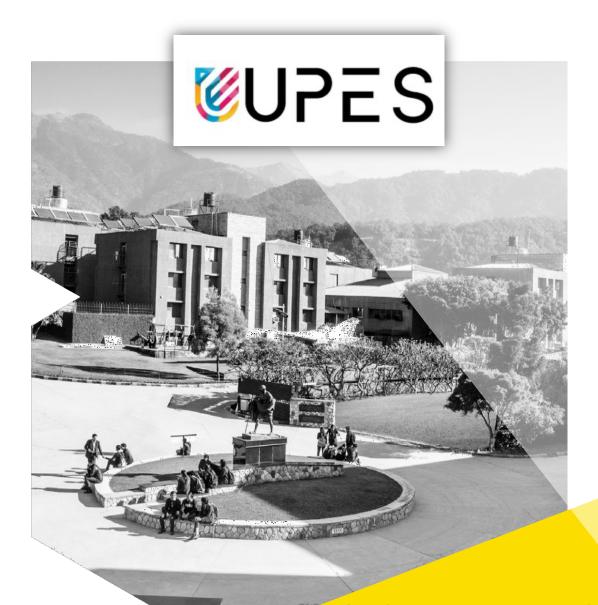


SUSTAINABLE DEVELOPMENT GOALS



SDG 17: PARTNERSHIPS FOR THE GOALS

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Sustainability Literacy at UPES University

Sustainability literacy is defined as the knowledge, skills, and mindset needed to live in a way that accounts for environmental, economic, and social well-being [1]. UPES University embraces this concept by actively integrating sustainability literacy into its **curriculum**, **campus operations**, **and community engagement**, thereby fostering a culture of responsibility and innovation among students and staff [1]. The following report outlines how UPES promotes sustainability literacy through formal academics and informal learning, including student and staff initiatives, to support the university's impact on sustainable development.

Curriculum Integration of Sustainability

UPES weaves sustainability principles throughout its academic programs to ensure all students gain a strong foundation in this area. Key approaches include:

Specialized Programs and Courses

The university offers dedicated programs in fields such as *sustainability studies, renewable energy, environmental law,* and *sustainable business practices*. This gives students the option to pursue deep expertise in sustainability-related domains [1]. Additionally, many degree programs incorporate modules on climate change, renewable energy, and the UN Sustainable Development Goals (SDGs) into their core curricula [1].

Mandatory Sustainability Modules

UPES ensures a baseline sustainability literacy for all undergraduates by requiring foundational courses on environmental and sustainability topics. For example, engineering students take a course titled "Environment, Sustainability, and Climate Change," which includes both classroom theory and a hands-on "Living Lab" component [2]. Through such required coursework, every student is exposed to fundamental concepts of sustainable development.

Life Skills Education

Beyond technical content, the **School for Life** curriculum at UPES includes signature life-skill courses that broaden perspectives. Students can choose electives like "Ethical Leadership in the 21st Century" and "Environment and Sustainability," alongside other forward-looking topics, to complement their main studies [3]. This ensures graduates not only excel in their majors but also understand ethical and sustainable practices in a broader societal context.

Experiential Learning and Research Opportunities

UPES emphasizes learning-by-doing, giving students numerous opportunities to apply sustainability concepts in practical settings and research projects:

Hands-On Projects and Internships

Students engage in **experiential learning** activities such as conducting waste management projects, performing energy audits, and carrying out environmental impact assessments on campus and in the community [1]. These projects, often part of coursework or clubs, allow students to tackle real sustainability challenges. UPES also facilitates *live projects, fieldwork, and internships* with industry partners and NGOs, so that students can apply sustainable solutions in real-world contexts [1]. This approach helps bridge theoretical knowledge with practical skills in sustainability.

Research & Innovation

The university actively involves both faculty and students in **cutting-edge sustainability research**. Research teams at UPES explore areas such as renewable energy technology, sustainable transportation, green engineering, and circular economy models [1]. Collaboration with industries and government organizations is encouraged so that research findings contribute directly to sustainable development goals and industry practices [1]. Students often undertake thesis projects or participate in faculty-led research, developing innovative solutions to environmental and social challenges. This not only enriches their learning but also produces new ideas for sustainability.

Entrepreneurship in Sustainability

UPES nurtures an entrepreneurial spirit geared towards sustainability. The university's incubation center and programs like "Runway" support student startups and ventures focused on green technologies, renewable energy solutions, and sustainable business models [1]. By translating classroom knowledge into tangible products and services, students learn how sustainability literacy can drive business innovation. These opportunities enable aspiring entrepreneurs to launch companies that address sustainability challenges, reinforcing the idea that economic development and sustainability go hand-in-hand.

Strategic Centers and Programs

In 2024, UPES launched the **RISE Centre** (Research on Impact, Sustainability, and ESG) as a dedicated hub for sustainability research and education [4]. This center aims to equip current and future leaders with the knowledge and skills to drive impactful change on issues like climate change and carbon neutrality [4]. As part of its initiatives, UPES also introduced an executive education program on ESG and Sustainability (in partnership with external institutions) to train mid- and senior-level professionals as future "Chief Impact Officers," further spreading sustainability expertise beyond the

student body [4]. These developments strengthen the university's role in advancing sustainability scholarship and practice at all levels.

Sustainable Campus as a Living Lab

The UPES campus itself serves as a **living laboratory of sustainability**, where operational practices reinforce learning:

Green Campus Practices

The university has implemented numerous sustainable operations on campus, including **rainwater harvesting systems**, **solar energy installations**, **and comprehensive waste segregation programs** [1]. Students see these systems in action daily – for instance, solar panels contribute to campus power, and recycling bins and waste management processes model proper waste diversion. These initiatives serve as live demonstrations, allowing students to witness and learn sustainable practices firsthand in their immediate environment [1]. The presence of such infrastructure turns the campus into a microcosm of a sustainable city, reinforcing classroom lessons with tangible examples.

Resource Conservation Efforts

UPES continuously evaluates its campus footprint and adopts measures to reduce waste and conserve resources. One noteworthy example is the university's decision to **eliminate all RO (Reverse Osmosis)** water filtration systems on campus after finding they were water-inefficient [5]. (RO systems can waste three times more water than they produce in purified form.) After testing showed the campus water to be potable without extensive filtration, UPES removed these systems – a change that saves roughly **30 million litres of water annually** [5]. This significant conservation effort not only reduces environmental impact but also stands as a daily lesson for students and staff in evaluating and improving sustainability of operations.

Campus as a Learning Tool

By integrating sustainability into facilities management, UPES turns the campus into a teaching tool. Students may participate in monitoring solar energy output, maintaining a campus greenhouse, or analyzing water consumption data as part of their coursework or club activities. Such involvement helps the community develop practical understanding of resource management. Overall, the campus environment consistently reinforces the importance of sustainable living through both signage and practice, building habits like energy conservation and recycling among the student body.

Workshops, Seminars, and Sustainability Events

UPES supplements classroom learning with a rich array of **informal educational events** focused on sustainability:

Workshops and Guest Lectures

The university regularly organizes workshops, panel discussions, and expert talks on sustainability topicsupeswebsitecdn-prod-hphqfhc0b8h2ffhf.a02.azurefd.net. These events bring in **industry experts, policymakers, scientists, and thought leaders** to discuss current sustainability challenges and innovations. For example, engineering students might attend a guest lecture on the latest in solar power technology, or law students might learn about environmental legislation from a visiting expert. Such interactions expose students to the latest developments and global trends in sustainability, keeping their knowledge up-to-dateupeswebsitecdn-prod-hphqfhc0b8h2ffhf.a02.azurefd.net.

Sustainability Week

UPES hosts events like "Sustainability Week" – a dedicated series of activities aimed at building awareness and engaging students across all disciplines [1]. During Sustainability Week, the campus buzzes with activities: poster exhibitions on sustainable innovations, documentary film screenings, quiz competitions on climate change, and group activities like tree planting or campus clean-up drives. These collaborative events encourage students to participate actively and **translate awareness into action**, all while fostering a sense of community around sustainability goals [1].

International Conferences and Fairs

In addition to internal events, UPES has gained recognition for hosting large-scale sustainability conferences. Notably, the university's **Sustainability Fair** (now in its 3rd edition) includes the International Conference on Health, Safety, Fire & Environmental Advances, attracting researchers, practitioners, and students globally. For instance, Sustainability Fair 2.0 saw over 1,200 delegates and hundreds of research presentations, highlighting UPES's role as a hub for sustainability dialogue [6]. Such events provide students with exposure to worldwide perspectives and networking opportunities in the sustainability sector. (They also often involve student volunteers in organizing, which is another learning experience in leadership and event management.)

Through these workshops and events, sustainability ceases to be just a subject in a textbook – it becomes a dynamic, engaging part of campus life. Students gain not only knowledge but also motivation and skills to be sustainability advocates.

Student Clubs and Initiatives

A strong culture of student-led initiative underpins sustainability literacy at UPES. The university actively supports **student organizations and clubs focused on sustainability** [1], empowering students to lead by example among their peers:

Sustainability-Focused Clubs

UPES has multiple student-run clubs such as environmental advocacy groups, renewable energy clubs, nature conservation societies, and chapters of international organizations (for example, a campus chapter focused on clean energy). These clubs provide a platform for passionate students to dive deeper into topics like biodiversity, climate action, or clean technology, and to educate others. The university recognizes and resources these groups, which helps them thrive [1].

Peer Learning and Campaigns

Student groups regularly organize **green campaigns and community service activities**. Popular initiatives include campus tree-planting drives to increase green cover, neighborhood cleanup campaigns to reduce litter, and recycling drives that collect waste paper or plastic for proper recycling [1]. Some clubs run awareness campaigns on days of environmental significance (like Earth Day or World Environment Day), setting up informational booths or competitions to engage fellow students. These activities encourage peer-to-peer learning – students teaching and motivating each other – which can be very effective in building habits. They also often involve local communities, thereby extending the impact beyond the university. UPES supports these efforts by providing guidance from faculty mentors and sometimes modest funding or resources, recognizing that **student-led action is a powerful driver of sustainability literacy and leadership** [1].

Recognition and Incentives

To further encourage student involvement, UPES often showcases the work of these clubs in campus newsletters, on social media, and during events. Outstanding projects or ideas can earn students awards or the opportunity to represent the university in external competitions. This recognition creates positive reinforcement, showing that sustainability initiative is valued as part of the student experience. Many alumni note that participating in such projects helped shape their perspective and commitment to sustainable practices in their later professional life.

Staff Training and Awareness

Sustainability literacy at UPES is not limited to students – the university also invests in training and empowering its **faculty and support staff**, understanding that an informed and engaged staff is crucial for a truly sustainable campus culture.

Skills Development for Support Staff

Through the *UPES Skills Academy*, the university runs programs to **upskill its non-teaching and support staff**. These training programs focus on improving essential competencies such as basic computer usage, English communication, and other soft skills [7]. They were designed after identifying needs via an internal survey, which highlighted areas where staff required more support (for example, many security, maintenance, and housekeeping staff expressed a desire to improve their digital literacy and language skills) [7]. By addressing these needs, UPES helps ensure that all staff can actively participate in and contribute to the university's sustainability initiatives (for instance, by using digital systems for energy or waste tracking, or communicating effectively about new campus policies). So far, **22 support staff have received training under "Project Grow" and nearly 60 have been trained under a dedicated Skill Development Program** aimed at staff capacity-building [5]. This has markedly increased their confidence and engagement on campus.

Empowering Women Employees (Project Swavalamban)

Under its social responsibility umbrella, UPES launched *Project Swavalamban* to empower its Class IV women employees (primarily female housekeeping and support staff). This initiative provides these women with education and training in **English language**, **basic technology use**, **communication skills**, **knowledge of legal rights**, **health and hygiene**, and other life skills [7]. The goal is to make the participants self-reliant and aware of opportunities and resources available to them. By improving their literacy and awareness in various domains, the university is not only enhancing their personal well-being but also fostering an inclusive, equitable campus environment — a key aspect of social sustainability. Women staff who have gone through the program report greater self-confidence and ability to voice suggestions (for example, some have taken lead in implementing better waste management practices in their work areas after understanding the importance).

Faculty Development and Awareness

Academic staff at UPES are encouraged to embed sustainability in their teaching and research. The university runs a Post-Graduate Certificate in Academic Practice (PGCAP) program for faculty, which incorporates global best practices in pedagogy [7]. While its primary focus is on teaching excellence, such training sensitizes faculty to contemporary issues – including the importance of integrating sustainable development topics into the curriculum. Moreover, many faculty members are directly involved in sustainability initiatives (as mentors to student clubs, principal investigators of green research projects, or coordinators of events). Regular internal seminars allow faculty and staff to share

experiences on topics like "greening the campus" or "sustainability in the classroom," contributing to a knowledgeable workforce that leads by example. Through these collective efforts, the entire university staff – from professors to support personnel – are made partners in UPES's sustainability journey, ensuring that students see consistent messaging and practice from all corners of the campus.

Community Outreach and Global Alignment

UPES recognizes that true sustainability literacy extends beyond campus. The university undertakes **community outreach** to spread awareness in society and aligns its initiatives with global sustainability goals:

Local Community Engagement

UPES extends its sustainability efforts to the surrounding communities in Uttarakhand. Faculty and student volunteers conduct workshops and awareness programs in nearby villages and schools on topics like energy conservation, waste management, and water-saving practices [1]. By demonstrating simple techniques (for example, how to segregate household waste or harvest rainwater) and explaining their benefits, the university helps improve sustainability practices at the grassroots level. UPES often collaborates with local NGOs and government agencies in these efforts, combining academic knowledge with on-ground experience [1]. Not only do these initiatives benefit the community, they also enhance students' learning – participating students gain communication skills and a deeper appreciation of how sustainability challenges play out in real life. This two-way engagement exemplifies the university's commitment to "educate for impact": applying classroom learning to improve society.

Promoting Literacy and Education in Rural Areas

In addition to environmental workshops, UPES's community programs address basic education and literacy as part of sustainable development. For instance, the university has adopted schools in neighboring rural areas to improve primary education quality and computer literacy among children [5]. Such efforts, while not purely about environmental literacy, build the foundation of informed communities that can better grasp and act on sustainability issues. UPES's social internships (the Srijan program) send students to work with over a thousand partner NGOs, where they contribute to education and development projects, indirectly promoting broader literacy and empathy in line with SDGs [5].

Alignment with the SDGs

Crucially, UPES frames its sustainability literacy initiatives within the broader context of the **United Nations Sustainable Development Goals**. The university consciously **aligns academic, research, and operational activities with the SDGs** to ensure a holistic and globally-relevant approach [1]. For example, courses and projects are often mapped to specific goals (SDG 7 for renewable energy

projects, SDG 13 for climate action initiatives, SDG 4 for education outreach, and so on). Students are taught to analyze global challenges—such as poverty, climate change, gender equality—through the lens of the SDGs, fostering a global perspective in their problem-solving [1]. This alignment not only helps in tracking the university's contributions to each goal but also ingrains in students the understanding that their local actions connect to international efforts. Many capstone projects and research theses explicitly mention SDG targets, reflecting this integration. By internalizing the SDG framework, graduates carry with them a mindset to contribute to these global objectives in their future careers.

Partnerships and Collaborations

UPES has forged partnerships with international institutions and industry on sustainability initiatives, reinforcing global learning. Joint research projects, student exchange programs focusing on sustainable development, and collaboration in organizing international conferences (as seen in the Sustainability Fair) are some examples. These partnerships not only raise the quality of sustainability education at UPES but also allow the university to benchmark and improve its practices against global standards. They send a message to students and staff alike: sustainability is a shared global mission, and everyone at UPES is part of that larger community of practice.

Impact and Outcomes

UPES's multifaceted approach to sustainability literacy – spanning curriculum, campus life, community outreach, and staff development – has yielded significant positive outcomes, aligning with the university's mission to create well-rounded, socially responsible graduates:

Empowered Graduates

Students from UPES emerge as **leaders and sustainability advocates** in their respective fields. Thanks to exposure to sustainability concepts in energy, law, business, technology and more, graduates enter the workforce prepared to prioritize sustainable practices [1]. They are equipped not just with technical know-how, but with an ethos of environmental and social responsibility. Employers increasingly value such graduates who can drive corporate sustainability initiatives or develop innovative solutions with societal impact.

Innovative Solutions

The emphasis on research and practical projects has led to many **innovative solutions** being developed by students. From novel renewable energy devices and improved fuel formulas to creative recycling methods and community action models, UPES students have contributed fresh ideas to tackle environmental challenges [1]. Some projects born at UPES have even evolved into startups or patents, indicating a culture of innovation. This experiential learning ensures that students not only understand theory but can apply it creatively, fostering long-term sustainability problem-solving skills.

Community Impact

Through its outreach programs and the ripple effect of graduate actions, UPES makes a tangible impact beyond campus. Local communities have adopted more sustainable practices (for example, villages implementing waste segregation after UPES workshops, or schools continuing environmental clubs started by interns), amplifying the university's influence [1]. The university's sustained presence in community development projects has helped raise awareness on issues like clean water, sanitation, and renewable energy in the region. Each year, thousands of hours of service by UPES students and staff contribute to improving living standards and environmental quality around Dehradun. This community engagement strengthens students' sense of social responsibility and proves the real-world value of sustainability literacy.

Global Competence

By aligning learning with global goals and diverse perspectives, UPES ensures its graduates are **globally competent** on sustainability matters [1]. They can engage in international dialogues on climate change, understand global policy frameworks, and collaborate across cultures towards sustainable development. Whether they choose to work in multinational companies, pursue higher studies abroad, or join international NGOs, UPES alumni carry with them the confidence and competence to address global environmental and social challenges. This global outlook also raises the profile of the university on international platforms, as seen by UPES's participation in global sustainability networks and rankings.

In summary, sustainability literacy at UPES is not a single course or event, but a comprehensive, institution-wide ethos.

By embedding sustainability principles in academics, providing rich practical experiences, leveraging the campus and community as learning venues, and including every stakeholder (students, faculty, and staff) in the journey, UPES creates a vibrant learning environment. The result is a generation of graduates and employees who are knowledgeable about sustainability, attentive to their impact, and motivated to drive change. These efforts and their outcomes underscore UPES University's commitment to sustainability and its contribution towards a more sustainable future – on campus, in the local community, and in society at large [1]. Such a holistic approach not only prepares students to be responsible citizens and professionals, but also solidifies UPES's standing as a leader in sustainability-oriented education and an institution making meaningful progress toward the UN SDGs.

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