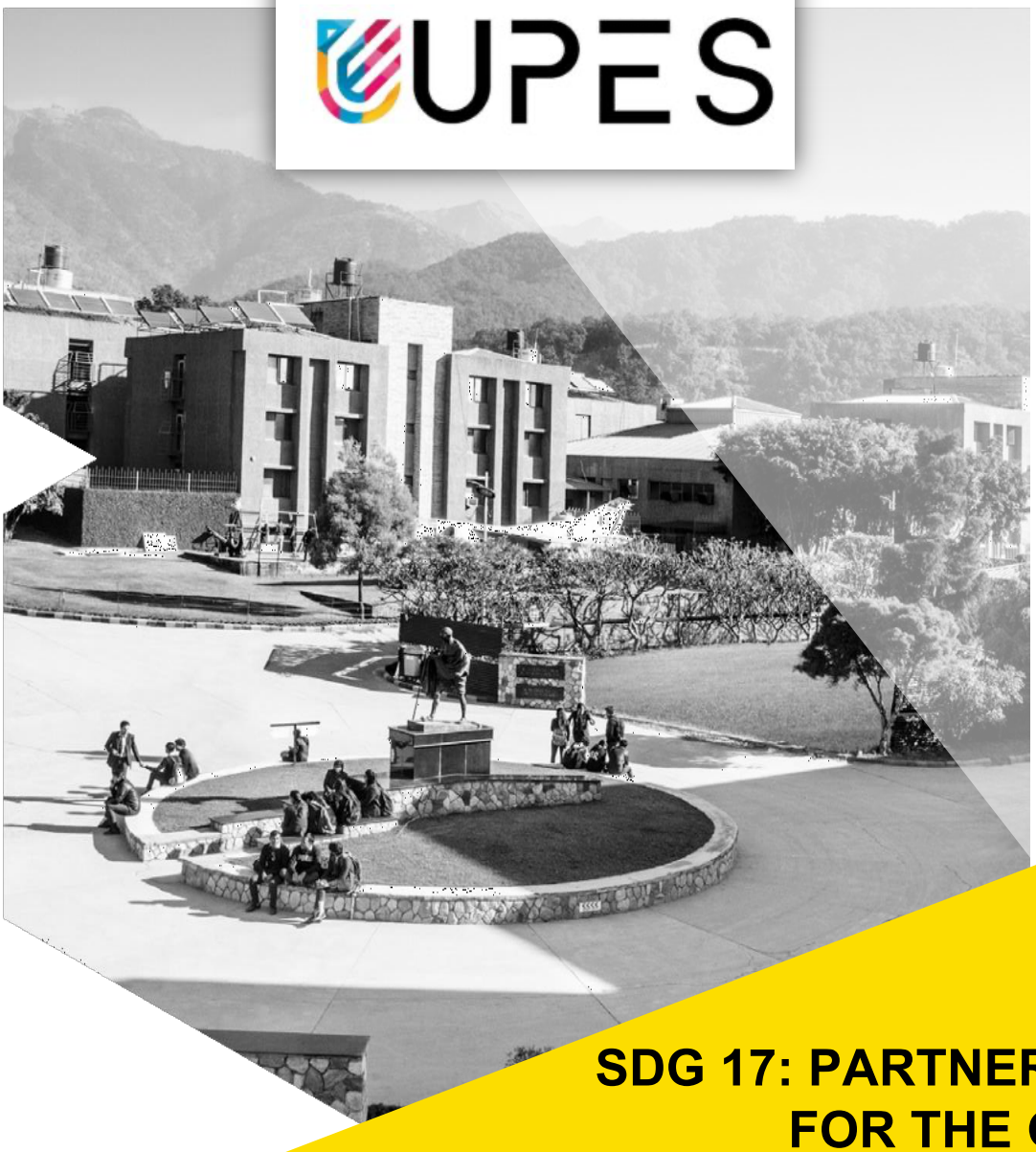
SUSTAINABLE DEVELOPMENT GOALS

UPES



SDG 17: PARTNERSHIPS FOR THE GOALS

2025

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Sustainability and SDG-Focused Programs at UPES

Undergraduate Programs (UG)

B.Tech in Sustainability Engineering

School of Advanced Engineering. A 4-year engineering program dedicated to sustainability, designed to produce professionals who can address climate change and global sustainability challenges. The curriculum is explicitly aligned with the Paris Agreement and the UN Sustainable Development Goals (SDGs) [1]. Students receive interdisciplinary training on sustainability practices, climate change scenarios, energy & environmental audits, and innovative metrics for sustainability evaluation [1]. Graduates are prepared to become "sustainability officers"/engineers adept in sustainable development policies and practices [1], emerging as experts who can drive sustainable solutions in various sectors [1].

B.Tech Civil Engineering (Environmental Engineering Specialization)

School of Advanced Engineering. An undergraduate specialization focusing on critical infrastructure and environmental sustainability. The program trains students in **water supply and sewage systems**, water and wastewater treatment, pollution monitoring, and solid waste management – all key to sustainable cities and communities [1]. With courses on air/noise pollution control and waste recycling, this program directly contributes to SDG goals like **Clean Water and Sanitation (SDG 6)** and **Sustainable Cities & Communities (SDG 11)** by preparing engineers to implement sustainable urban infrastructure solutions [1]. Graduates learn to design and maintain environmental systems that ensure clean water, effective sewage treatment, and pollution mitigation, aligning engineering practice with environmental sustainability.

BA/BBA LL.B. (Hons.) with specialization in Energy & Environmental Law

School of Law. An integrated 5-year law program that blends legal education with sustainable development issues. This honors course builds deep expertise in **energy law, environmental policies, and climate change frameworks** [2]. Students study international environmental treaties, sustainable energy regulations, renewable energy law, climate change law, and even energy trading mechanisms [2]. By understanding legal aspects of sustainable energy systems and environmental protection, graduates are equipped to advocate for SDG themes like **Affordable & Clean Energy (SDG 7)**, **Climate Action (SDG 13)**, and **Strong Institutions (SDG 16)**. Program highlights include coursework on **sustainable energy, climate change law, and sustainable development in the energy sector** [2], preparing future lawyers to navigate complex environmental regulations and promote sustainability in corporate and public policy contexts.

Minor Specializations in Sustainability

School of Engineering. UPES integrates sustainability content even into traditional programs through elective **minors**. For example, students in B.Tech programs (Fire & Safety Engineering, Civil Engineering, etc.) can opt for minors like **Sustainability Engineering, Climate Change, Disaster Management, or Reclaim Engineering** [1]. These minors infuse SDG-related knowledge into the curriculum – a B.Tech student can graduate with a focus on climate change or sustainable engineering

alongside their major. Such electives ensure that even in programs like civil, construction, or safety engineering, students learn about sustainable development, climate resilience, and disaster risk reduction (supporting SDG 9 *Industry, Innovation, and Infrastructure* and SDG 13 *Climate Action*). This choice-based credit system allows interdisciplinary exposure, preparing well-rounded graduates aware of sustainability challenges [1].

*(Note: UPES's **School of Liberal Studies** also incorporates public policy content – for instance, the BA (Journalism & Mass Communication) program offers a minor in Public Policy & Strategic Communications* [3]*. This indicates even media students engage with public policy and SDG-related topics, though no standalone BA Public Policy program is listed on the official site.)*

Postgraduate Programs (PG)

M.Tech in Sustainability Engineering (with optional Ph.D. pathway)

School of Advanced Engineering. A unique 2-year master's program (first-of-its-kind in India) centered on environmental conservation, social equity, and sustainable technology. The curriculum explicitly addresses the **United Nations Sustainable Development Goals (UN-SDGs)**, aiming to create sustainability experts with interdisciplinary knowledge spanning engineering, environmental science, policy, design, and public health [1]. Courses cover a holistic blend of topics – from renewable energy and green infrastructure to HSE (health, safety, environment) management and sustainable product design. Notably, the program emphasizes aligning all projects and research with the SDGs, ensuring graduates can **"make a positive impact on global sustainability challenges"** [1]. With **practical industry projects and research opportunities**, students learn to integrate sustainability across engineering solutions. (This M.Tech is offered with an *optional Ph.D.* track, allowing students to seamlessly continue into doctoral research on sustainability topics [1].)

M.Tech in Health, Safety & Environment (HSE)

School of Advanced Engineering. A 2-year master's program preparing engineers for leadership roles in occupational health, industrial safety, and environmental management. The curriculum covers **process safety engineering, fire engineering, environmental regulations, risk assessment, and occupational health** [1]. Aligned with SDG targets for decent work conditions and healthy lives (SDG 3 and SDG 8), this program teaches students to uphold high safety standards while promoting sustainable, eco-friendly practices in industry. Program highlights stress a *"focus on sustainable practices,"* equipping students to implement **eco-friendly initiatives and create positive environmental impact** in their organizations [1]. Graduates emerge as HSE managers who can ensure compliance with environmental norms and drive workplace sustainability (supporting **SDG 12: Responsible Consumption & Production** by reducing industrial accidents and pollution).

MBA (Power Management) – Green Energy and Transition to Sustainability

School of Business. A specialized 2-year MBA that combines core business management with deep expertise in renewable energy and sustainable business practices. This program prepares future leaders for the **dynamic power and clean energy sector**, emphasizing strategies for renewable energy adoption and corporate sustainability. Students learn about sustainable energy technologies (solar, wind, hydrogen, EVs, etc.), energy policy and regulations, and how businesses can lead climate action

[4]. The curriculum includes real-world projects and a dissertation focusing on green energy solutions. The *Green Energy & Sustainability* specialization "**delves into sustainable business practices, corporate social responsibility, and sustainable development principles**" [4]. By covering emerging trends like energy storage, electric mobility, and carbon markets, this MBA aligns with **SDG 7 (Affordable & Clean Energy)** and **SDG 13 (Climate Action)**. Graduates are equipped to drive ESG initiatives, energy transitions, and sustainability projects in the corporate sector [4].

LL.M. in Environmental & Energy Law

School of Law. A one-year Master of Laws program focusing on the legal frameworks governing environmental protection and energy sectors. The curriculum blends theoretical and practical learning on topics such as **sustainable energy systems, climate change law, international environmental treaties, and energy policy governance** [2]. Students engage with case studies on global climate agreements and domestic energy regulations, including courses like *"Sustainable Energy and Environment Protection"* and *"Nuclear Energy and Sustainable Development."* This LL.M. places **special emphasis on sustainable energy and environmental protection**, ensuring lawyers understand how law and policy can advance the SDGs [2]. Graduates become specialists capable of navigating legal challenges in renewable energy projects, environmental compliance, climate change litigation, and sustainability initiatives – contributing to goals such as **SDG 13 (Climate Action)**, **SDG 7 (Clean Energy)**, and **SDG 15 (Life on Land)** through informed legal practice [2].

Other PG Programs with SDG Content:

UPES offers additional postgraduate programs that incorporate sustainability/SDG topics within their curriculum or research components. For instance, the **M.Des. (Master of Design)** program includes specializations like *Mobility & Vehicle Design*, where students work on designing future transportation systems with a focus on efficiency and sustainability (supporting SDG 9 and SDG 11). Similarly, **MBA programs in sectors like Oil & Gas or Logistics** at UPES increasingly include modules on environmental management, energy transition, or corporate sustainability, ensuring graduates in those fields are versed in ESG (Environmental, Social, Governance) principles (as noted by UPES's dedicated *RISE* center for sustainability and ESG research) [5]. Furthermore, the university's emphasis on *"integrating sustainability into curriculum and research projects"* means that even mainstream PG courses encourage projects aligned with SDG themes [6]. (All data is drawn from official UPES sources; e.g., the UPES SDG overview states they embed sustainability in curricula through industry partnerships and research [6].)

Doctoral Programs (Ph.D.)

Ph.D. in Renewable Energy

School of Engineering (Doctoral program in Engineering). UPES offers doctoral research opportunities in Renewable Energy, a field directly tied to sustainable development. As listed in the Ph.D. (Engineering) specializations, scholars can pursue a Ph.D. focusing on **renewable and clean energy technologies** [7]. Research areas likely include solar, wind, bioenergy, hydrogen fuel, energy storage, and grid sustainability – contributing to innovations for **SDG 7: Affordable and Clean Energy** and **SDG 13: Climate Action**. Doctoral candidates have access to world-class research facilities and work under

expert faculty to advance sustainable energy solutions [7]. This program aligns with India's and global goals to increase renewable energy capacity and develop sustainable energy systems. *(UPES explicitly lists "**Renewable Energy**" as a Ph.D. specialisation in Engineering* [7]*, reflecting its commitment to SDG-aligned research.)*

Ph.D. in Safety, Health, and Environment / Sustainability Domains

School of Engineering. Within its doctoral offerings, UPES also enables research in allied sustainable development fields. For example, candidates may undertake a **Ph.D. in Safety Engineering** (listed under Engineering specializations) [7], allowing advanced research in occupational safety, disaster management, industrial hygiene, and environmental risk mitigation – topics linked to **SDG 3 (Good Health & Well-Being)** and **SDG 8 (Decent Work)**. Similarly, doctoral aspirants in disciplines like **Chemical Engineering or Civil Engineering** at UPES can focus their thesis on environmental conservation, clean processes, sustainable infrastructure, or climate-resilient development. The *School of Engineering Ph.D. program* emphasizes independent, innovation-driven research with real-world impact [7]. Many of its specializations (e.g. **Ph.D. in Geoscience, Civil, Chemical Engineering**) can be oriented toward sustainability challenges – from water resource management (SDG 6) to sustainable industrial processes (SDG 9) – depending on the candidate's research proposal and mentor expertise. In essence, UPES's doctoral framework is flexible, enabling scholars in **management, law, and liberal studies** as well to pursue sustainability and SDG-aligned research topics (for instance, a Ph.D. in Economics could explore sustainable development economics, and a Ph.D. in Law could investigate environmental law or climate policy). All Ph.D. scholars are supported to present at conferences and produce research that contributes to solving global and local sustainability issues [7].

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