

## SUSTAINABLE DEVELOPMENT GOALS



## UPC Environmental Brigade: the new space in the fight against climate change



The UPC Environmental Brigade is a training space for agents of change that seeks to promote environmental conservation and the fight against climate change.

The purpose of this initiative was to create an environmental awareness and education program to generate a group of volunteers made up of UPC students, and thus contributing to SDG 13 "Climate Action" of the United Nations 2030 Agenda.

The topics covered in the program were diverse, ranging from climate change focus to content related to greenhouse gas emissions, responsible consumption, eco-efficient habits, carbon credits in the market, renewable energy, among others.

The aim was to contribute to environmental protection, applying a playful and participatory methodology that



will promote the creation of innovative projects in the fight against climate change. The activities were free and conducted virtually over seven sessions.

### **Campus Zero Plastic**



With the objective of progressively reducing and ultimately eradicating the consumption of single-use plastic across all our campuses and locations, including those generated by the acquisition of goods and services in our value chain, and in line with our commitment to SDG 13 Climate Action, a work plan was initiated in 2022 to implement the Plastic-Free Campus project.

To achieve this, guidelines were developed to be followed by the entire UPC Community, so that they understand the importance of reducing plastic use and the goals and commitments we aim to achieve through the collective efforts of the entire community.



### I. OBJETIVO GENERAL

Disminuir ylo erradicar, de manera progresiva, el consumo de plástico de un solo uso de todos nuestros campus y sedes, incluyendo aquellos que son generados por la adquisición de bienes y secucións que selicitamos en puestra adetem de valor.

### II. OBJETIVOS ESPECÍFICOS

- Alcanzar nuestra meta de ser una universidad carbono neutral, definida en la estrategia de sostenibilidad UPC.
- Reducir nuestras emisiones de gases de efecto invernadero en el alcance 2 y 3.
- Realizar un uso eficiente de los recursos naturales que son utilizados para nuestras actividades.
- d) Contribuir con el Objetivo de Desarrollo Sostenible (ODS) 12 Producción y Consumo Responsable y el ODS 13 Acción por el Clima.
- c) Concientizar y promover entre nuestra comunidad universitaria en el uso y consumo de insumos y materiales reaprovechables y sostenibles.
- f) Cumplir con la normativa vigente Ley que Regula el Plástico de un solo Uso y los Recipientes o Envases Descartables, Ley N\* 30884.

### III. ALCANCE

Los lineamientos aplican a toda nuestra comunidad universitaria, que incluye alumnos, docentes administrativos. Además, aplica también para nuestros proveedores de bienes y servicios.

### IV. DOCUMENTOS A CONSULTAR

- SGA-MA-01 Manual del Sistema de Gestión Ambiental
- SICA-PYO-05 Política Integral de Seguridad, Salud en el Trabajo y Medio Ambiente
- SICA-PYO-19 Objetivos Ambientales
- SGA-I-01 Ecoeficiencia
- SGA-P-06 Manejo de Residuos no Peligroso

# Photography Contest "Imágenes para un desarrollo sostenible"







The Communication and Photography program, in collaboration with the Embassy of Israel, organized the contest 'Imágenes para un desarrollo sostenible'. The contest themes were the Sustainable Development Goals (SDGs).

Ambassador Eran Yuvan and Mariana Montalvo, director of the Communications and Photography program at UPC, awarded prizes to the three winners of the "Imágenes para un desarrollo sostenible" contest.

The objective of the contest was to foster creativity through photography, focusing on some of the Sustainable Development Goals outlined in the UN's 2030 agenda; related to health and well-being, quality education, gender equality, climate action, and innovation and entrepreneurship.

## **Edition 93 of Punto Seguido Magazine**



Edition 93 of Punto Seguido magazine, produced by students of CommunicationS and Journalism, raises awareness about threats to the environment.

This publication was prepared by seventh-term students in both printed and virtual formats.





## Influence of Cement on Concrete Mix Designs through Sustainability Indicators



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**Abstract:** Internationally, the most widely used concrete mix design methods are the American Concrete Institute, Department of Environment, Indian Standard, Fineness Modulus and Walker. These methods propose the dosage of materials from tables and graphs developed from multiple experiments and generalize the designs to achieve optimum strength, durability, and quality performance. However, sustainability does not contemplate the design, especially cement, which is responsible for CO2 emissions and the cost of concrete. The study analyzed the procedure and dosage of five methods for a 20 MPa strength concrete mix in the laboratory and applied them to beams and columns in a multi-family building using sustainability indicators. The results indicate that the IS method uses water efficiently, is more economical, and requires less cement, while the ACI method generates a positive environmental and social impact due to the efficient consumption of materials.

**Keywords:** Aci Method, Cement, Concrete mix design, Is Method, Sustainability indicators Materials Science Forum, 2022, Volume 1058, pages: 107-111 https://doi.org/10.4028/p-2fw248