship, and professional networking across government and academic sectors.

The fellow successfully defended her graduation project and participated in national-level knowledge-sharing sessions, strengthening regional female leadership pipelines.

## **Sustainable Stewardship of LAU Resources**

### **Revised Family Leave Policy**

Announced and submitted to the Board of Trustees in March 2022, that LAU extended maternity leave from 10 to 15 weeks and introduced a 10-day paternity leave, marking a first for Lebanese institutions. The policy revision formed part of a broader parental reform project advocating national legislative change.

The university positioned itself as a pilot institution for family-friendly workplace practices.

### **Discrimination, Harassment and Sexual Misconduct Prevention Policy**

Revised Effective October 2, 2025, the updated policy reinforced zero tolerance for discrimination and retaliation, explicitly protecting individuals who file grievances. It applies to students, faculty, staff, and visitors participating in university activities.

The policy ensures formal grievance processes, anti-retaliation safeguards, and institutional accountability mechanisms.

### **Monitoring Women's Representation in Governance**

Institutional data revealed decreasing female representation at senior leadership levels. The Gender Equity Plan recommended transparent appointment criteria, gender-balanced committees, and structured mentorship pathways to strengthen representation in decision-making bodies. Annual monitoring and reporting mechanisms were integrated to improve governance transparency.

GOAL

6

## CLEAN WATER AND SANITATION

*Ensure availability and sustainable management of water and sanitation for all.*



### Conscientious Education

#### Water Sustainability in Academic Programs

Through engineering, environmental science, and pharmacy curricula, students engaged with real-world challenges in wastewater treatment, water reuse, and environmental systems design.

Research participation, capstone projects, and laboratory work provided applied learning experiences connected to national water challenges.

#### Research for Sustainability

#### USAID-Funded Industrial Wastewater Treatment Project

In collaboration with Litani River Authority and Washington State University.

Engineering faculty developed an integrated bio-electrochemical reactor technology to treat agri-industrial wastewater in the Litani River Basin. The project introduced anaerobic digestion techniques capable of organic waste biodegradation while generating methane for electricity production.

The initiative aimed to reduce pollution, protect vulnerable communities from waterborne diseases, and improve national water supply resilience.

## **Sustainable Wastewater Treatment for Hospitals (SWaTH)**

Through an Erasmus+ Co-funded Project, the School of Pharmacy joined a three-year international consortium to improve hospital wastewater management in Lebanon, particularly addressing cytotoxic drug residues and dialysis wastewater.

The project facilitated knowledge transfer between European and Lebanese institutions and promoted safe medical wastewater practices aligned with international standards.

## **Environmental Engineering and Water Resources Research Cluster**

The School of Engineering established a research cluster dedicated to water quality, management, and sustainable systems. Research areas included contaminants, water conservation, supply systems, sustainable agriculture, and climate adaptation.

This cluster addressed Lebanon's structural water challenges, including pollution in lakes and rivers, drought vulnerability, and ecosystem degradation.

## **Community Engagement**

### **Water Conservation Awareness Campaign**

An awareness campaign promoted water-saving practices across campuses and dormitories. Posters were placed in restrooms and bulletin boards; a short educational video was broadcast on campus TV screens, the LAU website, and social media.

The campaign emphasized everyday behavioral changes, encouraging responsible consumption both on campus and at home.

### **"Every Drop Counts" Initiative**

The initiative encouraged simple daily conservation actions among students, faculty, and staff. Visual communication materials highlighted practical steps such as reduced shower times, faucet control, and leak reporting.

The campaign reinforced a culture of conscious water use within the university community.

### **Green Pledge Participation**

Community members committed to sustainable behaviors through the Green Pledge. To date, 384 individuals joined the Committed Green Community by formally pledging water conservation actions.

The pledge framework strengthened collective accountability and behavioral alignment with institutional sustainability goals.

### **Educational Outreach on Water Security**

LAU extended its impact beyond campus through workshops, research dissemination, and industry engagement under the Litani Basin project. Faculty urged industrial stakeholders to adopt new wastewater treatment technologies during the project's final workshop.

These engagements linked academic research with community-level implementation.

## Sustainable Stewardship of LAU Resources

### Wastewater Treatment Infrastructure – Byblos Campus

LAU operated two wastewater treatment plants at the Byblos campus: one serving the main campus with a current capacity of 210 m<sup>3</sup>/day (expandable to 420 m<sup>3</sup>/day), and another serving the residence halls with a capacity of approximately 70 m<sup>3</sup>/day. Treated wastewater was reused for irrigation and firefighting purposes.

These facilities reduced environmental discharge, supported irrigation needs, and strengthened campus-level water autonomy.

### Central Utility and Water Infrastructure Upgrade

A campus-wide infrastructure project, launched October 2015, replaced decentralized chilled and heating water systems with central power, district cooling, and district heating plants connected through utility tunnels. The system includes 12,660 KW chilled water capacity, 6,955 KW heating capacity, and 9 MW power capacity.

Separate stormwater and sanitary drainage networks were maintained. Three central sewage treatment plants in the valley (total capacity 190 m<sup>3</sup>/day) and one at Dorms B ensured treatment prior to reuse.



Figure 10: Utility Networks

### Water Pollution Prevention Measures

Containment dikes were constructed around fuel reservoirs to protect campus wells from contamination and prevent seepage into groundwater. Stormwater and sanitary drainage systems were separated to avoid cross-contamination.

These measures strengthened groundwater protection and reduced accidental pollution risks.



Figure 11: Fuel Tanks

### Drinking Water Fountain Rehabilitation

Drinking fountains were treated through central and end-point systems and distributed across campuses. During COVID-19, fountains were temporarily suspended; subsequently, bottle-filling systems were

installed at the Byblos campus to enhance hygiene and reduce PET bottle consumption. Water quality has been continuously monitored.



Figure 12: Drinking Fountains

## Water-Efficient Building Standards and Certifications

Water-saving devices were tested in offices and dormitories and later implemented campus-wide, achieving approximately 29% water savings. A comprehensive fixture survey was conducted, followed by the drafting of a water conservation master plan.

Three buildings secured green certifications:

- Library & Central Administration – LEED Gold (Certified June 25, 2020; 74 points)
- Tohme Rizk Building – EDGE certified
- Gezairi School of Architecture – EDGE certified

Design features included rainwater harvesting, condensate reuse, low-flow fixtures, and smart irrigation systems, reducing water use by up to 35%.

## Landscape Water Efficiency – Master Plan Framework

The University Master Plan established landscaping guidelines emphasizing drought-tolerant species, minimal lawn areas, tree canopy shading, and adaptive vegetation. Mature trees were relocated where possible to preserve biodiversity and reduce irrigation demand.

The Library & Central Administration project received full points for water-efficient landscaping under LEED evaluation.

## Water Reuse and Measurement Systems

At Byblos, treated wastewater and harvested rainwater were reused for irrigation. According to campus measurements (Factbook 2023–2024), reclaimed wastewater for irrigation reached 2,280 m<sup>3</sup>, while harvested rainwater totaled 1,055 m<sup>3</sup> at Byblos and 550 m<sup>3</sup> at Beirut.

	BEIRUT CAMPUS	BYBLOS CAMPUS
Total Water Consumption (m3)	34,000	65,000
Water Use Index WUI (L/student/y)	7.229	18.192
Water Cost Index WCI (\$/student/y)	28.05	1.21
Reclaimed Wastewater for Irrigation (m3)	N/A	2,280
Harvested Rainwater (m3)	550	1,055

Water consumption monitoring is managed by Physical Facilities, which tracks Water Use Index (WUI) and Water Cost Index (WCI) across campuses.

### Water Extraction and Irrigation Automation

On the Beirut campus, water storage capacity reached 2,200 m<sup>3</sup> across distributed tanks. Irrigation was supplemented by roof stormwater and condensate collection systems.

At Byblos, treated wastewater was prioritized for irrigation, with well water used only during shortages. Automation controls integrated into the Building Management System optimized allocation and minimized unnecessary extraction.

GOAL

7

## AFFORDABLE AND CLEAN ENERGY

*Ensure access to affordable, reliable, sustainable and modern energy for all.*

7 AFFORDABLE AND  
CLEAN ENERGY



### Conscientious Education

#### Integration of Energy and Climate Topics in Academic and Campus Life

Energy efficiency, carbon management, and green building standards were integrated into sustainability discussions and institutional planning. Students were exposed to practical examples of energy audits, performance tracking, and certification systems operating on their own campuses.

Through exposure to certified buildings and measurable performance data, energy literacy was reinforced in both formal and informal learning settings.

### Research for Sustainability

#### Sustainability Strategy – Energy Action Framework

The Sustainability Strategy, developed through consultations with academic and administrative units, established structured Sustainability Action Plans with defined short-, medium-, and long-term goals.

The framework assigned responsibilities across university units and included specific targets related to energy efficiency, management systems, and climate commitments.

The strategy was submitted for official endorsement and included measurable KPIs already being implemented.

## Community Engagement

### Energy Saving Awareness Campaign

Energy conservation campaigns promoted responsible energy use across campus. Visual communication materials and awareness messages encouraged behavioral change among students, faculty, and staff.

Campaign materials emphasized simple daily actions to reduce electricity consumption.

### Earth Hour Participation

LAU annually observed Earth Hour, encouraging the community to participate from home and on campus by reducing electricity use and raising awareness about climate responsibility.

The initiative reinforced collective participation in global environmental action.

### Green Calendar Initiative

The Green Calendar identified anchor sustainability days each semester and linked them to campus activities promoting energy awareness and environmentally responsible practices.

### The Green Pledge – Energy Commitment

Through the Green Pledge, members of the university community committed to small behavioral adjustments that collectively reduced energy demand. The pledge fostered shared accountability for resource conservation.

## Sustainable Stewardship of LAU Resources

### Campus-Wide Energy Performance Monitoring

LAU monitored campus-wide energy performance using standardized indicators. As reported, total annual energy consumption reached 23,497,981 kWh across 180,222 m<sup>2</sup> of university floor space, with an energy use density of 130 kWh/m<sup>2</sup>/year (performance table 2).

*Table 2: The following table presents key indicators used to monitor LAU's campus-wide energy performance.*

Energy use density	Number
Energy usage per sqm	130 kWh/m <sup>2</sup> /y
Total energy used	23,497,981 kWh
University floor space	180,222 m <sup>2</sup>

Tracking systems included energy use metrics, carbon emissions data, and energy intensity calculations to ensure transparency and continuous performance review.

## Carbon Emissions Tracking and Reporting

The university tracked Scope 1 and Scope 2 emissions for both campuses. Reported data showed:

Table 3: The below table shows results of the two passed years (<https://dira.lau.edu.lb/fact-book/>)

	2022-2023	2023-2024
Total Scope 1 (direct emissions)	7,381.39	13,327.29
Direct emissions at LAU facilities	7,152.25	13,098.15
Direct emissions from LAU vehicles	229.14	229.14
Total Scope 2 (indirect emissions from purchased electricity)	911.24	1,794.11
Indirect emissions from purchased electricity	911.24	1,794.11

These figures included direct emissions from facilities and vehicles, and indirect emissions from purchased electricity (emissions table 3). Continuous monitoring supported institutional planning toward carbon reduction.

### Green Building Certification – Energy Efficiency

The Library and Riyadh Nassar Central Administration building were constructed with LEED Gold certification (Byblos campus).

The Tohme-Rizk Building obtained EDGE certification, becoming the first EDGE-certified office building in Lebanon. The certification resulted in:

- 41% energy reduction
- 29% water reduction
- 34% reduction in embodied materials energy
- 21 tons of CO<sub>2</sub> avoided annually

Approximately \$600 monthly utility savings

These outcomes demonstrated measurable operational efficiency without additional capital cost.

### High-Performance Renovations

Energy conservation features were integrated into renovation projects, including:

- Architecture L1 renovation (Byblos campus)
- Wadad Khoury Student Center renovation (Beirut campus)

These projects incorporated improved insulation, optimized systems, and integrated energy-saving design features.

## **Development of Green Design Guidelines**

The university initiated the development of internal green design criteria tailored to institutional context, technical feasibility, and financial practicality. This initiative aimed to standardize sustainable solutions across all future campus projects.

## **Energy Consumption Reduction and Renewable Exploration**

LAU reported annual consumption of approximately 24 million kWh of electric energy and 5 million kWh of thermal energy, generating emissions comparable to roughly 7,000 cars.

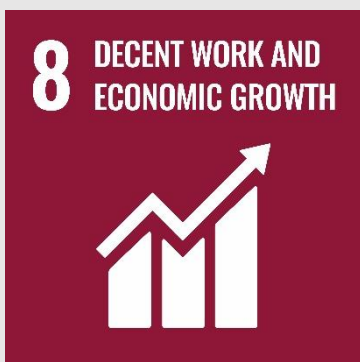
Facilities Management continued to explore renewable energy integration, energy audits, and efficiency upgrades to reduce overall demand.

GOAL

8

## DECENT WORK AND ECONOMIC GROWTH

*Promote sustained, inclusive and sustainable economic growth, full and productive and decent work for all.*



### Conscientious Education

#### Governance Literacy and Institutional Participation

Through structures such as the Faculty Senate and Staff Advisory Council, members of the university community engaged directly in governance processes, budget discussions, and policy review.

Participation mechanisms reinforced understanding of institutional management, collective decision-making, and rights-based frameworks within a professional setting.

### Research for Sustainability

#### Gender and Pay Analysis Study (AY 2022–2023)

The full-time staff gender and pay analysis served as an institutional research initiative assessing structural inequalities and compensation patterns. The study incorporated demographic analysis, pay scale evaluation, and leadership representation metrics.

Findings informed policy refinements under the Gender Equality Plan and reinforced data-driven governance.

### Arab Institute for Women

The Arab Institute for Women (AiW), originally founded as the Institute for Women's Studies in the

Arab World, advanced women's empowerment and economic participation through research, education, and outreach.

As one of the first university-affiliated institutes globally dedicated exclusively to women's rights, AiW bridged academic research and public advocacy at national and regional levels.

## Community Engagement

### Arab Institute for Women – Regional Advocacy and Outreach

AiW operated at the intersection of academia and activism, contributing to national and regional discourse on women's labor participation, economic inclusion, and workplace equality.

Through partnerships and public engagement initiatives, the institute supported broader economic empowerment strategies across Lebanon and the Arab region.

### Employment Equity Awareness and Policy Transparency

Public communication on pay scale equity, leadership representation, and gender workforce distribution increased institutional transparency. Workforce statistics were shared to demonstrate accountability and measurable progress

These efforts reinforced stakeholder trust and strengthened institutional credibility in advancing decent work standards.

## Sustainable Stewardship of LAU Resources

### Living Wage Commitment and Compensation Framework

The university adhered to Lebanese labor law requirements ensuring that all wages met or exceeded the official minimum wage and were paid in Lebanese currency, as stipulated in the Personnel Policy Staff Section (2022).

During Lebanon's financial crisis, compensation adjustments were introduced, benefits were partially reinstated, and healthcare packages were improved to preserve employee dignity and financial stability.

These measures reflected institutional resilience and a structured approach to maintaining fair employment standards under severe economic conditions.

### Equal Family Benefits Policy

In alignment with inclusive employment practices, schooling and health insurance benefits were extended to both married male and married female employees. Lebanese labor law mandates these benefits for married male employees; the university expanded coverage to eliminate gender disparity in family support.

This approach reinforced equitable access to benefits across the workforce.

### Employment Practices and Freedom of Association

The institution complied with Lebanese labor law and upheld employees' rights to join unions, syndicates, and professional orders, including the Orders of Engineers and Architects, Nurses, and Psychologists.

The Rights and Responsibilities Policy, approved by the Board of Trustees, guaranteed freedom of peaceful assembly, association, and equitable treatment, while encouraging participation in governance processes.

## **Faculty Senate**

The Faculty Senate functioned as the primary advisory body engaging faculty in governance decisions related to academics, faculty status, and budgeting. It comprised 34 elected senators, evenly representing Beirut and Byblos campuses (17 each), with representation proportional to faculty size per school. The Senate provided a formal channel for collective representation and academic oversight within institutional governance.

## **Staff Advisory Council**

The Staff Advisory Council enhanced communication between staff and administration, reviewed personnel policies, encouraged staff expression, and advised on professional development needs. Its mandate fostered institutional dialogue, policy refinement, and participatory governance mechanisms.

## **Discrimination, Harassment and Sexual Misconduct Prevention Policy**

The university enforced a comprehensive policy prohibiting discrimination based on religion, sexuality, gender, age, disability, ethnicity, or other protected characteristics.

The policy guaranteed academic freedom while establishing formal reporting procedures and grievance mechanisms. It reinforced zero tolerance toward discrimination and harassment and ensured structured complaint resolution processes.

## **Commitment Against Forced Labor, Modern Slavery, and Child Labor**

Institutional policy explicitly prohibited forced labor, human trafficking, child labor, and modern slavery. Compliance extended beyond internal operations to include partnerships and supply chains.

The Procurement Procedure and Subawards/Subrecipient Monitoring Policy required third parties to meet eligibility, legal, and ethical standards before engagement.

## **Outsourcing and Ethical Procurement Standards**

Procurement policies required fairness, transparency, and ethical sourcing. Third-party contractors were bound by labor standards aligned with institutional values emphasizing dignity, inclusivity, and equal opportunity.

Supplier eligibility and compliance provisions were clearly outlined under institutional procurement policies.

## **Gender Pay Gap Monitoring and Analysis**

Full-Time Staff Gender & Pay Analysis – AY 2022–2023

A comprehensive internal study assessed salary equity across full-time staff. Findings included:

- Workforce composition: 50.2% women; 49.8% men
- Unadjusted pay gap: 0.45%
- Age-adjusted comparison: 99.6 cents to the dollar (unadjusted) and 103.6 cents (age-adjusted).

	Unadjusted Pay Gap	Women			Men		
		% of Total	Average Age	Average Pay Unit	% of Total	Average Age	Average Pay Unit
Full Time Staff	<b>0.45%</b>	50.2%	46	LBP 25,082	49.8%	47.9	LBP 25,194

Figure 13: Unadjusted Gender Pay Gap:

	Unadjusted Pay Gap	Women			Men		
		% of Total	Average Age	Average Pay Unit	% of Total	Average Age	Average Pay Unit
Full Time Staff	<b>0.45%</b>	50.2%	46	LBP 25,082	49.8%	47.9	LBP 25,194

**Unadjusted  
Cents to a Dollar**

**99.6**

**Age-Adjusted  
Cents to a Dollar**

**103.6**

**Age-Adjustment Factor**

$$47.9 / 46 = 1.04$$

Figure 14: Adjusted Gender Pay Gap:

Women represented approximately 40% of leadership roles. The study supported ongoing monitoring under the Gender Equality Plan framework.

## Appeal and Grievance Process

Faculty and staff retained the right to submit grievances concerning discrimination, salary disputes, or employment conditions. Complaints could be filed in writing or through personal meetings.

A structured grievance procedure ensured fair and transparent resolution mechanisms.

GOAL

9

## INDUSTRY, INNOVATION AND INFRASTRUCTURE

*Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.*

9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



### Conscientious Education

#### Center for Innovative Learning (CIL)

The Center for Innovative Learning enhanced digital and interdisciplinary teaching practices by equipping faculty with tools to integrate technology and innovation into curricula.

The initiative strengthened digital literacy and pedagogical innovation across disciplines.

#### AI in Education – Faculty Development Program

2024

CIL launched a faculty training initiative focused on responsible integration of artificial intelligence into teaching. The program provided ethical frameworks, implementation toolkits, and practical applications for AI-enhanced learning environments.

This initiative reinforced technological literacy within academic instruction.

### Research for Sustainability

#### Memorandum of Understanding with the Association of Lebanese Industrialists

March 2024

The Department of Economics signed an MoU with the Association of Lebanese Industrialists (ALI) to

strengthen research collaboration and industrial competitiveness in Lebanon. The agreement established a framework for joint workshops, research grants, and applied policy analysis aligned with private-sector needs.

The partnership enhanced the alignment between academic economic research and industrial development strategies, while creating applied engagement opportunities for students.

## **Research & Development Partnerships – School of Engineering**

The School of Engineering formalized R&D partnerships with international and regional entities including BMW Group, CERN, C.A.T. Group, MEPI-TL College-to-Work Pipeline, and VIP+. These collaborations supported industry-funded research, professional certifications, and joint innovation initiatives.

Such partnerships strengthened technology transfer channels and expanded applied research capacity within engineering disciplines.

## **National Research Day – University Research Platform**

May 2023

LAU launched its inaugural University Research Day to showcase interdisciplinary research excellence across STEM, business, and social sciences. The event encouraged collaboration across schools and highlighted research outcomes with practical and industrial applications.

The initiative strengthened institutional research visibility and reinforced the link between academic inquiry and national innovation capacity.

## **National Recognition in Research Performance**

October 2023

LAU ranked top nationwide in Social Sciences (81.6%) and Engineering (78.2%) research quality. Academic staff distribution included 175 STEM faculty members, 243 in Medicine, and 283 in Arts, Humanities, and Social Sciences.

These indicators reflected a diversified research base capable of supporting industrial innovation and infrastructure development.

## **Community Engagement**

### **LAU Industrial Hub (LAUIH)**

The LAU Industrial Hub operated as the university's applied innovation platform, connecting students and researchers with private and public sector partners. The Hub provided prototyping facilities, digital fabrication resources, and advanced industrial training programs.

By integrating academic expertise with real-world industrial challenges, the Hub strengthened Lebanon's innovation ecosystem and enhanced workforce readiness.

### **LAU Industrial Hub – Iteration 360 Partnership**

A strategic partnership with Iteration 360, supported by Microsoft, provided students with certifications in Microsoft Dynamics and Power Tools. The initiative included internships and hands-on exposure to enterprise digital systems.

The collaboration expanded digital skill development and connected academic learning to market demand within Lebanon's technology sector.



Figure 15: The LAU Industrial Hub Partners with Iteration 360, By Raissa Batakji, September 12, 2023

## LAU Industrial Hub Advisory Council – Inaugural Meeting

January 2024

The Industrial Hub convened its first Advisory Council, bringing together industry experts, entrepreneurs, and academic leaders. The Council aligned training programs and research priorities with evolving market needs and innovation areas.

This structural governance step institutionalized long-term academia–industry dialogue.

## “Innovatus” – Annual Innovation Forum

2023

The Innovatus Forum convened innovators, investors, and entrepreneurs for startup showcases and discussions on emerging technologies. The event promoted networking across academic and industrial sectors while strengthening Lebanon's knowledge economy.

## Engineering Students Secure National Innovation Grants (IRALEB)

December 5, 2024

Two engineering teams received €10,000 grants each through the Industrial Research Achievements in Lebanon (IRALEB) program under the EU-funded Lebanon Innovate initiative.

One project developed a low-cost 3D-printed bionic ankle reducing prosthetic costs by up to 80%. The second created an AI-enabled micro-surface classification tool for semiconductor and sensor industries.

Both projects demonstrated the translation of applied research into industrially viable solutions.

## **Engineering Students Recognized by Murex**

July 2023

Global software firm Murex awarded \$4,500 in prizes to engineering capstone teams for innovative projects, including:

- Artemis – adaptive dependent-care system
- QLAUN – quadruped autonomous robot
- Software engineering excellence award

The long-standing partnership strengthened student exposure to multinational industry standards and reinforced applied engineering training.

## **Alumnus Leadership in Post-Explosion Reconstruction**

A mechanical engineering graduate was recognized on the Project Management Institute's Future 50 List for leading façade restoration projects in Beirut's post-explosion reconstruction. The work integrated project management systems, digital tools, and sustainable urban design practices in collaboration with government agencies and NGOs.

The example reflected the extended impact of LAU's engineering education on national infrastructure resilience.

## **Sustainable Stewardship of LAU Resources**

### **Innovation Infrastructure Platforms**

The establishment and operationalization of the LAU Industrial Hub, FMIC, and CIL represented structured institutional investment in innovation infrastructure. These platforms formalized pathways for prototyping, startup incubation, interdisciplinary learning, and industry collaboration.

Together, they strengthened the university's physical, digital, and governance infrastructure supporting innovation-led growth.

GOAL

10

REDUCED  
INEQUALITIES

*Reduce inequality within  
and among countries.*

10 REDUCED  
INEQUALITIES



GILBERT AND ROSE-MARIE CHAGOURY  
HEALTH SCIENCES CENTER

GILBERT AND ROSE-MARIE CHAGOURY SCHOOL OF MEDICINE  
ALICE RAMEZ CHAGOURY SCHOOL OF NURSING  
SCHOOL OF PHARMACY



## Conscientious Education

### Inclusive Admissions Policy and Gender Monitoring

The university admitted qualified students regardless of nationality, race, gender, or religious affiliation, while maintaining a historical commitment to expanding women's access to higher education. Admissions data for Fall 2023 reflected balanced gender participation:

- Undergraduate applicants: 3,952 female; 3,229 male
- Undergraduate enrolled: 1,104 female; 1,016 male
- Graduate enrolled: 162 female; 134 male
- Overall acceptance rates: 63.2% (female); 65.6% (male)

Gender-based application and admissions trends were systematically monitored to support equitable enrollment planning.

Table 4: Admissions by Gender - Fall 2023

Level	Received		Accepted		Enrolled		Acceptance Rate		Yield Rate	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Undergraduate	3,952	3,229	2,560	2,143	1,104	1,016	64.8%	66.4%	43.1%	47.4%
Graduate	517	341	259	204	162	134	50.1%	59.8%	62.5%	65.7%
Doctoral - Professional Practice	151	103	99	62	59	33	65.6%	60.2%	59.6%	53.2%
Total	4,620	3,673	2,918	2,409	1,325	1,183	63.2%	65.6%	45.4%	49.1%

### Academic Advising and Career Guidance Framework

Students received structured academic advising through Starfish and faculty mentoring systems. Services included degree planning, graduation tracking, academic difficulty intervention, and career preparation support.

Career Development Services guided students in major selection, internship placement, professional networking, CV preparation, and alumni mentoring engagement.

These coordinated advising systems supported equitable academic progression and workforce readiness.

### Academic Success Center – Free Tutoring Services

Free tutoring services were offered without session limits to students facing academic challenges. Tutors were high-performing students appointed by their departments.

The service aimed to improve academic performance, clarify complex course material, and support students at risk of underperformance.

### Writing Center – Academic Support for All

The Writing Center provided one-on-one and group tutoring, in person and virtually, for undergraduate, graduate, faculty, staff, and external community members. Support included structure, clarity, grammar, dissertation guidance, and research writing development.

Appointments were free for LAU members and available as paid consultancy for external participants.

## Research for Sustainability

### Gender Equality Monitoring and Institutional Data Tracking

The university systematically tracked admissions, enrollment, and gender distribution metrics to assess representation trends. Data collection informed policy refinement and inclusive enrollment strategies.

### Institutional Values and Strategic Framework

The university's mission, values, and vision emphasized dignity, inclusion, gender equality, civic engagement, and socio-economic diversity.

Strategic planning incorporated diversity targets, infrastructure accessibility commitments, and inclusive governance frameworks.

## Community Engagement

### Counseling Services – Free and Confidential Support

The Dean of Students' Offices offered short-term individual counseling, group sessions, crisis intervention, academic skills guidance, and career counseling free of charge. Sessions were confidential and not recorded in academic transcripts.

Support addressed anxiety, depression, adjustment challenges, grief, financial stress, academic pressure, and trauma-related experiences.

Awareness materials included guidance on coping with anxiety, mindfulness practices, war-time distress, and recovery from national crises.

### Faculty and Staff Engagement in Mental Health Support

Faculty and staff were engaged as associates within the Mental Health Support System. A structured guide helped identify signs of distress and facilitated referrals to counseling services.

This collaborative model strengthened early intervention and peer support mechanisms.

### Office of Community Standards (OCS)

The Office of Community Standards ensured a campus culture grounded in respect, inclusion, and accountability. It received and investigated complaints related to discrimination, harassment, and sexual misconduct.

Responsibilities included confidential consultation, training, prevention programs, and structured investigation procedures with appeal mechanisms.

The Discrimination, Harassment and Sexual Misconduct Prevention Policy was amended and approved by the Board of Trustees on October 2, 2025.

### Arab Institute for Women (Established 1973; ongoing operations)

The Arab Institute for Women advanced gender equality nationally and regionally through research, outreach, and development programs. It operated as a bridge, hub, and voice for gender issues in the Arab region, amplifying representation in international dialogue.

## **Sustainable Stewardship of LAU Resources**

### **Campus Accessibility Infrastructure (ADA Standards)**

Facilities Management incorporated accessibility standards into new construction and renovations from the earliest design stage. Campus Accessibility Plans (Beirut and Byblos) identified elevators, ramps, accessible pathways, and ADA-compliant restrooms.

Infrastructure upgrades included ramps, lifts, designated parking spaces, and extended exam accommodations for students with mobility challenges.

### **Compliance with Lebanese Law 220/2000**

The university adhered to Lebanese Law 220/2000 protecting the rights of individuals with disabilities. Institutional upgrades addressed accessibility gaps present in the broader national infrastructure context.

### **Health Clinics and Medical Insurance Coverage**

Registered nurses were available on each campus for first aid and medical guidance. All students were insured annually for medical emergencies and hospitalization, with fee exemptions for those already insured.

Health awareness campaigns were conducted annually to promote preventive care.

### **Secure Campus Environment**

Security personnel were stationed at campus gates 24/7. Surveillance systems monitored key circulation areas, including dormitories. Weapons, alcohol, and drugs were prohibited on campus.

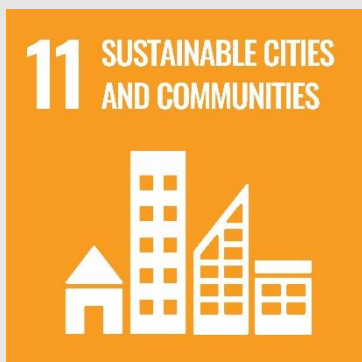
Safety measures aimed to ensure equitable access to secure learning environments for all community members.

GOAL

11

## SUSTAINABLE CITIES AND COMMUNITIES

*Make cities inclusive,  
safe, resilient and  
sustainable.*



### Conscientious Education

#### News as Heading 3

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas porttitor congue massa. Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

Nunc viverra imperdiet enim. Fusce est. Vivamus a tellus.

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Proin pharetra nonummy pede. Mauris et orci.

Aenean nec lorem. In porttitor. Donec laoreet nonummy augue.

Suspendisse dui purus, scelerisque at, vulputate vitae, pretium mattis, nunc. Mauris eget neque at sem venenatis eleifend. Ut nonummy.

### Research for Sustainability

#### UNESCO Heritage Landscape Workshop

Between January and June 2024, architecture alumni participated in an international workshop in Diriyah, Saudi Arabia, focusing on sustainable cultural landscape design within a UNESCO heritage site. Final designs were presented on June 7, 2024. Participants received international recognition and internship offers from leading architecture firms.

## Symposium on Graphic Design Education and Cultural Context

From February 29 to March 1, 2024, LAU co-organized a symposium examining colonial influences in Arab graphic design education. The event gathered scholars and practitioners to promote culturally grounded design narratives and academic reform.

## Research on Women in Contemporary Arab Art

A published study (1987) documented women's contributions to painting, sculpture, graphics, and ceramics in the Arab world, providing historical documentation and cultural scholarship.

## Community Engagement

### Art for Activism and Public Dialogue

The university hosted recurring Arts Competitions and 16 Days of Activism initiatives between 2020 and 2025, engaging students and external audiences in dialogue on social issues through visual arts and performance.

Selected events included:

- Arts Competition Winners (24/12/2018; 05/01/2021; 16/12/2021; 09/12/2022; 11/01/2024; 09/01/2025)
- 16 Days of Activism Arts Competitions (26/10/2020; 30/10/2021; 06/10/2022)
- Theater Performance: The Rite of Spring (16/10/2018)
- Play: Ana Mou Mazharieh (30/01/2019)
- Film Screening: Women in Time (03/06/2019)
- Screening of Ayyoubé (20/12/2019)

These initiatives created public spaces for cultural exchange, reflection, and social engagement.

### Film Screening: "Octopus"

On January 20, 2023, the Arab Institute for Women hosted a screening of the documentary Octopus, addressing the aftermath of the Beirut Port explosion. The event concluded with a Q&A session, encouraging collective reflection on national trauma.

### Theater Performance: "Let Us Play House (Beit Byout)"

On March 9, 2023, a theatrical performance portraying survivors of gender-based violence was hosted in collaboration with GIZ Lebanon. The production was followed by audience engagement and discussion, reinforcing the role of performing arts in community awareness.

## Centennial Cultural Programming

During March 2024, the university organized a three-week exhibition titled Centennial Exhibition: 100 Years of Knowledge (March 12–28, 2024), showcasing archival materials and documenting the evolution of LAU Libraries.

On March 4, 2024, the Center for Lebanese Heritage organized panel discussions and a concert honoring the Rahbani brothers and Fairouz, celebrating Lebanese cultural heritage.

On April 23, 2024, a memorial plaque unveiling, exhibition, and book launch honored Saloua Raouda Choucair at the Beirut campus.

## Graduate Fashion Show: Real Time

On June 12, 2023, the Fashion Design program organized the “Real Time” graduate fashion show at the Gezairi Building rooftop, in collaboration with ELIE SAAB, highlighting student innovation and creative industries engagement.

## OMT Frontliners Uniform Design Competition

On May 29, 2024, the Fashion Design program hosted an awards ceremony for students who redesigned uniforms for OMT frontliners across Lebanon. Five finalists were showcased, and three winners were announced following jury deliberation.



Figure 16: LAU Beirut, Gezairi Building, Art Gallery

## Library Partnership with Monsif International School

The university signed a formal subscription agreement granting Monsif International School students access to LAU Libraries, including training sessions on library use and research skills.

## Dr. Zahi Hakim Museum

In Spring 2019, a collection of X-ray tubes and radiology antiques was donated and established as a museum within the Chagoury Health Sciences building in Byblos. The museum remains open to visitors Monday–Friday.

## Library Visitor Access Policy

Libraries welcomed alumni, researchers, and external scholars under structured subscription guidelines, with formal entry procedures and defined visitor policies to ensure equitable research access.

## Sustainable Stewardship of LAU Resources

### Green Building Certification

On the Byblos campus, the Library and Riyad Nassar Central Administration buildings were constructed with USGBC LEED Gold certification in mind.

The Tohme-Rizk building obtained the International Finance Corporation's EDGE certification, becoming the first EDGE-certified office building in Lebanon. The project achieved reductions of 41% in energy consumption, 29% in water use, and 34% in materials' embodied energy compared to local benchmarks, resulting in approximately \$600 in monthly utility savings and reducing 21 tCO<sub>2</sub> annually.

### Gezairi Building EDGE Preliminary Certification

The Gezairi Building was awarded the EDGE Preliminary Certificate (Certificate issued April 9, 2020). The design achieved projected reductions of 28% in energy, 24% in water, and 27% in embodied energy in materials.

### High Performance Renovations

The Architecture L1 renovation in Byblos was designed and executed with energy conservation features.

The Wadad Sabbagh Khoury Student Center renovation in Beirut incorporated water and energy efficiency measures.

### Green Design Guidelines

The university initiated the development of green design criteria tailored to local context, building typologies, and financial feasibility. The framework aimed to institutionalize environmentally responsible design standards across future projects.

### Residence Halls – Safe and Inclusive Urban Living

Siran Towers and Santana Residence provided supervised, secure housing options within walking distance of campus. Both facilities offered 24/7 reception, CCTV surveillance, furnished units, and support staff, ensuring safe and structured student accommodation for the 2024–2025 academic year.

GOAL

12

## RESPONSIBLE CONSUMPTION AND PRODUCTION

*Ensure sustainable  
consumption and  
production patterns.*

12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



### Conscientious Education

#### Seminar on Pharmaceutical Waste – SWaTH Project

Under the Erasmus+ funded Sustainable Wastewater Treatment for Hospitals (SWaTH) project, the School of Pharmacy hosted a seminar on pharmaceutical waste management. The session addressed proper disposal of expired and unused medications, cytotoxic handling in hospitals, and the environmental risks associated with mismanagement.

Faculty and students also participated in mobility training at the University of Granada (2021), gaining exposure to advanced European wastewater treatment practices.

LAU led the pharmaceutical component of the SWaTH project by designing and implementing a national survey assessing wastewater management practices across 136 hospitals in Lebanon. Baseline findings were presented during the seminar.

#### Industrial Wastewater Research and Innovation

Research expertise from the School of Engineering contributed alternative approaches to industrial wastewater treatment. An eco-friendly anaerobic digestion technology was developed in collaboration with the Litani River Authority to improve wastewater management efficiency.

## Research for Sustainability

### National Wastewater Management Assessment

As part of SWaTH, LAU led the pharmaceutical dimension of a national survey assessing wastewater management practices across 136 Lebanese hospitals. Baseline assessment results were presented during the project seminar, contributing to national-level evidence generation.

### Capacity Building Through International Knowledge Exchange

The SWaTH framework facilitated structured mobility training and academic collaboration with European institutions, strengthening research capacity in sustainable wastewater treatment.

## Community Engagement

### Ethical Sourcing and Responsible Procurement (PP-001, 2024)

A formal Procurement Procedure (PP-001, 2024) established university-wide requirements for sustainability, transparency, ethical supplier selection, and social responsibility. All procurement decisions including food and supplies, were aligned with environmental and ethical standards.

### Awareness on Pharmaceutical Waste and Industry Engagement

The SWaTH seminar included participation from pharmaceutical manufacturers and healthcare professionals. Industry experts discussed pharmaceutical waste categories, environmental impact, and disposal technologies, strengthening knowledge transfer between academia and practice.

## Sustainable Stewardship of LAU Resources

### Hazardous Waste Management Plan

A Hazardous Waste Management Plan Committee was formed to develop a comprehensive plan covering both LAU and LAU Medical Center–Rizk Hospital.

In July 2024, hazardous waste international specialist Polyeco completed full segregation and packaging processes:

- 17 UN-approved 60L drums packed at LAU Medical Center–Rizk Hospital
- 120 UN-approved 60L drums packed at LAU Beirut Campus

A new 40-foot container was installed to secure interim storage, reducing fire risks and ensuring compliance with international standards.

### Recycling and Waste Management Program

A Facilities Management recycling committee conducted a full study and reported findings to the Recycling and Waste Management Committee. Paper, cardboard, glass, cans, and plastics were identified as primary recyclable materials and divided into two optimized streams:

- Paper and cardboard
- Glass, cans, and plastics

The program was implemented in 2015.

## **Drinking Water Bottle Filling Stations**

Selected buildings were equipped with drinking water bottle filling stations to reduce PET bottle consumption and promote reusable alternatives.

## **Recycling Partnership with Association l'Écoute**

After reviewing potential partners, the university selected Association l'Écoute, a nonprofit supporting individuals with hearing and mobility challenges.

Recycling proceeds contributed to funding hearing kits, medical services, and employment opportunities for beneficiaries. This partnership maximized both environmental and social impact.

GOAL

13

CLIMATE  
ACTION

*Take urgent action to combat climate change and its impacts.*

13 CLIMATE  
ACTION



## Conscientious Education

### Minor in Climate Change and Sustainability Policy

The interdisciplinary minor in Climate Change and Sustainability Policy was developed under the CLIMASP consortium agreement. It enabled undergraduate students from various majors to integrate climate adaptation, mitigation policy, and sustainability planning into their academic pathways.

The curriculum moved beyond natural sciences, incorporating economics, engineering, sociology, architecture, and public policy, equipping students with professional competencies in climate governance and planning.

### Minor in Environmental Science

Administered jointly by the Department of Civil Engineering and the Department of Natural Sciences, this interdisciplinary minor provided students with a broad conceptual framework for understanding environmental challenges from global, social, economic, and legal perspectives.

The program emphasized environmental ethics, pollution remediation, environmental impact assessment, and the interaction between human activity and natural resources.

## MS in Civil and Environmental Engineering

The master's program in Civil and Environmental Engineering offered emphases in environmental and water resources engineering, transportation, construction management, structural, and geotechnical engineering.

Students conducted thesis-based research, gaining advanced analytical and experimental expertise to address infrastructure resilience, environmental management, and climate-responsive engineering solutions.

## Environmental Laboratory Infrastructure

The Environmental Lab provided advanced equipment for water and wastewater analysis, air pollution monitoring, solid waste characterization, and environmental impact investigations. The facility supported academic instruction and applied research aligned with international testing standards.

## Sustainable Design and Climate-Responsive Architecture

The Institute for Environmental Studies and Research hosted a lecture by architect Anthony Brower, focusing on high-performance building design and climate-responsive architecture. The session examined evolving design patterns in the built environment and their implications for long-term climate resilience.

## Research for Sustainability

### Institute for Environmental Studies and Research

The Institute conducted studies on urban growth, land use strategies, transportation systems, building energy use, and preservation of natural areas. It provided environmental impact assessments for large-scale industrial and infrastructure projects and developed master plans for development and conservation areas.

## Carbon Emissions Monitoring and Reporting

The university systematically tracked Scope 1 and Scope 2 carbon emissions across Beirut and Byblos campuses.

This monitoring framework supported data-driven decision-making toward carbon neutrality.

	2022-2023	2023-2024
Total Scope 1 (direct emissions)	7,381.39	13,327.29
Direct emissions at LAU facilities	7,152.25	13,098.15
Direct emissions from LAU vehicles	229.14	229.14
Total Scope 2 (indirect emissions from purchased electricity)	911.24	1,794.11
Indirect emissions from purchased electricity	911.24	1,794.11

## **Energy Profile and Low-Carbon Transition**

Total energy consumption reached 76,550 GJ, of which 7,365 GJ were generated from low-carbon sources.

The university monitored energy and water performance indicators to evaluate progress toward cleaner energy adoption.

## **Disaster Preparedness and Robotics Innovation**

Under the Disaster Assistance and Response (DARR) initiative, a robotics-based competition engaged students in designing tools for disaster-response scenarios.

In parallel, emergency-medicine leadership conducted nationwide mass-casualty preparedness training, strengthening institutional capacity in climate-related disaster response.

## **Community Engagement**

### **Climate and Gender Webinar**

On February 13, 2023, a webinar titled "Gender and the Environment" was organized as part of the Food 4 Thought speaking series in collaboration with regional partners.

Speakers from environmental NGOs and climate activism networks discussed zero-waste initiatives, grassroots waste management, and the relationship between environmental degradation and social vulnerability. The session concluded with an open Q&A.

### **Nationwide Disaster Preparedness Training**

Emergency response training sessions were delivered to national stakeholders, strengthening coordination mechanisms in health and disaster management systems.

### **Green Awareness Campaign**

A campus-wide awareness campaign promoted energy and water conservation practices.

Posters were displayed in restrooms and bulletin boards, accompanied by short educational videos broadcast on campus screens and digital platforms. The campaign encouraged responsible consumption behaviors both on campus and at home.

### **Green Pledge and Green Calendar**

The Green Pledge encouraged students, faculty, and staff to commit to small daily behavioral changes that collectively reduce environmental impact.

The Green Calendar designated one anchor sustainability day per semester and linked it to community-wide environmental activities.

### **Earth Hour Participation**

The university annually observed Earth Hour, reinforcing climate awareness and collective responsibility within the campus community.

## Sustainable Stewardship of LAU Resources

### Renewable Energy Integration

The Byblos Library and Riyadh Nassar Central Administration buildings incorporated solar power and solar hot water systems. A solar tracking system was included to optimize generation efficiency.

The Wadad Sabbagh Khoury Student Center in Beirut was equipped with a solar water heating system. Preliminary studies were conducted to expand solar water heating to the Beirut indoor pool and Byblos dormitories.

### Energy Efficiency Infrastructure

Several renovated classrooms and offices were equipped with occupancy sensors regulating lighting and air conditioning.

CO sensors controlled ventilation systems in the Byblos underground parking facility based on pollution levels.

Low-consumption lighting fixtures were progressively installed across campuses.

### Water Conservation and Reuse

The university implemented rainwater harvesting and wastewater reuse systems, particularly on the Byblos campus. Treated wastewater was reused for irrigation.

The Tohme-Rizk building piloted water-saving devices, achieving approximately 29% savings.

Low-flow sanitary fixtures in the Byblos Library and Riyadh Nassar Central Administration building achieved 35% water use reduction.

Annual water consumption reached approximately 100,000 m<sup>3</sup>, with reclaimed wastewater for irrigation reaching 2,280 m<sup>3</sup> in Byblos and harvested rainwater reaching 1,050 m<sup>3</sup>.

### Strategic Sustainability Action Plan

The Sustainability Strategy established short-, medium-, and long-term climate action targets, defined institutional responsibilities, and integrated energy and water performance metrics into operational planning.

The strategy framework aligned governance, facilities management, academic programs, and community initiatives within a unified climate action roadmap.

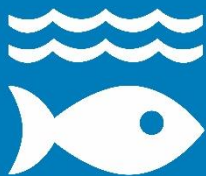
GOAL

14

## LIFE BELOW WATER

*Conserve and sustainably use oceans, seas and marine resources for sustainable development.*

14 LIFE BELOW WATER



### Conscientious Education

#### Biology Curriculum on Aquatic and Marine Ecosystems

Biology courses (BIO201, BIO202, BIO345, BIO401, BIO410 and others) examined marine biology, aquatic ecosystems, biodiversity conservation, and the ecological challenges affecting marine life.

Through theoretical foundations and laboratory practice, students developed an understanding of species interdependence, pollution pathways, and conservation strategies, preparing graduates to engage in marine and freshwater protection efforts.

#### Advanced Biology Courses on Water Quality and Microbial Systems

Courses such as BIO311, BIO312, and BIO420 addressed microbiology, virology, and biological processes influencing water quality.

Students analyzed waterborne pathogens, aquatic ecosystem dynamics, and sanitation-related biological mechanisms, strengthening capacity in water quality monitoring and ecosystem preservation.

#### LAS201 – Water Security

The Liberal Arts & Sciences course “Water Security” provided a comprehensive examination of water scarcity, access, governance, and the Water-Energy-Food Nexus.

Students explored policy approaches and management strategies addressing water sustainability challenges at national and global levels.

## **Vertically Integrated Projects Plus (VIP+) – Smart Irrigation System**

Under the VIP+ multidisciplinary framework, students from Biology, Engineering, Computer Science, and Marketing developed a Smart Irrigation System.



*Figure 17: 2024 VIP Consortium Meeting – Georgia Tech*

The project incorporated sensors monitoring soil humidity, temperature, NPK levels, and pH, automatically regulating irrigation pumps. Real-time data transmission through LoRa technology enabled mobile application control.

The system reduced water waste while supporting sustainable agricultural productivity.

## **MS in Civil and Environmental Engineering – Water and Environmental**

The Environmental and Water Resources emphasis within the master's program trained students in advanced wastewater treatment, hydrology, and environmental systems engineering.

Thesis-based research addressed aquatic resource management, pollution mitigation, and infrastructure solutions aligned with regional water challenges.

## **Environmental Laboratory Infrastructure**

The Environmental Lab supported analysis of water quality parameters, wastewater treatment processes, solid waste characterization, and environmental impact monitoring.

Equipment included sediment samplers, UV-visible spectrophotometers, fluorometers, gas meters, and mobile air-quality monitoring stations, strengthening applied research on aquatic ecosystems.

## Research for Sustainability

### Litani Basin Industrial Wastewater Treatment Project

In partnership with the Litani River Authority, the university launched a multi-phase wastewater treatment initiative addressing severe organic and industrial pollution in the Litani River Basin.

The project employed anaerobic digestion technology converting organic waste into methane while treating wastewater. The first phase involved wastewater sampling from local food industries and laboratory validation of mono- and co-digestion processes.

The second phase introduced an integrated bio-electrochemical reactor developed with Washington State University, improving treatment efficiency and expanding research training opportunities.

A USAID-sponsored workshop held on December 6, 2023, gathered industry leaders, engineers, NGOs, and policymakers to discuss pilot results and national wastewater standards.

### Research on Pharmaceutical By-products in Surface Waters

During Research Day 2024, a poster presentation addressed contamination of surface waters by pharmaceutical by-products, examining monitoring techniques and mitigation strategies relevant to watershed and marine pollution pathways.

### SWaTH Project – Pharmaceutical Waste and Water Protection

Within the Erasmus+ SWaTH project, the university led the pharmaceutical component of a national survey covering 136 hospitals to assess wastewater management practices.

A national seminar hosted by the School of Pharmacy and the School of Engineering addressed pharmaceutical waste disposal, hospital wastewater treatment, and industrial practices influencing aquatic ecosystems.

## Community Engagement

### Raising Awareness on Marine Life

Students partnered with Water People and the LAU Environmental Club to organize a hands-on coastal conservation awareness initiative.

Live sea urchins, educational booths, and protection messages sensitized participants to marine biodiversity, species care, and coastal stewardship practices.

### Entrepreneurship and Innovation Competition – Water Management

A university innovation competition, on May 23, 2024, highlighted applied solutions in water management and sustainability, encouraging students to translate environmental research into entrepreneurial action relevant to aquatic protection.

### Water Conservation Awareness Campaign

A campus-wide campaign promoted responsible water use through posters, digital displays, and short educational videos.

Community members received practical guidance on reducing water waste on campus, in dormitories, and at home.

## **Sustainable Stewardship of LAU Resources**

### **On-site Wastewater Treatment Plants**

Three central sewage treatment plants in the valley (total capacity 190 m<sup>3</sup>/day) and one plant at Dorms B treated campus wastewater prior to reuse for irrigation and fire-fighting purposes.

### **Hazardous Waste Management Plan**

A Hazardous Waste Management Plan Committee was established to develop comprehensive protocols for minimizing hazardous waste generation, ensuring proper segregation, packaging, storage, labeling, and certified incineration treatment.

The plan covered both the university and the medical center.

### **Recycling and Plastic Reduction Program (Implemented 2015)**

A recycling system was implemented across campuses, separating paper/cardboard from glass, cans, and plastics.

Drinking water bottle filling stations were installed to reduce PET bottle consumption.

### **Rainwater Harvesting and Water Reuse**

Rainwater harvesting systems and reclaimed wastewater reuse for irrigation were integrated into campus infrastructure.

Water-saving fixtures and efficiency upgrades reduced consumption across key buildings.

Annual water consumption was approximately 100,000 m<sup>3</sup>, with reclaimed wastewater and harvested rainwater contributing to irrigation needs.

GOAL

15

LIFE ON  
LAND

*Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.*



## Conscientious Education

### Environmental Science and Ecology Curriculum

A comprehensive set of undergraduate and graduate courses addressed terrestrial ecosystems, biodiversity loss, deforestation, land degradation, and environmental remediation.

Courses such as Introduction to Ecology (BIO203), Ecology (BIO331), Environmental Science (ENV200), Environmental Chemistry (CHM340), Environmental Microbiology (ENV423), and Environmental Physics (ENV427) examined ecosystem structure, pollution pathways, waste treatment, and climate-land interactions. Field components and laboratory sessions strengthened applied ecological understanding.

At the graduate level, Environmental Health and Toxicology (BIO834) explored contamination pathways and risk assessment, linking environmental degradation to public health outcomes.

### MS in Civil and Environmental Engineering - Environmental Emphasis

The master's program offered a concentration in Environmental and Water Resources Engineering. Through thesis-based research and advanced laboratory work, students addressed land management, infrastructure sustainability, and

environmental protection within urban and rural systems.

The program provided research training and cross-disciplinary exposure relevant to ecosystem resilience and sustainable land planning.

## **Minor in Climate Change and Sustainability Policy**

The interdisciplinary minor, developed under the CLIMASP consortium agreement, allowed students from diverse majors to integrate land-use planning, environmental policy, and sustainability governance into their academic formation.

The curriculum broadened climate education beyond natural sciences to include economics, architecture, sociology, and planning, strengthening the policy dimension of ecosystem conservation.

## **Research for Sustainability**

### **Institute for Environmental Studies and Research**

The Institute investigated the environmental impacts of urban growth, zoning, infrastructure expansion, and energy use on terrestrial ecosystems.

Its work included:

- Land-use strategies and demographic projections
- Urban and suburban planning studies
- Preservation master plans for natural and historical areas
- Environmental impact assessments for large-scale industrial and infrastructure projects

This research advanced evidence-based planning approaches to protect natural habitats and mitigate human-induced degradation.

### **Symposium on Neoliberalism and the Ecological Crisis**

An interdisciplinary symposium examined the environmental consequences of globalization, urban expansion, and development models.

Discussions addressed architecture, urban planning, forced migration linked to environmental stress, and the relationship between technological innovation and ecological balance. The event was held virtually in collaboration with the European Cultural Center.

### **Environmental Laboratory Infrastructure**

Specialized laboratories supported testing and experimentation aligned with international standards. Facilities enabled environmental monitoring, soil and water analysis, and ecosystem-related research essential to land conservation and pollution mitigation.

## **Community Engagement**

### **Hike, Adopt & Plant a Tree**

A student-led field initiative combined a guided biodiversity hike with tree adoption and planting activities.

Participants engaged directly in habitat restoration efforts, linking environmental education with practical land stewardship and local ecosystem protection.

## **Global Threats to Plant Biodiversity – Public Talk**

A campus-wide talk, on April 25, 2024, examined drivers of biodiversity loss, conservation strategies, and community roles in protecting plant species.

The session translated scientific research into accessible knowledge for students and local attendees.

## **Seminar on Lebanon's Wild Bees**

A public seminar explored the ecological role of native wild bee species, habitat threats, and conservation strategies.

The event raised awareness about pollinator decline and its implications for terrestrial biodiversity and agricultural systems.

## **International Fascination of Plants Day – Medicinal and Aromatic Plants**

The Department of Natural Sciences and the Environmental Club organized a campus event on April 29, 2022, highlighting Lebanon's rich flora heritage, with emphasis on medicinal and aromatic plants.

Students examined ethnobotanical uses, threats from illegal harvesting, habitat fragmentation, and climate stress. Exhibitions and interactive displays connected biodiversity awareness with cultural heritage.

## **Recycling and Waste Reduction Program (Implemented 2015)**

A campus-wide recycling initiative was implemented in 2015, separating paper and cardboard from glass, cans, and plastics.

Partnership with Association l'Écoute ensured that recycling proceeds supported social inclusion programs while reducing landfill pressure.

Bottle filling stations were installed to decrease PET bottle consumption.

## **Sustainable Stewardship of LAU Resources**

### **Hazardous Waste Management Plan**

A Hazardous Waste Management Plan Committee was established to oversee minimization, segregation, packaging, labeling, storage, and certified treatment of hazardous waste generated by university operations and the medical center.

Strict laboratory safety protocols and standard operating procedures reduced contamination risks to soil and land ecosystems.

### **Environmental Health and Safety Protocols**

The university adopted comprehensive laboratory safety rules, personal protective equipment requirements, and emergency response measures to prevent chemical spills and environmental contamination.

Dormitory fire-safety training and annual drills further reinforced responsible campus management practices.

## **Energy and Water Resource Monitoring**

The university monitored annual resource consumption across campuses.

Electricity use reached approximately 24 million kWh annually, while water consumption approached 100,000 m<sup>3</sup> per year.

Rainwater harvesting, gray water reuse, wastewater treatment plants in Byblos, and low-flow fixtures reduced pressure on land and natural resources.

Metering plans and pilot benchmarking projects were introduced to establish performance indicators and continuous improvement mechanisms.

## **Renewable Energy and Efficiency Projects**

Solar hot water systems and photovoltaic installations were integrated into major campus buildings.

Occupancy sensors, CO-controlled ventilation systems, and low-consumption lighting retrofits reduced operational environmental impact.

## **Certify Your Space Initiative (In Progress)**

Departments and offices were invited to adopt sustainable operational practices. Participating units could receive certification and public recognition for reducing waste, conserving energy and water, and improving environmental performance.

GOAL

16

## PEACE, JUSTICE AND STRONG INSTITUTIONS

*Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.*

**16** PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



A close-up photograph of a person's hand holding a sign. The sign has the words 'JUSTICE' and 'PEACE' written in large, bold, black, hand-drawn letters. The background is a light, textured surface.

### Conscientious Education

#### Peace and Justice Education Courses

A structured academic offering in Peace and Justice Education strengthened students' understanding of conflict transformation, governance, and social cohesion.

Courses such as Cross-Cultural Communication and Conflict (PJE201 / PJE201H) examined intercultural dialogue, group dynamics, and conflict transformation processes.

Community Conflict and Conflict Resolution (PJE315) focused on communal tensions, the role of governmental and non-governmental actors, and applied conflict resolution strategies relevant to political science, international relations, and social studies.

#### MA in Migration Studies

The MA program in Migration Studies supported the development of future analysts and practitioners in refugee, displacement, and migration policy.

Through research training, summer schools, internship programs, and visiting fellowships, the program strengthened analytical capacity in migration governance and humanitarian response.

## Research for Sustainability

### Center for Policy Analysis

In February 2024, the university established the Center for Policy Analysis to bridge academic research and public policymaking.

The center adopted a multidisciplinary approach covering energy, economics, education, health, environment, and social policy. Its mandate focused on producing independent, evidence-based research to inform national policy debates and support sustainable reform.

### Spotlight on Fiscal Policy Panel

On July 2, 2024, the Center for Policy Analysis co-organized a panel discussion with the International Monetary Fund addressing Lebanon's fiscal challenges.



Figure 18: Fiscal Policy in Lebanon, Fiscal Policy in Lebanon, By Dana K. Haffar, July 2, 2024

Experts examined debt sustainability, revenue reform, and public financial management strategies. The discussion emphasized dialogue among policymakers, researchers, and economic stakeholders.

### Climate Displacement Workshop

In collaboration with Rice University's Baker Institute, the Institute for Migration Studies hosted a two-day workshop on climate-induced displacement in the MENA region.

Held in October 2023, the workshop addressed migratory patterns, human rights implications, and legal frameworks such as the 1951 Refugee Convention.

The initiative encouraged the development of policy briefs and interdisciplinary research linking climate change, displacement, and governance.

## Bridging Divides Blog

The Institute for Social Justice and Conflict Resolution launched the "Bridging Divides" blog to amplify dialogue on conflict resolution and social justice.

The platform invited contributions from scholars, practitioners, policymakers, and students on themes including international law, labor rights, anti-corruption measures, inclusive governance, and humanitarian response.

## Community Engagement

### Student Council Elections – Shared Governance Model

In October 6, 2023, a new Student Council was elected through a secure online voting system, with 67.41% participation from the eligible student body.

The process reinforced democratic engagement, transparency, and civic responsibility within the university community.

Student representatives served on committees addressing curriculum, financial aid, admissions, library resources, and academic integrity.

### LAU and Lebanese Armed Forces Agreement

On May 17, 2024, formal agreement was signed under the Civil-Military Cooperation framework to strengthen collaboration between the university and the Lebanese Armed Forces.



*Figure 19: LAU and the Lebanese Armed Forces Strive for National Welfare, By Editorial Staff, May 17, 2024*

The partnership aimed to consolidate academic expertise, research capacity, and institutional resources toward sustainable community development initiatives.

### "We Are Lebanon" – Independence Day Initiative

Marking Lebanon's 81st Independence Day, student clubs organized fundraising and cultural activities supporting displaced communities.

Activities included sales initiatives, musical performances, and a public speaking competition centered on unity and civic responsibility.

## **Sustainable Stewardship of LAU Resources**

### **University Governance Framework**

Executive officers, faculty, staff, and student representatives participated in governance through structured bodies including the President's Cabinet, Council of Deans, Student Affairs Council, University Planning Council, Faculty Senate, and Staff Advisory Council.

These bodies operated under formal bylaws regulating mandates, composition, and procedures, ensuring transparency and institutional accountability.

### **Responsible Conduct of Research Policy**

The Board of Trustees adopted the Responsible Conduct of Research and Responding to Allegations Policy on March 22, 2019.

The policy defined research misconduct (fabrication, falsification, plagiarism), established investigative procedures, and assigned oversight roles including the Deciding Official (President) and Research Integrity Officer (Provost).

It required compliance with ethical standards, conflict-of-interest disclosure, IRB approval for human research, secure data management, and transparent dissemination of findings.

### **Institutional Review and Oversight Mechanisms**

The Institutional Review Board (IRB), University Research Council, Faculty Grievance Council, University Admission Council, Financial Aid Council, and other standing committees ensured procedural integrity across academic and administrative operations.

GOAL

17

## PARTNERSHIP FOR THE GOALS

*Strengthen the means  
of implementation  
and revitalize the  
global partnership for  
sustainable  
development.*

17 PARTNERSHIPS  
FOR THE GOALS



### Conscientious Education

#### Curriculum Z – University-Wide SDG Integration

All undergraduate students complete Curriculum Z requirements under the themes Digital Cultures and Change Makers, integrating sustainability topics across disciplines.

Courses address food systems, energy, migration, gender equality, poverty reduction, and ethics, embedding the SDGs within multidisciplinary education.

#### Liberal Arts and Sciences Curriculum (LASC)

The Liberal Arts and Sciences Curriculum mainstreams SDGs across undergraduate education through interdisciplinary courses such as Water Security, Sustainable Food Systems, Sustainable Energy, Technology and Ethics, and Migration Studies.

The curriculum strengthens civic engagement, ethical reasoning, and systems thinking.

## Dedicated Degrees and Minors in Sustainability

LAU offers structured programs advancing sustainability competencies, including:

- Minor in Climate Change and Sustainability Policy
- Minor in Renewable and Sustainable Energy
- Minor in Environmental Science
- Minor and MA in Gender Studies
- MS in Civil and Environmental Engineering

These programs equip students with interdisciplinary and applied sustainability expertise.

## Sustainability Programs

The Academy of Continuing Education (ACE) delivers more than 65 continuing education programs supporting lifelong learning in areas such as renewable energy, women entrepreneurship, gender-responsive development, and food safety.

Key initiatives include PV Technician Training, Women Entrepreneurship Diploma, and the Gender in Development and Humanitarian Assistance Certificate.

## Research for Sustainability

### Center for Policy Action (CePA)

CePA operates as a national and regional policy hub linking academic research with public governance.

Between 2023 and 2024, it conducted "Research to Policy" workshops and launched a Policy-Writing Clinic under an anti-corruption track. Publications such as the 2024 Multi-Crises Impact Index for Lebanon contributed analytical tools for policy modelling and adaptive governance.

### Social Expenditure and SDG Monitoring Collaboration

A symposium on social expenditures, in April 2023, gathered experts from ESCWA, UNDP, and UNICEF to examine fiscal reforms and SDG progress in the Arab region. The discussion emphasized data-driven public financial management and inclusive growth strategies.

### Violence Counts! Regional Data Initiative

Since 2020, the Arab Institute for Women partnered with the Global Women's Institute at George Washington University, supported by UN Women and WHO, to strengthen Arab regional capacity for collecting data on violence against women.

The initiative developed technical training curricula and piloted capacity-building programs for regional researchers.

### Research Collaborations with International Bodies

LAU collaborated with institutions and agencies including:

- Agence Universitaire de la Francophonie (2024 research grants)
- Zayed University (joint health research)
- American University of Beirut and UNEP (food waste research dialogue)
- Boise State University (virtual exchange for SDG-focused design thinking)

These collaborations advanced applied research aligned with global sustainability priorities.

## Community Engagement

### Memorandum of Understanding with UNDP-Youth Leadership Programme

In May 2024, LAU signed an Memorandum of Understanding (MOU) with the United Nations Development Programme (UNDP) to advance youth-driven sustainable development initiatives.

The agreement included collaboration on the Youth Leadership Programme and the planned National Youth Forum, uniting academia, NGOs, and international partners.

### Participation in UN-ESCWA Forum for Sustainable Development

On March 19, 2024, LAU participated in the regional forum alongside government, NGO, academic, and private-sector representatives to review SDG progress and discuss governance reforms.

### Office for Sustainability Launch

In March 2024, LAU established the Office for Sustainability, becoming the first university in Lebanon to institutionalize sustainability governance through a dedicated central office led by a Chief Sustainability Officer.

The office coordinates SDG integration across teaching, research, operations, and outreach, while engaging with funding bodies, community partners, and international sustainability forums. This step formalized sustainability as a university-wide strategic priority rather than a collection of isolated initiatives.

### Community Service and Engagement Partnerships

Through the Community Service & Engagement unit, LAU collaborates with NGOs and public institutions on structured volunteer programs, including:

- Volunteer Teachers Program (since 2011)
- USAID-funded Higher Education Scholarship Program
- Corporate Visits Series linking civic engagement and institutional responsibility

Students complete structured volunteering hours through partnerships with over 100 NGOs.

### International Services and Programs Office

The office connects students to international volunteering and internship opportunities with organizations such as AIESEC, United Nations Volunteers, and other global networks.

Programs such as Tomorrow's Leaders Undergraduate and Graduate initiatives integrate scholarships, leadership development, and civic engagement.

## Sustainable Stewardship of LAU Resources

### Department of Institutional Research and Assessment (DIRA)

DIRA oversees institutional data collection, analysis, and reporting.

Its Fact Book, Common Data Set, and analytical dashboards provide standardized indicators supporting benchmarking and transparency across academic and operational functions.

## **SDG Reporting and Public Transparency**

The university publicly reports on all 17 SDGs through its website and sustainability publications.

The Office for Sustainability coordinates institutional indicators, performance monitoring, and international benchmarking efforts.

## **International Networks and Global Memberships**

LAU participates in international platforms supporting knowledge exchange and comparative learning, including:

- Blue Peace Middle East Initiative
- Accelerator for Systemic Risk Assessment
- Global Breastfeeding Collective
- Mediterranean Network of Engineering and Management Schools
- Regional Network in Energy for Women (RENEW MENA)
- Institute of International Education, NAFSA, EAIE, and AAICU

These affiliations strengthen cross-border collaboration, policy dialogue, and institutional benchmarking.



Office for  
Sustainability

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